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The Dissertation Committee for The University of Texas at Brownsville Certifies that this is the
Approved Version of the Following Dissertation:

Improving Academic Writing Skills among Undergraduates at a Hispanic Serving University in
South Texas with Cooperative Learning, Scaffolded Instruction, and Formative Feedback

By

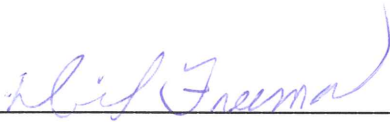
Lori Wells

A Dissertation Presented to the Graduate Faculty of the College of Education in Partial
Fulfillment of the Requirements for the Degree of

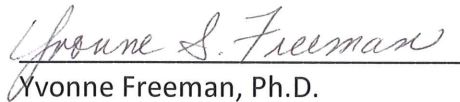
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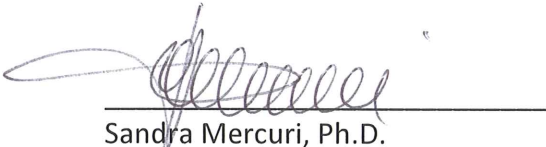
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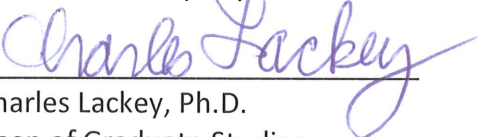
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(April 3, 2012)

Improving Academic Writing Skills among Undergraduates at a Hispanic Serving University in
South Texas with Cooperative Learning, Scaffolded Instruction, and Formative Feedback

Dissertation

Presented to the Graduate Faculty of the College of Education

At The University of Texas at Brownsville

In Partial Fulfillment of the Requirements for the Degree of

Doctor of Education in Curriculum and Instruction with an Emphasis in Bilingual Education

By

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David Freeman, Chair

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Abstract

Three teaching strategies: scaffolded instruction, cooperative learning, and formative feedback were analyzed to determine their effectiveness in improving academic writing skills among undergraduates at a Hispanic serving university in south Texas. Hispanic youth in the United States are graduating from high school and college at significantly lower rates than students from all other ethnic backgrounds. This mixed methods study was conducted during the spring semester of 2011. Forty-six students from two education classes participated. Data from a pre and post test survey, writing samples, and interviews were analyzed. Positive gains were seen in all areas of academic writing, but larger gains were seen in some areas of academic writing than others. The majority of the participants in this study improved substantially in their ability to follow APA formatting guidelines and in the area of style. Small positive gains were observed in the areas of writing mechanics, content, and organization. The three instructional strategies used in this study were perceived by the participants to support growth in academic writing. All of the participants perceived the instructional techniques used in this study to be helpful techniques for supporting growth in academic writing, regardless of their language or educational background. A major implication of this study is that college professors should use a combination of cooperative learning, scaffolded instruction, and formative feedback to support students in learning the different types of academic writing needed for success in college.

Dedication

I dedicate this dissertation to Hispanic college students throughout the United States, and particularly to Hispanic college students in south Texas. By acquiring college degrees and pursuing professional careers, you are changing the educational and economic outlook for future generations of Hispanic youth. In addition, I dedicate this dissertation to Hispanic teachers who serve as role models for Hispanic youth and provide these young people with the skills and self efficacy needed to dream of going into a professional career, and the ability to pursue those dreams through higher education.

Acknowledgements

I would like to thank my dissertation committee for sharing their knowledge and wisdom with me. I appreciate the many hours that each of you have spent reading this document and providing suggestions to make it better. I would like to thank my dissertation chair, Dr. David Freeman, for helping me to understand the nuances of language acquisition, literacy, and academic language. I also appreciate the many times when you have helped me to remain focused and grounded.

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Chapter 1

Education is the single most effective way to integrate the burgeoning population of Latinos into the U. S. economy and society. Thus, if the high dropout rates and low educational achievement of Latino youth are not turned around, we will create a permanent underclass without hope of integrating into the mainstream or realizing their potential to contribute to American society (Gándara and Contreras, 2009, p.13 & 14).

Gándara and Contreras (2009) argue that the dramatic differences in academic achievement and school success between Latino or Hispanic students of all ages and their peers from other cultural and ethnic backgrounds are creating a permanent Latino underclass. Research suggests that some of the possible reasons for this trend in society lie in inadequate first language support in school, the effects of poverty, and limited access to rigorous educational programming (Gándara & Contreras, 2009). This problem is particularly apparent in the disparities in the high school and college graduation rates between Hispanics and other student populations (Bridgeland, Dilulio, & Morison, 2006; Gándara & Contreras, 2009; García, Kleifgen, & Flachi, 2008). Much has been written about the under-achievement of Hispanic students in public K-12 schools, but there is limited research about meeting the academic needs of Hispanic students who are in college. The focus of this dissertation is on meeting the academic writing needs of Hispanic college students at the college level.

In this chapter, the demographics of the Hispanic population as a whole, as well as the Hispanic student population throughout the United States, Texas, and the south Texas region referred to as the Rio Grande Valley, where this study is being conducted, will be reviewed. Factors that have impacted educational attainment among the Hispanic population and some potential solutions to this problem will be examined. The purpose, research questions, and theoretical underpinnings behind this research study will be discussed. The teaching strategies

that will be evaluated in this study will be described, and the limitations, assumptions, design controls, and key terms will be explained.

Much of the literature about this population uses the term Latino. The U.S. Census uses the term Hispanic when referring to the same population. The terms Latino and Hispanic will be used interchangeably throughout this dissertation, with preference given to the term Hispanic, when appropriate. Although there are many terms used to describe students whose primary language is something other than English and in the process of learning English, Garcia's (2008) term emergent bilinguals will be used to describe this population in this dissertation.

Demographics of the Hispanic Population

The Hispanic population in the United States has been growing rapidly over the last two decades and it is anticipated that it will continue to expand in the future (Census, 2006; García, et al., 2008). In 2010, 15.5% of the U.S population is Hispanic. This percentage is projected to grow to 20.1% by 2030 (Census, 2010a). Currently, there are four states that have populations that are over twenty-five percent Hispanic, as shown in Table 1.

Table 1

States with Populations that are Over Twenty-Five Percent Hispanic

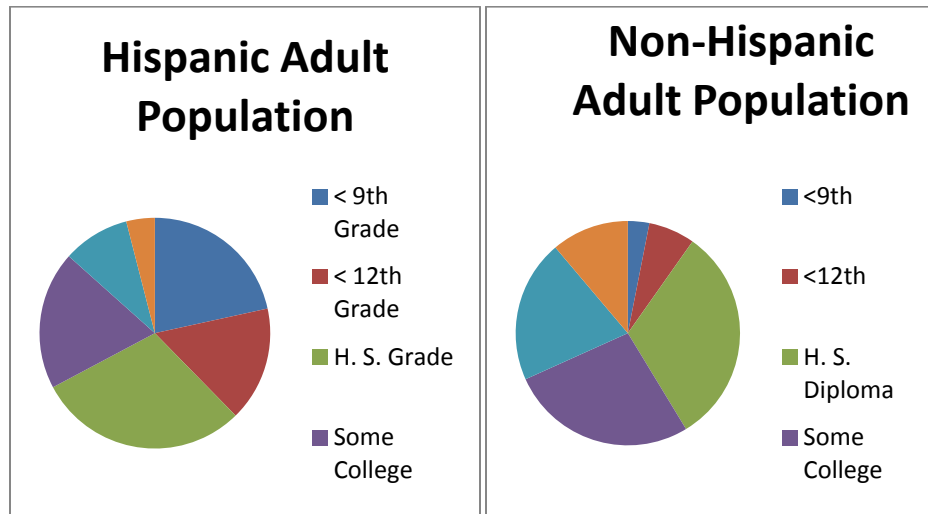
States with Populations Over 25% Hispanic	Percentage of Population that is Hispanic
New Mexico	42.1%
California	32.4%
Texas	32%
Arizona	25.3%

The percentages in each state vary significantly by county. The Hispanic population is substantially larger in the south Texas region that borders Mexico that is referred to as the Rio Grande Valley than in other parts of Texas. In the lower Rio Grande Valley region, the site of this study, the Hispanic population ranges from 86.1% in Cameron County to 86.6% in Willacy County and 89.5% in Hidalgo County (Census, 2010b). In contrast, several other parts of the state of Texas have Hispanic populations that are significantly below the state average. For example, Jasper County's population is 4% Hispanic.

Educational Attainment by Hispanics and Non-Hispanics

According to the U. S. Census (2008) educational attainment varies significantly between the Hispanic population and non-Hispanic population. As Figure 1 shows, the adult Hispanic population overall has significantly lower educational levels than the adults from other ethnicities in the United States. Thirty-eight percent of the adult Hispanic population in the United States has earned less than a high school diploma. Sixty-seven percent have never attended college, and only thirteen percent have earned a college degree. This compares with less than ten percent of adults from all other races who have less than a high school diploma, and thirty-two percent from all other races who have earned a bachelor's degree or higher (Census, 2008).

Figure 1: Comparison of Educational Attainment between Hispanic and Non-Hispanic Adults



The Hispanic Student Population

Approximately nineteen percent of the U. S. school age population in 2006 was Hispanic (*The Condition of Education, 2005, 2006*). It is anticipated that this percentage is likely to grow to around twenty-five percent by 2025 (*The Nation's Report Card, 2007*). Currently, only about 53% of Hispanic students in the United States who start the ninth grade graduate from high school in four years, and about fifty percent never earn a high school diploma (Gándara and Contreras, 2009). Considering the rapid growth of the Hispanic school age population in the United States, it is imperative that the public education system improve school success rates among Hispanic students and implement more effective programs for emergent bilingual students at all levels (Freeman & Freeman, 2009b; Gándara & Contreras, 2009; García, et al., 2008).

Factors Impacting Hispanic Educational Attainment

There are many factors that impact academic achievement among Hispanic students (Gándara & Contreras, 2009; García, 2009; Olsen, 2010). The views that educators have about culture, language acquisition, learning styles, curriculum, and teaching methodologies all have an impact on Hispanic students' academic success (Freeman & Freeman, 2001; García, 2009). Limited school resources and restricted access to rigorous college preparation classes affect students' level of achievement and their ability to get into college (Adelman, 1999; Barr & Dreeben, 1983; Gamoren, 1992; Gándara, 2003; Goddard, 2001; Lucas, 1999; Maxwell-Jolly, Gándara, & Benavídez, 2007; Solorzano, 2004; Woolfolk, 1990; Zehler, et al., 2003). Parental education, social and cultural capital, issues related to self efficacy, and students' views about themselves within the context of the education system affect how successful each student is in school and whether they aspire to pursue a college degree (Delgado-Gaitan, 1990; Forsbach & Pierce, 1999; Gándara & Contreras, 2009; Haro, Rodriguez, & Gonzales, 1994; Hayes-Bautista, 2004; Phinney, 1989; Steele, 1997; Steinberg, 1996; Suarez-Orozco & Suarez-Orozco, 1995; Useem, 1992). Finally, social issues related to poverty also have a significant impact on students' school outcomes (Brown & Thoebold, 1998; Crowley, 2003; Gándara & Contreras, 2009; Gibson, Bejinez, Hidalgo, & Rolon, 2004; Marsh & Kleitman, 2002; South, Baumer, & Lutz, 2003).

Statement of the Problem

The factors described above have had a significant impact on the educational attainment of the Hispanic population. Hispanic youth in the United States are graduating from high school and college at significantly lower rates than students from all other ethnic background

(Bridgeland, et al., 2006; Gándara & Contreras, 2009; Olsen, 2010; Roberge, 2002; Wiley, Lee, & Rumberger, 2009). A large percentage of Hispanic students have not learned the academic language skills needed for success in post-secondary academic settings (Freeman & Freeman, 2009b). In particular, deficits in written academic language appear to be one of the major factors that are contributing to this disparity (Singhal, 2004).

Purpose of Study

The purpose of this study is to analyze the effectiveness of three specific teaching strategies: scaffolded instruction, cooperative learning, and formative feedback, in improving the academic writing skills of Hispanic lower division undergraduates at an open enrollment university in south Texas. Deficits in written academic language appear to be one of the major factors that are contributing to the disparity in educational attainment between Hispanic students and students from other ethnicities (Singhal, 2004). Much has been written about the underachievement of Hispanic students in public K-12 schools, but there is limited research about meeting the academic needs of Hispanic students who are in college.

Research Questions

Students enrolled their second college level education class are expected to be able to write reviews of scholarly journal articles in the field of education. Many Hispanic students struggle with this task because they lack the needed academic writing skills. As students move into upper division college classes the academic writing demands continue to increase. In order to meet the academic writing needs of Hispanic college students, the following research questions will be examined in this study:

1. Are the academic writing skills of Hispanic college students in south Texas improved when a cooperative learning teaching model combined with scaffolded instruction and formative feedback is used?
2. What are the perceived academic benefits of having participated in a college class where a cooperative learning teaching model was used?
3. Is the impact of the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback different for Hispanic college students in south Texas who are long-term English language learners, newly arrived immigrants with adequate formal schooling, and students whose first language is English.

Theoretical Underpinnings of Research Study

Hispanic college students are struggling in school because they do not have the academic language proficiency and advanced literacy skills needed for academic success in the college setting (Wiley, et al., 2009). Most college classes provide instruction in a manner that does not support the instructional needs of many Hispanic college students (Carson, Chase, Gibson, & Hargrove, 1992). The use of appropriate instructional techniques that are based on second language acquisition theory would increase the academic success rates among this student population (Meltzer & Hamann, 2005). A supportive class environment that encourages students to get to know each other through small group interaction and problem solving increases student engagement in the learning process and increases opportunities for skill and language acquisition through informal, goal directed problem solving (Johnson, Johnson, & Smith, 2007; Kagan, 1986).

Academic Language

Cummin's (1981, 2008) explains the difference between the language used for conversation and the language used in academic settings as conversational fluency and academic language proficiency. Conversing with teachers and peers in class or socially, writing a simple note or e-mail, and communicating basic wants and needs falls within the category of conversational fluency. Academic language proficiency involves being able to read, write, speak, listen, and understand the complex academic content of various fields of study (Cummins, 1981, 2008). Educators often mistakenly believe that Hispanic students, who start school with Spanish as their primary language, are fluent in English before they have developed the English language skills needed to be academically successful. It generally takes between one and three years for someone who is immersed in a second language to develop conversational fluency (Cummins, 1981, 2008). Academic language proficiency takes much longer to develop. On average, it takes between five and seven years to develop academic language proficiency, but it can take ten years or more to become proficient in academic language (Cummins, 1981, 2008).

Cummins' Language Theories

Cummins' language development theories help to explain why many Hispanic students who were exposed to Spanish during early childhood and instructed in English for most of their school career tend to lag behind their English dominate peers in the development of academic language. These theories also explain why students who moved to the United States in secondary school who have a strong educational background in their first language tend to be more academically successful than students who immigrate to the United States in elementary school. They also explain why students who immigrate to the United States with a strong

academic background in their first language are more successful than students who immigrate with limited or interrupted educational backgrounds.

Cummins' linguistic interdependence theory. Cummins (1981) linguistic interdependence theory is based on the concept that students can draw upon knowledge that was acquired in their first language to develop academic proficiency in both their first and second language. If a student has received effective instruction in language skills in their first language, these skills will transfer, if the student is motivated to learn the new language and they have adequate opportunities to learn that language (Cummins, 1981, 2008). Older immigrant students who have well developed academic language in their first language will develop academic language proficiency in their second language more quickly than their younger immigrant peers whose academic language proficiency in their first language is less well developed because of the linguistic interdependence between the two languages (Cummins, 1981). Students are able to draw upon information and knowledge learned in one language, to support their learning in the second language.

Cummins' threshold theory. Cummins' (1981) threshold theory of bilingualism describes the levels of competence that are achieved with different levels of language development. He uses the image of a three-story house to describe the threshold theory.

On the third level of the house, students have age appropriate skills in both of their languages. At this level, the bilingual or multilingual student may have a cognitive advantage over their monolingual peers. The individual is able to communicate fluently both orally and in print in two or more languages, increasing their opportunities to participate fully in today's global economy.

On the second level of the house, the individual develops age appropriate language competence in one of their languages, but not in both languages. A partially bilingual student and a monolingual student will have similar cognitive skills. Bilingualism or multilingualism is unlikely to have either a positive or negative effect on their cognition. The best case scenario for an emergent bilingual who is immersed in English without the benefit of an appropriate bilingual program is that they will become fluent in English oral and written communication, but they will not be fluent in their primary language.

On the first level of the house, the individual's level of competence is inadequately developed in either their first or second language. At this level, a student may experience negative cognitive effects from being exposed to two languages because they are required to function in their second language when their first language has not been fully developed. This causes the student who is in the process of learning a new language to do so, without the foundation skills in their first language that are needed to understand the information that is being taught. These students are likely to struggle academically, and have low levels of competence in both languages. Students who do not have the opportunity to participate in an appropriate bilingual program frequently end up functioning at the first level in the threshold theory. They do not develop adequate oral and written communication skills in their primary language, and they are asked to function academically in their second language without needed first language support. While their monolingual peers are focused on learning academic content, students who are in the process of learning a second language are attempting to learn a new language at the same time that they are learning the academic skills needed for success at their enrolled grade level. This often causes them to fall behind their peers who are being taught academic content in their primary language.

Krashen's Monitor Model of Second Language Acquisition (SLA)

Krashen (1985) developed five interrelated hypotheses to account for second language acquisition. He hypothesizes that language is acquired when an individual receives oral or written input that they understand and when they use their second language for real purposes. He believes that language skills are learned in a specific order, and that their level of comfort with the language learning situation impacts how much language that they master. His theory of SLA helps to explain why English Language Learners who have been educated in the United States in educational environments that fail to support language acquisition and students who have recently immigrated to the United States may struggle with the academic language needed for success in college (Krashen, 1985).

Acquisition learning hypothesis. Krashen (1985) distinguishes between language learning and language acquisition. Language learning is the conscious process of studying different aspects of a language such as vocabulary and grammar. Language acquisition occurs subconsciously when people are using language for real purposes. It can occur through the process of communicating with other people and through reading. When people use language for real purposes and they understand the messages that they receive, they are in the process of acquiring language (Freeman & Freeman, 2001).

Natural order hypothesis. Krashen hypothesizes that different aspects of language are acquired in a certain order (Dulay & Burt, 1974). People tend to use present tense before the use past tense when acquiring a language. They are also likely to use singular verbs before they use plural verbs, and these skills follow a natural order (Krashen & Terrell, 1983).

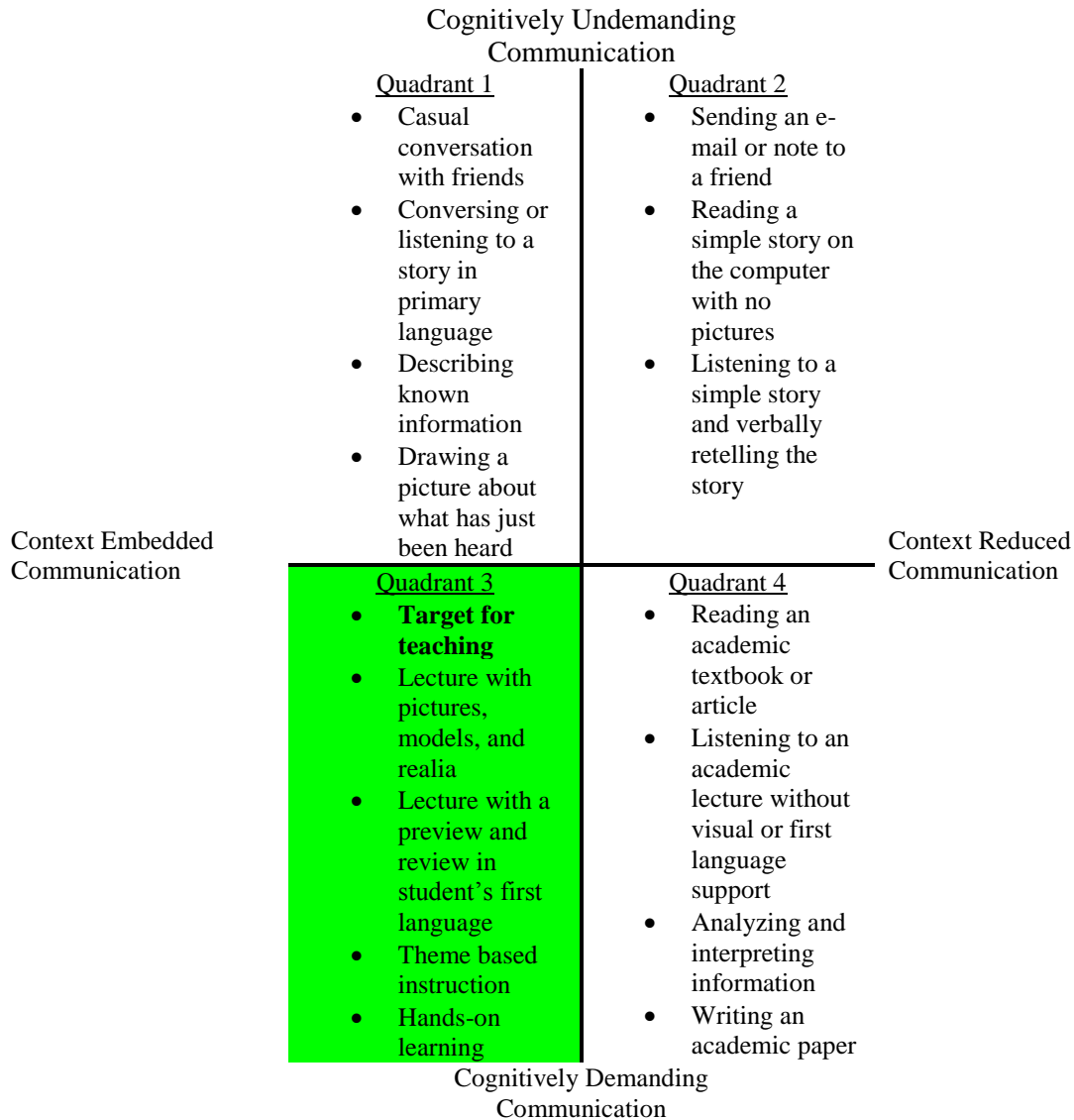
Monitor hypothesis. The monitor hypothesis explains how language learning and language acquisition work together (Krashen & Terrell, 1983). Language acquisition is the process of acquiring the vocabulary and syntax needed to communicate. Language learning is the process of learning the rules of a language. When people are most concerned with relaying a message, they focus on using their vocabulary to communicate meaning. When people are concerned with saying or writing information correctly, they are focused on the rules of the language. In this situation, they are monitoring their language for accuracy. When a person is focused on accuracy while they are speaking, they tend to slow down their speech, which may affect their fluency or the clarity of their message. When a person is writing in their second language they have time to use their monitor to focus on accuracy.

Input hypothesis. When learning a new language, people learn by getting oral or written messages that they are able to understand or comprehend. This is called comprehensible input. Improvement in language acquisition occurs when the input is slightly higher than what the learner already knows. If the input is too complex, no acquisition will occur. Krashen refers to comprehensible input as input plus one (Krashen & Terrell, 1983).

Emergent bilinguals will be more academically successful, if the information that they are learning is taught in a manner that they are able to understand. In his affective filter hypothesis, Krashen (2003) argues that language is developed most successfully when information is acquired in an environment that does not cause the student to experience a high level of anxiety. Krashen (1985, 2003) postulates that languages is acquired most effectively through reading literature of the student's choice and engaging in authentic communication (Krashen, 1985, 2003).

Cummins (1984) describes the curriculum elements needed for second language learners to develop academic language. When second language learners are provided with cognitively challenging instruction with supports that help make that instruction more comprehensible, they are able to develop the academic language that is needed for academic success (Cummins, 1984). Hands-on learning, theme-based lessons, and first language support using a preview, view, and review model provide students with the comprehensible input needed to make academic progress. The use of realia and visual aids such as pictures, models, maps, and graphs also help students to gain more understanding of complex academic concepts (Freeman & Freeman, 2001; Freeman & Freeman, 2002). Teaching will be most effective if it is cognitively challenging and context embedded. The comprehensible input model (Cummins, 1981) is described in Figure 2 with examples of cognitively demanding and cognitively undemanding tasks and examples of context embedded and context reduced communication.

Figure 2: Comprehensible Input Model



Affective filter hypothesis. The affective filter theory explains the impact of emotions on the process of acquiring a new language (Krashen & Terrell, 1983). When a person is nervous, embarrassed, bored, or disengaged, their ability to acquire new language skills is compromised, even if the information is provided in a comprehensible manner. The affective filter effects how much information or language is acquired (Freeman & Freeman, 2001).

Zone of Proximal Development Theory

New learning occurs within a student's zone of proximal development, which is the difference between the student's current level of development and their potential development, when they are provided with guidance and support from an adult mentor or a more skilled peer through the process of working together to solve a specific problem (Vygotsky, 1978). The zone of proximal development theory supports the use of scaffolded instruction, formative feedback, and cooperative learning as tools for instruction.

Scaffolded instruction. Scaffolded instruction involves setting specific learning goals, breaking the task into manageable parts, providing examples, and giving specific, individualized feedback about how the student's work differs from the expectation (Moreno, 2004). Clearly defining and modeling the expectation and providing opportunities for the student to try the task, without fear of repercussions if the task is done incorrectly, is used to help students to learn complex tasks. As skills are developed, the amount of scaffolded support is reduced (Branford, Brown, & Cocking, 2000; Vygotsky, 1987).

Formative feedback. New skills are acquired when students are taught the component skills and these skills are combined to master increasingly more complex tasks (Wood, Bruner, & Ross, 1976). Formative feedback provides students with information that is designed to change either their thinking or their behavior (V. J. Shute, 2008). Effective formative feedback is timely, supportive, specific, and non-punitive. It focuses on the task rather than the individual. Researchers have reported that providing students with timely, specific, non-punitive feedback about how to improve a targeted skill is more effective than feedback that simply tells the student whether their response is correct or incorrect (Moreno, 2004; V. J. Shute, 2008).

Social Interdependence Theory

The social interdependence theory (Koffka, 1935) supports the use of a cooperative learning instructional model to help students to acquire the academic language skills needed in college. Small group projects help students to learn in an environment that allows them to learn from each other by sharing ideas and clarifying complex concepts in an understandable manner.

Cooperative learning is one of the instructional techniques that is being evaluated in this study because of its' potential to reduce anxiety in the classroom setting and increase student engagement. Cooperative learning is based the work of Koffka in the early 1900s, which was refined by Lewin (1935, 1948), and Johnson and Johnson (1987). It is based on the interdependence of members of a group. This interdependence can be positive or negative. Positive interdependence occurs when all members of a group believe that they can be successful only if they work together with others to achieve a mutual goal (Johnson & Johnson, 1987; Lewin, 1935, 1948). This encourages group members to support each other in achieving their mutual goals (Johnson, Johnson, & Smith, 2007). A key factor in the success of cooperative learning involves trusting that one's teammates will take care of their portion of the responsibilities. This requires individuals to open themselves up to the vulnerability of having to rely on others (Deutsch, 1960, 1962; Duetsch, 1958; Johnson & Johnson, 1987). Kagen (1995) found that students who are working in cooperative groups automatically adjust the level of their language to help all member of the group to understand the concepts being discussed, providing their fellow team mates with more comprehensible input (Kagen, 1995; Krashen, 1991).

Cooperative learning. There are five major components of cooperative learning (Johnson & Johnson, 1987). The first component is positive interdependence, which requires students to have mutual goals. Students work together, sharing materials and information, for

joint rewards. Group members each have an assigned role, and students must feel that they are dependent upon each other for the project to succeed. The second component of cooperative learning is face to face interaction. Verbal interactions are structured to expand learning as students summarize information orally, and elaborate on the ideas of their teammates. Each team member is accountable for all of the members of the team learning the required information. This is assessed through randomly calling on different team members to answer for the whole group, or through individual assessments. Students are taught the social skills needed for effective collaboration through the small group problem solving process. Finally, groups are given time to process how effectively they worked together. They may also receive feedback from the teacher or other observers of the group process (Johnson & Johnson, 1987; Johnson, et al., 2007).

Study Design

This mixed methods study is being conducted during the spring semester of 2011. Fifty students from two sections of the second course in the series of courses required for teacher certification in Texas that are being taught by the researcher at an open enrollment university in south Texas are participating in this study. Quantitative data will be analyzed from the responses to forced choice items on a pre and post test cooperative learning survey and the items on a writing analysis matrix.

Scaffolded instruction, cooperative learning, and formative feedback will be used to help Hispanic undergraduates to improve their written academic language skills. Students will write three reviews of academic journal articles during a one semester course in education. They will participate in several lessons designed to help them to understand the expectations of each

writing assignment. They will be provided with examples and written guidelines for each writing assignment, and they will receive individualized formative feedback on each paper that they write.

A phenomenological approach will be used to analyze the qualitative data generated from interviews and open-ended survey questions. An observation protocol and field notes will be used during interviews (Spradley, 1980). Comparisons will be made across informants to identify major themes.

Limitations, Assumptions, and Design Controls

This study is being conducted with a relatively small sample of Hispanic students over a six-month timeframe. Participants will only be exposed to the instructional techniques being evaluated in this study for one semester. All research will be conducted in different sections of a class that are being taught by the researcher, limiting the amount of information available on how transferable these techniques are to other classes. The researcher does not have control over the participants' concurrent or previous school experiences. The researcher also has no ability to control the number of students from different experiential background who enroll in the class. It is assumed that the students who participate in this study are a fairly representative sample of the Hispanic college student population in south Texas.

The instruments being used to evaluate student achievement have been used in numerous classes in multiple university settings. The survey that is being used to evaluate student perceptions has been used in several previous studies. The issue of inter-rater reliability is being avoided by have the same person evaluate all of the participants' work, however, a limitation of

this study is that it is being conducted in only one instructor's classes. More rich data would be available, if this study was conducted in classes taught by multiple instructors.

Definition of Key Terms

Discourse

Gee (2008) describes discourses as the shared practices of different social and occupational groups. Each social, academic, or social group has different ways of thinking, conversing, reading, writing, and acting.

Academic Language

Cummins (2008) explains the distinction between conversational fluency and academic language proficiency as the difference between the ability to converse fluently and the proficient use of the academic registers needed for school. The academic registers of school involve both oral and written communication. Academic lectures and formal written papers use formal academic language.

Culturally and Linguistically Diverse Students

Students who are exposed to a language other than English and cultural practices from a country other than the United States in their home on a daily basis.

English Language Learners or Emergent Bilingual Students

A sub-set of the culturally and linguistically diverse student population that has been identified by public K-12 schools as having limited English proficiency.

Generation 1.5

Harklau (2003) and Roberge (2002) describe generation 1.5 students as those students who were either born in the United States or who immigrated to the U.S. at school age and speak

a language other than English at home, but who are familiar with the cultural practices of the United States. Roberge (2002) includes students who migrate back and forth between their home country and the United States in this group.

Long-term English Language Learners

Long-term English learners are students who have been educated in the United States for a minimum of five years, but who have not become proficient in academic language or literacy skills in English.

Standard English Learners

Students who speak non-standardized forms of English, such as different dialects, pidgins, and creoles, often struggle to learn oral and written academic discourse (Garcia, 2009). These students are Standard English learners. Many Hispanic students in Texas, whose first language is English, are Standard English learners, because they speak a Tex-Mex which is a blend of English and Spanish (Freeman & Freeman, 2009).

Conclusion

Hispanic students are entering and completing college at significantly lower rates than students from other ethnic backgrounds (Gándara & Contreras, 2009). Although there are many factors that have impacted the educational attainment among the Hispanic population, one factor that it may be possible to address within the college setting is academic language. Many Hispanic college students start college without the academic writing skills needed for success in the college setting (Wiley, 2002). Unfortunately, the traditional lecture model of instruction does not appear to be meeting the needs of this student population (Lemmers & Murphy, 2002), and a large percentage of Hispanic students, who make it to college, fail to advance to upper division

classes and graduate from college with baccalaureate degrees because they are lacking the academic writing skills needed for success in college. College students need opportunities to learn effective oral and written communication skills within the context of the college classroom (Carson, Chase, Gibson, & Hargrove, 1992; Roberge, 2002).

The effectiveness of three teaching strategies in improving Hispanic lower division undergraduate students' academic writing skills is being examined in this study. These three teaching strategies are cooperative learning, scaffolded instruction, and formative feedback. These strategies are based on Cummins' and Krashen's theories of language acquisition and learning, Kufka's social interdependence theory (Johnson et al., 2007), and Vygotsky's zone of proximal development theory (Vygotsky, 1978).

Chapter 1 has explained the background and conceptual underpinnings of this study along with the problem being examined and the research questions that will be studied. In Chapter 2 the literature on the Hispanic education crisis, language acquisition, and the instructional methods being used in this study will be discussed. Chapter 3 will describe the research design and methodology used in this study. In chapter 4 the qualitative data will be analyzed, and in Chapter 5 the qualitative data will be analyzed. The findings, conclusions, and implications of this study will be discussed in chapter 6.

Chapter 2

American education matters more than ever before...The global workplace requires much more than the simple rote memorization idealized in twentieth century education. Instead, it demands the capacity to think analytically and creatively both within a single discipline as well as in an interdisciplinary manner, the ability to work with people from diverse backgrounds, and understanding of both historical and global perspectives (Suárez-Orozco, Suárez-Orozco, & Todorova, 2008, p.88).

As the demands for a more sophisticated workforce increase, the problem of limited academic achievement and educational attainment among Hispanic students, at all academic levels, has become so serious that some educators have called the situation a crisis (Gandara & Contreras, 2009). This problem is exacerbated by the rapid growth of the Hispanic population in the United States over the last two decades and the anticipated growth in the near future (Census, 2010a; García, et al., 2008). Unless the U.S. educational system begins meeting the academic needs of the Hispanic population more effectively; the social, linguistic, and educational capital of this society will be significantly affected. Failing to meet the needs of this minority group will be likely to result in a decrease of people with the specialized skills needed for the United States to continue to compete in an increasingly complex world economy (Baker, 2006; García, 2009).

Specific culturally relevant and engaging teaching strategies are needed to address the academic achievement needs of the Hispanic student population (Freeman & Freeman, 2001; Menken & Kleyn, 2010; Olsen, 2010). Curriculum and instruction must be relevant to students' lives and relate to their prior knowledge to make what is being taught more understandable, and prepare Hispanic students with the context specific academic language necessary to acquire the specialized knowledge that is critical in today's society (Cummins, 1981, 2008; Freeman & Freeman, 2001; Freeman & Freeman, 2009b). Much has been written about the underachievement of Hispanic students in public K-12 schools, but there is limited research about meeting the academic needs of Hispanic students who are in college. It is crucial for

educators, legislators, and society in general to become more aware of the need for effective educational practices to address the problem of limited educational attainment by Hispanic students (Gándara & Contreras, 2009; García, 2009).

This mixed-methods action research study is being conducted in response to the need for more research on effective practices for Hispanic college students. It is being conducted in two sections of a lower division course in education taught by the researcher at an open enrollment university in south Texas that has a high percentage of Hispanic students. The study will investigate the effectiveness of three teaching strategies designed to increase the academic writing proficiency of Hispanic college students. The specific teaching techniques that will be examined are cooperative learning, scaffolded instruction, and formative feedback. The effectiveness of these strategies will be evaluated based on student perceptions of their effectiveness and by improvement of students' written academic language skills.

In this chapter, demographic data about Hispanics throughout the United States, Texas, and the south Texas region referred to as the Rio Grande Valley, where this study is being conducted, will be reviewed. Next, the risk factors that are impacting educational attainment among the Hispanic student population will be discussed. This will be followed by a discussion of the research on methods for improving academic writing skills. Finally, research on the effectiveness of a specific set of teaching strategies chosen to promote academic success among Hispanic college students will be examined.

The Hispanic Population

Hispanics are the largest and most rapidly growing minority group in the United States. According to the U.S. Census (2010), approximately 45.5 million Hispanic people were living in the United States in 2010. This is about fifteen percent of the population of the United States.

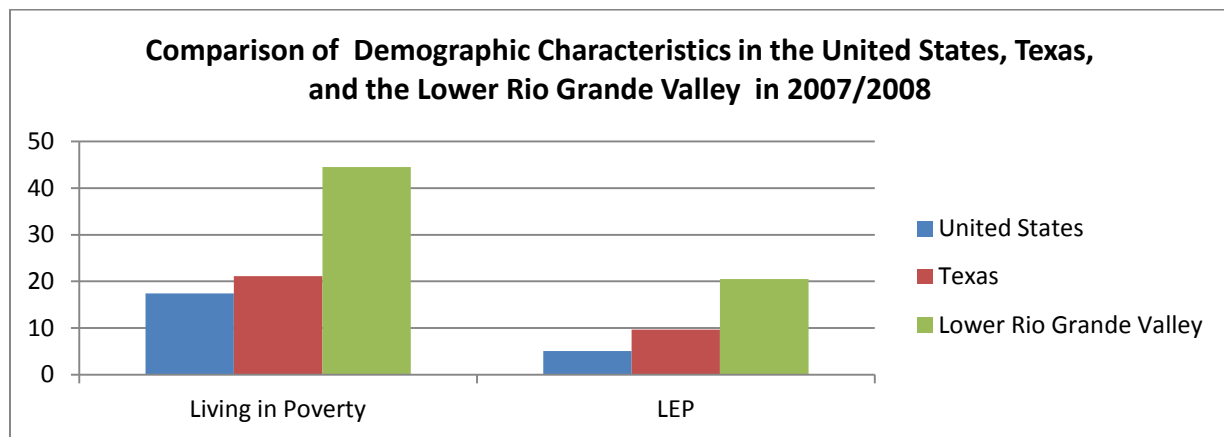
This percentage is projected to grow to around twenty percent by 2030 (Census, 2010a). The Hispanic population in the United States is made up of people from a wide variety of cultural, socio-economic, and linguistic backgrounds. The Hispanic student population in the United States is larger than the adult Hispanic population, and it is growing more rapidly. According to the U. S. Department of Education (2007), nineteen percent of the K – 12 student population was Hispanic in the 2006/2007 school year. This percentage is projected to grow to twenty-five percent by 2025 (Aud, et al., 2010). Considering the rapid growth in the Hispanic student population, it is critical that educators implement strategies to help this student population to succeed academically.

Risk Factors that Impact Hispanic Students' Success

There are several key factors that have been shown to influence some Hispanic students' success. Growing up living in poverty, coming from a home where the primary language is not English, having parents who have low levels of educational attainment, limited social and educational capital, and the effects of academic disengagement are all significant factors that impact the educational attainment of Hispanic students (Gandárra & Contreras, 2009). Students from the lower Rio Grande Valley, the site of this study, are at significantly higher risk for all of these factors than students from other areas of the country. In Texas and the lower Rio Grande Valley K – 12 public schools, the percentage of low income students and students who are identified by the state as limited English proficient (LEP) are significantly higher than the national average. As is shown on Figure 3, nationally, 17.4% of students were identified as low income, and 5.1% were identified as LEP during the 2007/8 school year. During this same timeframe, 21.1% of Texas students were identified as low income, and 9.7% were identified

LEP (NCES, 2010). In the lower Rio Grande Valley, 20.5% of the student population was coded LEP, and 44.5% of the student population came from families that were below the poverty line (NCES, 2010).

Figure 3: Demographic Comparison of Risk Factors Effecting Students in the U.S., Texas, and Lower Rio Grande Valley Public Schools during the 2007/2008 School Year (NCES, 2010)



The Effects of Living in Poverty

Poverty is a significant risk factor that impacts educational attainment among a large percentage of the Hispanic population. Social issues related to poverty have a significant impact on students' school outcomes (South, Crowder, & Trent, 1998; Crowley, 2003; Brown & Theobald, 1998; Gibson, Bejinez, Hidalgo, and Rolón, 2004; Gándara & Cantreras, 2009; Marsh and Klietman, 2002). The effects of poverty go far beyond a lack of material possessions. Children who grow up in poverty are likely to be lacking in nutritious food and access to medical care beginning in early childhood (Rainwater & Smeeding, 2003) They often live in unsafe neighborhoods and move frequently, which results in inconsistent schooling (Rumberger, 2003).

Poverty and achievement. Poverty is a factor that impacts students throughout their school career. Disparities in the academic achievement of students from low socioeconomic backgrounds begin in kindergarten (Gándara & Contreras, 2009; Wilson, 1996). Regardless of their primary language, students from low socio-economic backgrounds often start school with significantly less knowledge of the English language than their peers from middle and upper socio-economic backgrounds (Carlo, et al., 2000). These differences often continue throughout the school careers of students who are poor.

Single parent households. Single parent households are significantly more likely than two parent families to live in poverty (Gándara & Contreras, 2009). The National Early Childhood Longitudinal Study (1998) found that only sixty-five percent of Hispanic kindergarteners lived with both of their biological parents (Gibson, Bejinez, Hidalgo, and Rolón, 2004; Gándara & Contreras, 2009). Births into single parent households are increasing among the Hispanic population faster than any other race (Census, 2007).

Schools in low income neighborhoods. Families who live in poverty tend to move more frequently than middle class families, often interrupting student access to consistent educational programming (South, Crowder, & Trent, 1998; Crowley, 2003). Poor families are also more likely to live in low-income neighborhoods. Students who live in low-income neighborhoods often face more safety risks and have fewer opportunities to learn about different types of careers or the advantages of attending college (Ong & Terriquez, 2008; Steinberg, 1996).

Students who grow up in poor neighborhoods frequently attend neighborhood schools that are highly segregated and where more than three-fourths of the students attending the school are from minority backgrounds (C. Suárez-Orozco, M. Suárez-Orozco, & I. Todorova, 2008a). These highly segregated schools often are segregated in three ways. The majority of the student

body are students of color. Many of these students are living in poverty; and often they come from linguistically and culturally diverse backgrounds (Suárez-Orozco, et al., 2008a).

Hispanic students who grow up in poor neighborhoods and attend their local schools frequently have fewer resources, and less skilled teachers and administrators than students who attend schools in middle class neighborhoods (Gándara & Contreras, 2009; Gándara, 2003; Goddard, 2001; Woolfolk, 1990; Zehler, et al., 2003). Many of these students have limited access to college preparatory and advanced placement classes while they are in high school (Adelman, 1999; Barr & Dreeben, 1983; Gamoran, 1989; Gándara & Contreras, 2009; Lucas, 1999; Solarzano & Ornelas, 2004). These students often have less access to computer technology at home or in school, which increases the impact of the digital divide between students who are poor and students who are from middle or upper class backgrounds (Fairlie, 2004; Gándara & Contreras, 2009; Wilhelm, Carmen, & Reynolds, 2002).

Poverty and participation in extracurricular activities. Students from low socioeconomic backgrounds frequently have less opportunity to participate in extracurricular activities than students from middle and upper socio-economic backgrounds. Participation in extra-curricular activities generally helps students to build the social capital needed for access into college (Brown & Theobald, 1998; Gándara & Contreras, 2009; Gibson, et al., 2004; Marsh & Kleitman, 2002). A study done by Gibson, Benjítez, Hidalgo, and Rolón (2004) found that Hispanic students from low socio-economic backgrounds participate in extracurricular activities at much lower rates than their white middle class peers. They also found that students from all ethnic and socio-economic backgrounds performed better academically when they participated in extracurricular activities (Gibson, et al., 2004).

The Effects of Entering School Speaking a Language Other than English

Another critical risk factor that impacts the educational attainment of many Hispanic students is that they start school speaking a language other than English. There are many educational reasons why emergent bilingual students struggle academically. Students who start school speaking a language other than English may not receive appropriate bilingual instruction because their parents decline bilingual education services, or the school may not provide the kind of bilingual programming needed for academic success, (Baker, 2006; Freeman & Freeman, 2001; Gándara & Contreras, 2009).

Many school districts provide one to two years of first language support, before moving students into an English immersion program (García, et al., 2008; Goldenberg, 2008; Thomas & Collier, 1997). Often these programs focus on English oral language development without focusing on literacy skills or language development in the student's primary language. Students in these programs learn to speak English, but struggle with reading and writing in English. The effects of inadequate educational programming for students who are emergent bilinguals and students from culturally and linguistically diverse backgrounds has a significant impact on the educational attainment of many Hispanic students (Brown & Theobald, 1998; Crowley, 2003; Gándara & Contreras, 2009; García, 2009; Gibson, et al., 2004; South, Crowder, & Trent, 1998). Literacy in a student's first language can transfer and supports the acquisition of literacy in a second language. Students who learn to read and write in their primary language generally have more effective reading and writing skills in their second language than students who are taught to read and write in their second language without being given reading and writing instruction in their primary language (Christian, 2000; Cummins, 1981; Slavin & Cheung, 2004).

There are several other factors that impact students who enter school in the United States speaking a language other than English. Emergent bilingual students' prior academic experiences affect how successful they are in school (Freeman & Freeman, 2009a). Whether they attend school in the United States consistently once they enroll, or move back and forth between their home country and the United States also affects their academic progress (Harklau, 2003; Olsen, 2010). Several different categories have been used to help explain these differences in the academic background of the emergent bilingual student population.

Differences among emergent bilinguals. In order to understand the needs of emergent bilingual students, it is important to recognize that they are not all part of homogeneous groups. Although students classified by public K-12 schools as Limited English Proficient (LEP) all have low levels academic language proficiency in English, the emergent bilingual student population is comprised of many different types of students who come from a wide variety of backgrounds (Freeman & Freeman, 2009a). These students have specific academic and experiential characteristics. Emergent bilinguals include students who were born in the United States, as well as students who moved to the United States after they started attending school. Emergent bilinguals also include long term English language learners, generation 1.5 students, newly arrived with adequate schooling students, newly arrived with interrupted or limited formal schooling students, and Standard English learners (Freeman & Freeman, 2009a; Harklau, 2003; Menken & Kleyn, 2010; Olsen, 2010). Each of these categories is described in more detail below.

Long-term English language learners (LTELL). Students who were born in the United States or who moved to this country during early childhood, and start school speaking a language other than English, are considered long-term English language learners if they are still classified

as ELLs after six years. Fifty-three percent of the students who are identified as English Language learners (ELLs) were born in the United States (Capps, et al., 2005; García, et al., 2008). Many long-term English learners have received all of their education in the United States, starting in kindergarten or Pre-K. Students who start school in kindergarten or Pre-K speaking a language other than English who do not receive adequate first language support often struggle academically throughout their school careers (Menken & Kleyn, 2010; Olsen, 2010).

Long-term English language learners are also a diverse population. Socio-economic factors and varying levels of first language support throughout their schooling have a significant impact on the academic success of this population (Menken & Kleyn, 2010; Olsen, 2010). Many LTELLs struggle with academic language proficiency and advanced literacy skills, but these students generally have good social communication skills in English (Cummins, 2008; Freeman & Freeman, 2009b; Menken & Kleyn, 2010; Olsen, 2010). Teachers often do not realize that second language issues continue to be a factor in these students' ability to achieve academically because LTELLs generally have good conversational fluency in English.

Generation 1.5 students. This group is broader than the long-term English language learner group in that it includes adults who are in college. Harklau (2003) and Roberge (2002) describe generation 1.5 students as those students who were either born in the United States or who immigrated to the U.S. at school age speaking a language other than English at home. These students are familiar with the cultural practices of the United States, but they also are exposed to the cultural practices of another country in their homes. Roberge (2002) includes students who migrate back and forth between their home country and the United States in this group. Generation 1.5 students tend to struggle with academic language skills. Many of these

students display some characteristics of students who are first generation immigrants and some characteristics of second generation immigrants (Rumbaut & Ima, 1988).

Newly arrived with adequate formal schooling. Students who come to the United States with adequate formal schooling in their first language are usually fairly academically successful (Freeman & Freeman, 2009; Padillo & Gonzalez, 2001; Olsen and Jaramillo, 1999; Menken, 2010). They need to learn to read, write, listen, and speak in English, but they are able to transfer previously learned academic knowledge from their first language to their second language. They are able to use the knowledge that they learned in their first language to help them understand what they are learning in their new language. Although these students generally do well in schools when they are provided with rigorous academic instruction, they may score low on standardized tests since it takes five to seven years for ELLs to score at levels comparable to native speakers on such tests (Freeman & Freeman, 2009b; Olsen & Jaramillo, 1999; Padillo & Gonzalez, 2001).

Newly arrived with limited formal or interrupted schooling. Students who immigrate to the United States with limited or interrupted formal schooling are at a significant disadvantage, when compared with their peers who have had adequate formal schooling. Often students who come from rural areas have not had the opportunity to attend school regularly. Political strife or harsh life circumstances may also cause some newly-arrived students to have limited or interrupted formal schooling. Students, who have not had the opportunity to attend school, must learn the customs, rules, and social conventions of school in addition to learning a new language and the academic skills needed for success in the school environment (Freeman & Freeman, 2009; Olsen and Jaramillo, 1999). Students who have interrupted formal schooling are usually

several years behind their same age peers in their level of academic knowledge (Freeman & Freeman, 2009b; Menken & Kleyn, 2010; Olsen & Jaramillo, 1999).

Standard English learners. Students who speak non-standard forms of English, such as different dialects, pidgins, and creoles, often struggle to learn oral and written academic language (Garcia, 2009). These students are Standard English learners. Many Hispanic students in Texas, whose first language is English, are Standard English learners, because they speak Tex-Mex, which is a blend of English and Spanish (Freeman & Freeman, 2009), or because they have developed conversational fluency in English without developing academic language proficiency in English (Cummins, 1981, 2008). Many of students who are from linguistically and culturally diverse backgrounds, who are exposed to a language other than English and cultural practices that differ from the mainstream culture of the United States on a daily basis, are also Standard English learners (Gottlieb, 2006).

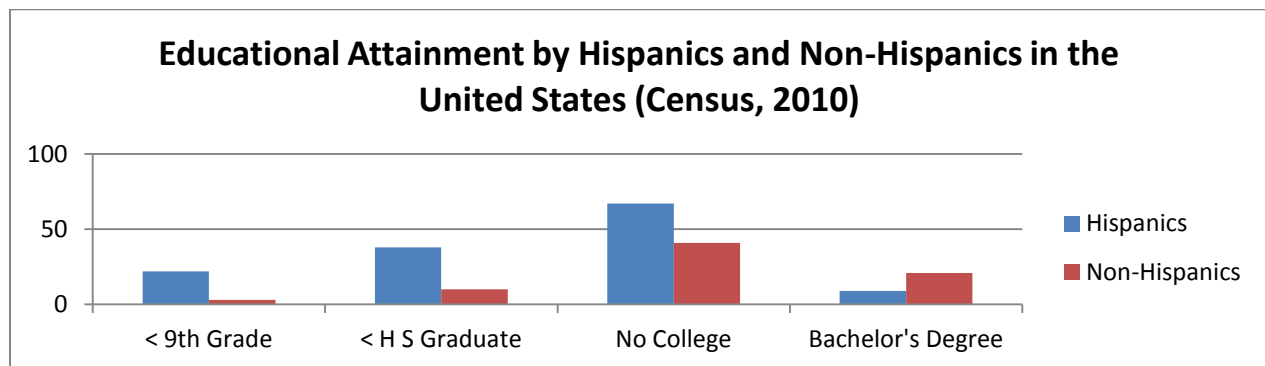
Most of the college students who participated in this study received all of their education in the United States. The majority of the participants come from culturally and linguistically diverse backgrounds. Many of these students started school speaking Spanish, but were quickly transitioned to all English instruction. These students are generation 1.5 students, many of whom continue to display the characteristics of long-term English language learners. A few of the participants in this study moved to the United States while they were in middle school after having adequate formal schooling in their home country.

The Effects of Low Levels of Educational Attainment among Hispanic Adults

The level of educational attainment by the adults in a student's home is another critical factor that has a significant impact on the educational attainment of many Hispanic students. The adult Hispanic population has significantly lower educational levels overall than the adults

from other ethnicities in the United States (Census, 2010). A comparison of the educational attainment of adults over the age of twenty-five in the United States in 2010 is shown below in Figure 4. Twenty-two percent of Hispanic adults in the United States have less than a ninth grade education. This compares with three percent of the adult population from all other ethnicities. Thirty-eight percent of the adult Hispanic population in the United States has earned less than a high school diploma, while only ten percent of the non-Hispanic adult population has earned less than a high school diploma. Sixty-seven percent of Hispanic adults have never attended college, and only eleven percent has earned a college degree. This compares with thirty-two percent of non-Hispanics who have earned a bachelor's degree or higher (Census, 2008).

Figure 4: Educational Attainment by Hispanics and Non-Hispanics in the United States



Educational attainment in the United States, Texas, and the lower Rio Grande

Valley. While the educational attainment of Hispanics is low throughout the United States, the issue of low educational attainment is even more significant in Texas. Texas has the lowest high school graduation rate in the country (Stoops, 2004). Only 79.3% of adults in Texas have earned a high school diploma, compared with 84.5% of adults nationwide in this same age group

(Census, 2010a). Texas also ranks 44th in the nation for the number of four year college degrees awarded (NCHEMS, 2009).

This disparity is particularly evident in the lower Rio Grande Valley, the site of this study, where over eighty-six percent of the population is Hispanic. As shown in Table 2, in the lower Rio Grande Valley, 24.6% of adults over the age of twenty-five have less than a ninth grade education. Thirty-eight percent of the adult population does not have a high school diploma, and only seventeen percent of the adults over age twenty-five in the Rio Grande Valley have attended any college. The level of parents' education is a strong predictor of student achievement. The limited availability of adult role models who have a college education effects Hispanic students' expectations about pursuing a college degree. In addition, parents tend to have lower expectations regarding their children's level of educational attainment than parents who have higher levels of education (Gándara & Contreras, 2009). It is critical for secondary schools, colleges, and universities along the Texas/Mexico border to find more effective methods for meeting the educational needs of college students, the majority of whom are Hispanic, so that this region has access to the skilled labor that is needed in today's workforce.

Table 2

Comparison of Educational Attainment in the United States, Texas, and the Rio Grande Valley

Level of Education	United States	Texas	Rio Grande Valley
Less Than 9 th Grade	6.4%	10.3%	24.6%
Did Not Graduate From High School	15.5%	20.7%	37.6%
Some College	20.3%	21.5%	17.2%
Bachelor's Degree	17.4%	17.0%	9.9%

The Causes and Effects of Academic Disengagement

Due to the risk factors described above, linguistically, culturally, and socio-economically diverse students frequently lag behind their peers beginning when they first enroll in school because they are in the process of learning English and mainstream cultural norms at the same time that they are learning the academic content of school (Freeman & Freeman, 2001; Freeman & Freeman, 2009b; Ogbu, 1991; Suárez-Orozco, et al., 2008a).. At risk Hispanic students, in particular, fail to develop an identity as good students who aspire to middle class values such as the importance of a college education. They are often faced with stereotyped beliefs about their ability. Hispanics are often perceived by others to be academically weak students who may not be as bright as other students (Gándara & Contreras, 2009). This may be due to misunderstandings about their language development., the effects of poverty, and/or issues related to low levels of parental education (Gándara & Contreras, 2009; Suárez-Orozco, et al., 2008a).

Failure experiences and self efficacy. Failure experiences in school, while a student is in the process of becoming proficient in English, affects many Hispanic students' feeling of self efficacy. A student's school related self efficacy is their belief that they have some control over their own learning and that they are capable of achieving at a high level (Suárez-Orozco, et al., 2008a). Issues related to self efficacy, and students' views about themselves within the context of the education system affect how successful students are in school and whether they aspire to pursue a college degree (Haro, Rodriguez, & Gonzales, 1994; Steinberg, 1996; Delgado-Gaitan, 1990; Useem, 1992; Suarez-Orozo, 1995; Forsbach and Pierce, 1999; Delgado et al, 2006; Hayes-Bautista, 2004; Phinney, 1989; Steele, 1997; Gándara & Cantreras, 2009).

Perreira, Fuligni, and Potochnik (2010) studied the role of discrimination and social acceptance on feelings of academic motivation and self efficacy among Latino youth in South Carolina. They found that Hispanic recent immigrants maintained higher levels of academic motivation and self efficacy than minority students who were born in the United States, in spite of having more experiences with discrimination than their peers who had lived in the United States for a long time. Immigrant youth reported that they enjoyed going to school and working on school work significantly more often than U.S. born Hispanic youth.

Voluntary and Involuntary immigrants. Immigrant youth also reported a stronger sense of family obligation and ethnic identity (Perreira, Fuligni, & Potochnik, 2010). These findings support Ogbu's (1991, 1992) conceptual framework of voluntary and involuntary minorities. Ogbu (1991, 1992) explains the differences in the academic motivation and feeling of self efficacy among recent immigrants and minority students who were born in the United States. He describes recent immigrants as voluntary immigrants who moved to the United States to seek a better future, more economic opportunities, and/or more political freedom. He describes minority students who were born in the United States as involuntary minorities who tend to self identify more as Americans than immigrants.

Involuntary immigrants tend to judge their personal success in terms of majority values, but they are often distrustful of authority figures from the mainstream majority. Involuntary minorities often have experienced institutionalized discrimination at school and are distrustful of school personnel. There is frequently a significant amount of social and psychological peer pressure from involuntary minorities' peer group that discourages attitudes and behaviors that promote academic success (Ogbu, 1991; Ogbu, 1992).

Although voluntary minorities often fare better academically than involuntary minorities, many recent immigrants become academically disengaged after a few years in U. S. schools as well. Suárez-Orozco, Suárez-Orozco, and Todorova's (2008) longitudinal study of immigrant students' adaptation analyzed the academic progress of recent immigrant students from five regions of the world: Central America, the Dominican Republic, China, Haiti, and Mexico attending schools in Boston and San Francisco. They started their study with 407 recent immigrants, and after five years 309 students completed the study. Most of the students who participated in this study attended very segregated schools where most of the students were poor, from minority backgrounds, and spoke a language other than English (Suárez-Orozco, et al., 2008a). This triple segregation in school is common for many minority students in the United States, where 90% of minority students are clustered in 10% of U. S. schools (Gándara & Contreras, 2009).

The researchers found that strong social networks from families, mentors, friends, and after-school community based organizations helped recent immigrants to adjust to their new environment and fostered better academic success (Suárez-Orozco, et al., 2008a). In one of the schools that had a large population of Mexican immigrant students, they found that the social distance between white middle-class Americans and the Mexican students in the school was pervasive and dramatic. Suárez-Orozco et al. (2008) found that although many families immigrate to the United States seeking a better education, most newly arrived immigrant students enter schools that have environments that are hostile, dangerous, and low achieving. The students who enrolled in schools that provided a stimulating academic environment and nurturing relationships were much more likely to remain motivated to succeed academically (Suárez-Orozco, et al., 2008a).

The Effects of Limited Cultural and Social Capital

Another risk factor that affects Hispanic ELLs' academic success is their limited cultural and social capital. Many Hispanic high school students lack the social and cultural capital that influences the decision to attend college. Social capital is a network of peers and adults who help the student to make informed decisions about their education, and educational cultural capital is knowledge about how the educational system works, and the cultural norms of colleges and universities. Having friends who aspire to attend college is an important factor that affects whether a student will have a desire to go on to college. Having friends who know what it takes to get into college helps students to gain knowledge about the process of applying to college. It helps students to understand what is needed to get into college, and succeed in that setting.

Gándara, O'Hara, and Gutiérrez (2004) interviewed almost five hundred high school students and asked them about what they planned to do after high school. In 9th grade, only 50% of the Hispanic students interviewed reported that they planned to attend college, as compared to 61% of students from other ethnic groups. In tenth grade, 58% of the Hispanic students interviewed reported that they planned to attend college, compared with 81% of students from other ethnic backgrounds. By 12th grade, 80% of Hispanic students and 85% on non-Hispanic students reported that they planned to attend college (Gándara, O'Hara, & Gutiérrez, 2004). Gándara et al. (2004) concluded that Hispanic students often do not get information about the importance of attending college, college entrance requirements, or application processes until late in their high school career. Because of the low levels of Hispanic students who actually attend college, they argue that Hispanic students may be getting this information too late. They lack the cultural capital that includes the knowledge of how to pursue a college education.

Many minority and low-income parents lack this kind of educational capital as well. Approximately sixty-seven percent of Hispanic adults have never attended college (Census, 2010). Therefore, a majority of Hispanic students have parents who have never attended college. They have limited knowledge of how the education system works or the academic requirements for getting in to college (Lareau, 1989). Students from families whose parents are college educated are much more likely to take college preparation classes in high school than students whose parents did not attend college because these families have the cultural knowledge of what is needed for a college education (Mickelson, 2001).

Research indicates that the parents of Hispanic students generally have high educational aspirations for their children, but they often lack cultural capital or knowledge of how the educational system works that is needed to make informed decisions about the coursework that their children should take while they are in high school (Delgado-Gaitan, 1990; Gándara & Contreras, 2009; Haro, et al., 1994; Steinberg, 1996; Suárez-Orozco, et al., 2008a). They also lack the social capital or social network needed to support these aspirations and navigate through the college entrance process.

Parents of Hispanic students often accept the educational programming recommendations of school personnel without understanding the long-term ramifications of these decisions, such as which courses their children should take in high school to prepare for college entrance (Gándara & Contreras, 2009; Lareau, 1989). Parents who have low levels of education often are unaware when their children are tracked into lower level academic classes like basic math instead of algebra. Students tracked into these classes are poorly prepared for college level work (Gándara & Contreras, 2009; Useem, 1992). It is critical for schools that serve large populations of students who are poor, minorities, and/or live in households where languages other than

English are spoken to provide rigorous academic programs, share information about the importance of attending college, information about how to navigate the college admission process, and support systems that help these students build the social and cultural capital needed for academic success (Gándara & Contreras, 2009; Suárez-Orozco, et al., 2008a).

Hispanic College Students

College enrollment data reveal that Hispanic students value university education. Yet, the numbers of students who reach graduation are reduced by part-time enrollment, a concentration in two-year institutions, and a predilection to prolong undergraduate education beyond the traditional age... These means of college attendance are the results of tradeoffs between the desire to gain an education and powerful forces of family, community and affordability. Many young Latinos are making a generational leap when they go beyond high school. As the first in their families to pursue higher education, they lack the invaluable support systems at home that most American college students take for granted. Finally, many Latinos are products of under-funded, under-staffed and under-performing high schools, and as such have not had an adequate preparation for college work (Fry, 2002, p.12).

As Fry points out, in addition to the risk factors described above, there are several reasons for the low completion rate of Hispanic college students. Hispanic students are more likely than students from other ethnic backgrounds to attend college part-time. Nationally, only seventy-five percent of Hispanic students who are enrolled in college between the ages of 18 and 24, attend full-time, as compared with eighty-five percent of white college students between the ages of 18 and 24 (Fry, 2002). Students who attend college part time are less likely to complete a four-year degree than those who attend full time.

Further, Hispanic college students are more likely to start their post-secondary education at a community college or open enrollment university than students from other ethnic groups. Approximately forty percent of 18 to 24 year old Hispanic college students are enrolled in two-year colleges. Hispanic students are much more likely to start at a community college than

students from other ethnic backgrounds. This holds true even for Hispanics who meet the entrance criteria to attend a more selective university (Fry, 2004). Since studies indicate that students from all ethnic backgrounds are more likely to complete a four year degree if they start at a selective four year university than if they start at a community college or an open enrollment four year university, the high rate of community college attendance helps account for their lower educational attainment (Bowen & Bok, 1998; Carnevale, 2003; Golden, 2006).

Many students, who start their post-secondary education at a community college, make this decision because they do not score particularly well on standardized tests and need extra support in order to succeed in the college setting. Many Hispanic college students are required to take developmental classes in reading, writing, and/or math while they are taking college level classes due to low scores on college entrance examinations (Wiley, Lee, & Rumberger, 2009). Often, students struggle in these developmental courses and do not continue their college careers.

Hispanic college students are significantly more likely than students from other ethnic backgrounds to be the first generation in their family to attend college. Phinney and Hass (2003) found that there is an over-representation of minority students, low-income students, and women among first generation college students. Many first generation students are expected to continue to live with their parents and complete family related duties (Phinney & Hass, 2003). Minority first generation students are less likely than other students to receive parental support for making the choice to attend college. These students are often faced with the decision of choosing between pursuing a college degree and the families' expectation that they will seek employment and contribute financially to the family (York-Anderson & Bowman, 1991).

Hispanic college students are more likely than their non-Hispanic peers to work while they are in school and/or to be raising children. Fry (2002) found that less than half of Hispanic

undergraduates attend college full time. Hispanic college students are nearly twice as likely as their white peers to have children. A national survey found that 77% of Hispanics reported that a major reason why they failed to enroll in college or complete a college degree was the need to work and earn money ("National Survey of Latinos: Education," 2004).

Finally, many Hispanic college students are lacking in the kinds of rigorous academic preparation needed for success in college because they did not take college preparatory classes while they were in high school. Low income and minority students are often tracked into a non-college bound classes while they are in high school (Geiser & Santelices, 2006; Lucas, 1999). These students are also more likely to attend schools in poor neighborhoods. These schools tend to provide less rigorous classes in general and less college preparation classes (Betts, Rueben, & Danenberg, 2000; Gándara & Contreras, 2009).

Many of the Hispanic students attending the university where this study was conducted are having to over-come the at-risk characteristics described above which often contribute to a large percentage of failure to complete their college education (Gándara & Contreras, 2009; Wiley, et al., 2009). Fifty-two percent of the students at this university attend part-time, and ninety-three percent of the student population is Hispanic (UTBTSC, 2011). Ninety percent of the students attending classes at this institution receive financial aid, and ninety-one percent of these students are the first generation in their families to attend college. Many have children and need to work while going to school (Fry, 2002; UTBTSC, 2011).

Hispanic students are lagging behind their peers from other ethnic backgrounds due to a variety of reasons. Growing up living in poverty, starting school speaking a language other than English, having parents who have limited levels of education, academic disengagement, and limited social and cultural capital are effecting the educational attainment of the Hispanics. All

of these factors also influence the success rate of Hispanic college students (Fry, 2002; Gándara & Contreras, 2009). It is critical that universities examine how they are meeting the needs of these college students. Unfortunately, research shows that colleges and universities are not meeting the instructional needs of many Hispanic students (Fry, 2002; Lemmers & Murphy, 2002).

Instructional Methods Most Commonly Used in College Classrooms

The instructional methods that typically occur in most college classrooms are not meeting the needs of many Hispanic college students because the techniques that are being used are not designed to support students' development of the academic language skills needed for college success (Cazden, 2001). Lemmers and Murphy (2002) analyzed the types of teaching techniques generally used in college classrooms, and found that lecture is the primary teaching methodology used in most post-secondary classes. Lecture is used approximately 80% of the time in most college classes (Lemmers & Murphy, 2002).

Class discussions also tend to follow a set pattern. The typical discourse pattern that occurs in many classrooms is referred to as the initiation, response, evaluation sequence (IRE). This IRE pattern involves the teacher asking a question, the student responding with a short answer, and the teacher providing an evaluative response (Cazden, 2001; Freeman & Freeman, 2009). This discourse pattern tends to limit discussion. It is also a rather contrived dialogue that is similar to an oral quiz rather than a real conversation (Cazden, 2001; Freeman & Freeman, 2009b). The typical discourse patterns in most college classes do not provide opportunities for college students who have limited oral and written academic language skills with opportunities to acquire the academic language skills that they need to become successful in the college

setting. Students are provided with few opportunities to use academic language skills in meaningful ways (Wiley, et al., 2009).

Effective Instruction for Hispanic College Students

Hispanic college students are more likely to succeed in the college setting when they feel that their instructors are responsive to their needs (Flint, Zakos, & Frey, 2002). In addition to addressing the academic language needs of this student population, it is important to create a situation that supports the emotional and affective needs of adult Hispanic students by creating an environment that focuses on effective communication and mutual respect (Wlodkowski, 2008). Adult students bring a wealth of background knowledge to the learning situation. When instructors capitalize on this background knowledge, college students are able to share their cultural perspectives and enrich the learning experience for all students (Wlodkowski, 2008).

Culturally responsive teaching techniques, active learning, and subject matter that the students perceive to be meaningful to their own lives increases student persistence, which in turn, improves student outcomes (Flint, et al., 2002; Kuh, Kinzie, Schuh, & Whitt, 2005). Student motivation is increased when they are actively involved in the learning process (Wlodkowski, 2008). College students are also motivated when they believe that they are perceived to be academically capable. Positive feedback combined with constructive criticism and assignments that push students to push themselves beyond their perceived limitations are particularly important. This type of validation is especially important for minority, low-income, and first generation college students because it helps them to perceive themselves as capable of being successful in the college setting (Wlodkowski, 2008).

Providing a safe, supportive learning environment helps students to try new things. Ice breakers and team building exercises at the beginning of the semester help students to get to know each other, and get comfortable with the expectation that everyone will participate fully in discussions and activities (Johnson, Johnson, & Smith, 2007). Participating in group discussions about different academic subjects helps students to learn the academic language associated with the subject matter that they are learning.

Academic Language Proficiency

In order to succeed academically at the college level, students need advanced oral and written academic language skills that they may not have learned in secondary school (Fillmore & Snow, 2005; Scarella, 2003; Schleppegrell, 2004). If they have not previously developed these skills, Hispanic college students need opportunities to develop them in their college classes in order to compete successfully in a college setting (Wiley, Lee, & Rumberger, 2009). Incorporating the development of academic language skills within content-based classes has been shown to be an effective method for helping students to improve their understanding of the oral and written language that is used in their various fields of study (Davidson & Williams, 2001; Schleppegrell & Oliveira, 2006). Gibbons (2002) describes language as a continuum that ranges from casual conversation to a published academic journal article, with one end of the continuum being more “spoken-like”, and the other end being more “written-like”. An academic lecture or presentation is fairly formal and contains many of the elements of language that are used in written texts. On the other hand, a text message to a friend is fairly casual in register, although the mode is written. Helping students to understand the formality of academic

language and how it differs from social language is an important factor in learning the subtleties of academic language.

The academic registers used in college include both oral and written communication. Casual conversation is more personal, immediate, and interactive than academic language, which is more formal and edited than conversational language (Biber, 1986; Freeman & Freeman, 2009b). Helping college students to understand the expectations for the use of the different registers needed in college and their field of study is an important aspect of teaching students to understand the type of academic language that they will encounter in their various classes. Each subject area that students study has slightly different language expectations.

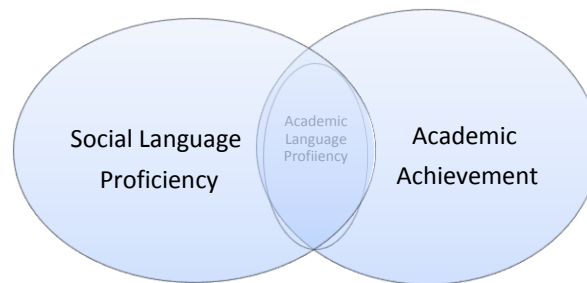
The vocabulary used in academic language is also different from that of conversational language. The vocabulary used in academic contexts is primarily Greek or Latin in origin. The words that are used most often in conversation are primarily Anglo-Saxon in origin (Corson, 1997). One aspect of academic language that students must learn in their classes is the academic vocabulary of the different content areas they are studying. They must also learn how to use more formal academic registers as they read, write, and interact with others in their academic coursework.

The Connection between Academic Language Proficiency and Academic Achievement

Academic language involves understanding and using the specialized language patterns and the vocabulary that is associated with specific subject areas (Gottlieb, 2004). Academic language uses complex sentence structures to explain academic content. It is more formal than social language. Both social and academic language are used in the classroom setting. Social language is used to ask for help, share feelings, express regret or apologize, greet others, and give or ask for permission (Gottlieb, 2006). Academic language is used to summarize

information, compare and contrast events, people, and ideas, defend positions, sequence operations, procedures, and processes, and debate issues or ideas (Gottlieb, 2006). The complex academic problem solving needed for successful academic achievement in college requires students to understand and effectively use academic language. The connection between academic language and academic achievement is shown below, in Figure 5.

Figure 5: The Connection between Language and Academic Achievement (Gottlieb, 2006, p. 26)



Supporting College Students with the Acquisition of Academic Language Skills

College students whose academic language proficiency is not developed at the college level can benefit greatly from explicit instruction and feedback combined with scaffolded opportunities to learn specific strategies for improving their academic language proficiency (Garcia, 2002, Freeman & Freeman, 2009; Olsen, 2010). Guided instruction in academic writing, combined with opportunities to read and discuss complex academic texts in the students' field of study, helps them to become fluent in the language of that field of study (Olsen, 2010). Specialized reading and writing skills are needed for specific academic disciplines (Shanahan & Shanahan, 2008).

Structuring activities that encourage students to think, act, talk, listen, read, and write like college students and professionals in their fields of study helps to create an academic discourse

that is unique to each class (Gee, 2008; Freeman & Freeman, 2009). College professors can help their students who struggle with academic language to develop the academic language needed for college success by providing carefully scaffolded instruction that supports the development of oral and written academic language skills (Freeman & Freeman, 2009).

Lessons need to be challenging but not so difficult that the student is unable to understand what is being taught (Vygotsky, 1987). Some students from socio-economically and linguistically diverse backgrounds may not have the background knowledge needed to understand what is being said, or they may lack the socio-cultural context needed for understanding concepts that are being introduced. Their understanding may be influenced by the language other than English that they are exposed to on a regular basis, or they may not be accustomed to the academic language that is being used (Buck, 2001).

Bridging from Conversational to Academic Language. Teachers can structure classes to promote the development of academic language. When students are given opportunities to work together in small groups to solve problems in their field of study, this serves as a bridge between conversational language and academic language (Gibbons, 2002; Wells & Chang-Wells, 1992). Having students discuss open-ended questions about real issues in the field that they are studying and reporting on the key points of their small group discussion to the whole class provides several critical components needed for the development of academic language skills (Freeman & Freeman, 2009; Gibbons 2002; Johnson, Johnson, and Smith, 2007; Kagan, 1995). This process engages students in collaborative discussions that help them to explore issues from different perspectives. The instructor can use these small group discussions as a scaffold to help students start using more academic language (Freeman & Freeman, 2009b; Gibbons, 2002; Johnson, et al., 2007).

Supporting the development of reading skills. Research indicates that vocabulary development and reading comprehension are two keys to successful academic achievement (Bauman, Kameenui, & Ash, 2002; National Institute of Child Health and Human Development, 2000). Reading is a process during which students use their prior knowledge to make meaning. In order to be academically successful, students must learn to read in a variety of genres and for multiple purposes (Gottlieb, 2006).

Providing students with opportunities to read from a variety of texts on the subject rather than relying completely on the assigned textbook expands students' knowledge of issues in the field. It increases their understanding of language elements that are unique to what they are studying, and provides models of the types of writing that is included in the written language that is used in that field (Freeman & Freeman, 2009; Daniels & Zemelman, 2004).

Using a variety of texts helps students to understand the issues that they are studying from different perspectives, and increases their background knowledge on the subject matter being studied (Freeman & Freeman, 2009; Daniels & Zemelman, 2004). College professors can help their students learn strategies for analyzing and understanding complex texts by modeling the methods that they themselves use to understand texts. By providing explicit instruction on strategies that they use to understand new vocabulary, use higher order thinking skills such as inferring from the text and synthesizing information, and connecting new learning to what the students already know, college professors can help their students to understand and apply what they are reading (Fisher & Frey, 2008a, 2008b; Fisher, Frey, & Lapp, 2008; Freeman & Freeman, 2009b; Jiménez, Handsfield, & Fisher, 2008).

Supporting the development of writing skills Many students also need support with academic writing. Providing opportunities to practice increasingly difficult writing tasks, and giving students individualized feedback about their writing can help students to master the complexities of academic writing (Freeman & Freeman, 2009b; V. J. Shute, 2008). At the college level, students need instruction on how to do research, finding appropriate sources for their research, and supported opportunities to learn and practice research skills (Singhal, 2004). Proficient writers are able to describe, narrate, state their opinion, and defend their position in a written format. They are able to write research papers, critiques, summaries and reports (Gottlieb, 2006).

Academic writing generally focuses on a topic, issue, or research within a field of academic study. It usually follows a specific structural style. Learning to write cohesive papers that follow a prescribed format and style that are based on the conventions of each particular field of study can be difficult for many beginning college students (Freeman & Freeman, 2009a).

Research on Hispanic College Students' Academic Writing Skills

Although many Hispanic college students may start college with weaknesses in their academic writing skills; with appropriate instructional support these students can succeed in the college setting. Plala (1995) analyzed the writing of 144 Hispanic and 5366 Anglo junior and senior undergraduates at a Texas university between the spring of 1987 and the summer of 1993. Students' writing skills were assessed holistically on the Junior Level Essay Examination that all students at that university were required to take. A six level rating system was used, with a score of six indicating a very well written and developed essay with no mechanical or grammar errors, and a level one score indicated a very poorly written and developed essay with many mechanical or grammar errors

Plala compared students by gender and ethnicity. Anglo students scored significantly better than Hispanic students, and female students scored significantly higher than male students. In spite of this, 67.6% of Hispanic males passed the assessment and 91.3% of Hispanic females passed the assessment (Plala, 1995). Plala (1995) concluded that these results show that Hispanic students have the ability to succeed in the college setting. She recommended future studies that analyze the patterns of errors to determine the type of supports that are needed by the Hispanic college student population.

College professors can support successful educational attainment among Hispanic students by helping them to develop the college level academic language needed for academic success. Opportunities to read and discuss a journal articles and books from their field of study in addition to the assigned textbook helps students to acquire the academic language associated with that academic area (Daniels & Zemelman, 2004; Freeman & Freeman, 2009b). Scaffolded writing opportunities combined with individualized feedback helps them to develop college level writing skills in different academic areas (Freeman & Freeman, 2009b; V. Shute, 2008; Singhal, 2004). This dissertation responds to the latter part of Plala's recommendation by studying the effects of using three supports to improve Hispanic students' academic writing: cooperative learning, scaffolded instruction, and formative feedback.

Research on Techniques for Improving Student' Academic Writing

The research that has been done on instructional techniques for assessing and improving academic writing includes quantitative, qualitative, and mixed methods studies. Experimental, quasi-experimental, and non-experimental quantitative studies, as well as qualitative and mixed methods studies that have been done to evaluate the effectiveness of a variety of instructional

techniques and assessment methods will be reviewed in the following sections. This review of the research will begin with a meta-analysis of the quantitative and mixed methods experimental and quasi-experimental studies that were found to have a significant positive effect on student writing. Then, quantitative, qualitative, and mixed methods studies that have analyzed the instructional techniques that were used in the current study will be reviewed.

A meta-analysis, done by Graham and Perin (2007), on effective strategies for improving the writing skills of adolescents in middle and high school identified eleven elements of instruction that have resulted in significant student gains: teaching writing strategies; summarization; collaborative writing; setting specific, attainable goals; the use of models; sentence combining; word processing; pre-writing; writing within specific content areas, the use of a process writing approach; and inquiry activities (Graham & Perin, 2007). The effect size was determined for each of these teaching elements. Four strategies were found to have a strong positive effect size. Teaching writing strategies and summarization had an overall effect size of 0.82, collaborative writing had an effect size of 0.75, and setting specific, attainable goals for writing had an effect size of 0.70. Two strategies were found to have a moderate positive effect size: the use of word processing with an effect size of 0.55, and practice with sentence combining with an effect size of 0.50. The remaining five strategies all had a mild positive effect size.

Several of the strategies that were identified by Graham and Perin (2007) were used in this study. These strategies include teaching writing strategies, setting specific, attainable goals, and collaborative writing. The provision of formative feedback was another strategy used in the current study. Although feedback was not identified as an effective stand-alone strategy in Graham and Perin's (2007) meta-analysis, it was found to be a powerful tool when used in

conjunction with teaching writing strategies and setting specific, attainable goals. In the following sections, I describe and review the research related to three practices that I implemented to meet the needs of the Hispanic students in the classes that were part of this study. These strategies were used in an attempt to determine their effects on students' academic language development. The strategies that were used are cooperative learning, scaffolded instruction, and formative feedback.

Cooperative Learning

Cooperative learning is based the work of Koffka in the early 1900s, which was later refined by Lewin (1935, 1948), Gardner (1985), and Johnson and Johnson (1987). It is based on the interdependence of members of a group. This interdependence can be positive or negative. Positive interdependence occurs when all members of a group believe that they can be successful only if they work together with others to achieve a mutual goal. This encourages group members to support each other in achieving their mutual goals (Johnson, Johnson, & Smith, 2007). A key factor in the success of cooperative learning involves trusting that one's teammates will take care of their portion of the responsibilities. This requires individuals to open themselves up to the vulnerability of having to rely on others (Duetsch, 1958, 1960; Johnson et al, 2007).

Kagan (1995) argues that cooperative learning is an effective instructional methodology for supporting language acquisition in emergent bilingual students because it offers a natural venue for comprehensible input. When students work together in small groups to solve problems, they explain their ideas until the others in the group understand. The process of discussing things in small groups and then reporting on that discussion to the whole group provides a natural method for hearing information multiple times in language that is developmentally appropriate.

Cooperative learning helps students to increase their language output by providing multiple opportunities to discuss new ideas and concepts in a non-threatening environment. Students are more motivated to speak because they need to talk in order to complete their group projects. In classes that use cooperative learning, students are taught the skills needed to encourage each other, and students develop a positive interdependence with each other because they all need to learn and know the same information.

One way that teachers can increase student understanding is to provide information in a variety of ways. Giving students opportunities to work together in small groups increases the amount of comprehensible input that each student receives because they are required to explain things to each other as they solve problems (Kagan, 1995). When teachers provide information in multiple ways, and give students choices about how to demonstrate their knowledge, teachers can foster the success of all students (Caine & Caine, 1994).

Components of cooperative learning. There are five major components of cooperative learning (Johnson and Johnson, 1987). The first component is positive interdependence, which requires students to have mutual goals. Students work together, sharing materials and information, for joint rewards. Group members each have an assigned role, and students must feel that they are dependent upon each other for the project to succeed. The second component of cooperative learning is face-to-face interaction. Verbal interactions are structured to expand learning as students summarize information orally, and elaborate on the ideas of their teammates. Each team member is accountable for all of the members of the team learning the required information. This is assessed through randomly calling on different team members to answer for the whole group, or through individual assessments. Students are taught the social skills needed for effective collaboration through the small group problem solving process. Finally, groups are

given time to process how effectively they worked together. They may also receive feedback from the teacher or other observers of the group process (Johnson and Johnson, 1987; Johnson, Johnson, and Smith, 2007).

Research on cooperative learning. Cooperative learning has been used in post-secondary educational settings since the mid-1960s (Johnson, Johnson, and Smith, 2007). Johnson, Johnson, and Smith (2007) did a meta-analysis of the research that has been done on cooperative learning. Over 300 studies have been conducted in post-secondary settings comparing the effectiveness of cooperative learning with other teaching methodologies that focus on competitive and individualistic learning.

The effectiveness of cooperative learning compared with competitive instructional techniques was found to improve individual achievement in 168 studies with an average effect size of 0.49, and a comparison between cooperative learning and individual learning was found to have a positive average effect size of 0.53 on individual student achievement. A meta-analysis that compared student enjoyment of cooperative, competitive, and individualized learning in ninety-five research studies found that students enjoyed cooperative learning more than competitive and individualized learning with effect sizes of 0.68 and 0.55 respectively. Twenty-four studies in this meta-analysis focused on students' perceptions of social support from the instructor and their peers. The effect size of cooperative learning compared with competitive learning was 0.60, and the effect size of cooperative learning compared with individualized learning was 0.51. The impact of cooperative learning compared with competitive and individualized learning on students self esteem had a positive effect size of 0.47 when compared with competitive learning, and an effect size of 0.29 when compared with individualized learning (Johnson, et al., 2007).

The results of these studies indicate that students who participate in cooperative learning tend to be more motivated, put forth additional effort, have better retention of information, and use more critical thinking and creative problem solving skills than students who are involved in more competitive and individualistic learning modalities (Johnson & Johnson, 1987; Johnson, et al., 2007). Better integration into college life, improved class attendance, and better course completion rates were reported in classes that used cooperative learning (Tinto, 1997; Johnson et al., 2007). Johnson and Johnson (1989, 2007) argue that students have more positive attitudes toward college and learning in general when cooperative learning techniques are used. This has implications for the subjects of this study.

Tinto's (1997) mixed methods study examined the effectiveness of linking courses across a common theme and using a collaborative problem solving approach to instruction. In this study at Seattle Central Community College, 210 students participating in a Coordinated Studies Program (CSP) that utilized a cooperative learning instructional model and 307 students involved in a traditional curricular model participated in this study. The students who participated in the Coordinated Studies Program had higher GPAs and higher enrollment rates in later semesters than the students in the control group. They reported more positive views of college and their own sense of involvement in their learning. The students in the CSP also reported that they established better peer relationships, and they felt more comfortable expressing their personal experiences and world views than students in the control group (Tinto, 1997).

A study by Morgan, Rosenberg, and Wells (2010) specifically examined how Hispanic undergraduates at an open enrollment university in south Texas that had a 94% Hispanic population responded to cooperative learning. In this study, students responded to a pre and post test survey. Student responses to the post-test survey indicated that a majority of the students

surveyed believed that cooperative learning was an effective instructional technique that increases student participation in learning activities, and it improved student communication and decision making skills.

Students reported that they enjoyed working as a cooperative group member. Several students wrote about feeling fearful about participating in small group learning at the beginning of the semester, but found that they felt more confident after participating in a cooperative learning group. Several students also responded that they felt more responsibility regarding being prepared when they came to class (Morgan, Rosenberg, & Wells, 2010).

Slavin, Stevens, and Madden (1988) reported on three studies that they did with third and fourth grade students using a cooperative learning model to improve reading and writing skills. In each of these studies the experimental group participated in a variety of cooperative learning tasks that included reading aloud with one or two partners, short group writing tasks, working with partners to practice decoding words, learn word meanings, retell stories, and check each others' work.

In the first study, 461 students in 21 third and fourth grade classes at a school district in suburban Maryland participated. The students in the experimental group gained between 30% and 36% of a grade equivalent (GE) more than the students in the control group in reading comprehension and reading vocabulary. They achieved 52% of a grade equivalent higher than the students in the control group in language expression and 72% of a grade equivalent more in spelling than the control group. The only area in which there were no significant gains was language mechanics (Slavin, Stevens, & Maden, 1988).

The second study was conducted over the course of a year, and included students from remedial and special education classes integrated with students in the mainstream setting. In this

study, 459 students in third and fourth grade from 22 classes participated. The students in the experimental cooperative learning group made close to two-thirds of a standard deviation more growth than the control group in the areas of word recognition, word analysis, fluency, and reduced error rates (Slavin, et al., 1988).

The third study involved students from thirty third and fourth grade classes in Pennsylvania that were assigned to three treatments. One group participated in cooperative learning combined with direct instruction. The second group received direct instruction only, and the third group was the control group. The students who participated in a combination of cooperative learning and direct instruction showed significantly more improvement than the control group in identifying the main idea of reading passages, and they scored moderately better than the control group on their responses to inferential questions. The cooperative learning group scored 58% higher than the direct instruction only group on identifying the main idea of passages and 20% of a standard deviation higher than the direct instruction group on responding correctly to inferential questions (Slavin, et al., 1988).

Developing Academic Language Skills with Cooperative Learning

Cooperative learning is an effective method for expanding students' academic language skills. Giving students opportunities to work together to solve problems, discuss research articles, and prepare group projects or presentations within their field of study helps them to become more fluent in the language and practices of that field. Talking informally with peers about the subject matter being studied helps students to understand the discourse of a specific area of study. When emergent bilinguals have the flexibility to discuss their ideas in the language of their choice, these small group interactions are more effective than when the student is required to use the language of instruction (Freeman and Freeman, 2009).

Improving written academic language with cooperative learning. Working in pairs to read and provide feedback to each other about outlines, papers, and essays helps students in several ways. Looking critically at someone else's writing helps students to think about the expectations of the assignment. It provides them with an opportunity to see how someone else approached the task. Students have the opportunity to learn about what the other student has read, and with practice, it helps student to learn how to provide both positive feedback and constructive feedback (Wlodkowski, 2008).

Collaborative writing. A strategy that is used in the current study that Graham and Perin (2007) found to have a strong positive effect size in their meta-analysis of effective writing strategies is the use of collaborative writing. Collaborative writing has been shown to improve students' meta-cognitive thought processes related to writing (Humphris, 2010). When the writing team works well together it has been shown to be a positive emotional experience that increases student understanding of the writing process (Dale, 1994; Ritchie & Rigano, 2007).

Ritchie and Rigano (2007) reflectively analyzed the process of writing an academic journal article together from a phenomenological perspective. Although these authors had written together before, they had always worked on separate sections of the document and edited for each other, adding and clarifying ideas and statements. In this reflective qualitative study, they worked together on the same written content through a dialogic process. Ritchie and Rigano began their process by generating questions that they wanted to answer. They found that it was most effective to each research those questions independently prior to meeting for a writing session.

At first one of the authors did all of the typing, but they found that they preferred to both be able to add written input. After a few sessions, they arranged a process that enabled them

both with the ability to add written input to the document. At first they found the process difficult because of the pressure to make decisions rapidly, but they described the overall process as an intensely positive, powerful, and emotional experience (Ritchie & Rigano, 2007).

Dale (1994) analyzed collaborative writing to determine the factors that contributed to a successful group writing experience. In this mixed methods study, she worked with eight collaborative writing triads in a ninth grade English class. She made audio-tapes of their discussions. She had all of the students respond to a Likert style questionnaire, and she interviewed 22 of the 24 participants.

After analyzing the quantity and quality of each group's dialogue, she categorized them as a model group, a typical group, or a problem group. She determined that the model groups talked to each other more often than other groups. They shared ideas, elaborated, and modified their thinking. The groups that were coded as typical spent their time discussing procedural issues and giving each other directives rather than focusing on ideas. The problem groups also focused on procedural issues, but they made frequent negative affective statements toward other members of the group as well (Dale, 1994). Dale (1994) found that collaborative writing had potential to increase engagement in the writing process and improve learning when the group developed a positive social environment. She argued that it is important to spend time helping students to develop collaborative skills so that they are able to negotiate effectively to build consensus and address power issues in the group.

Scaffolded Instruction

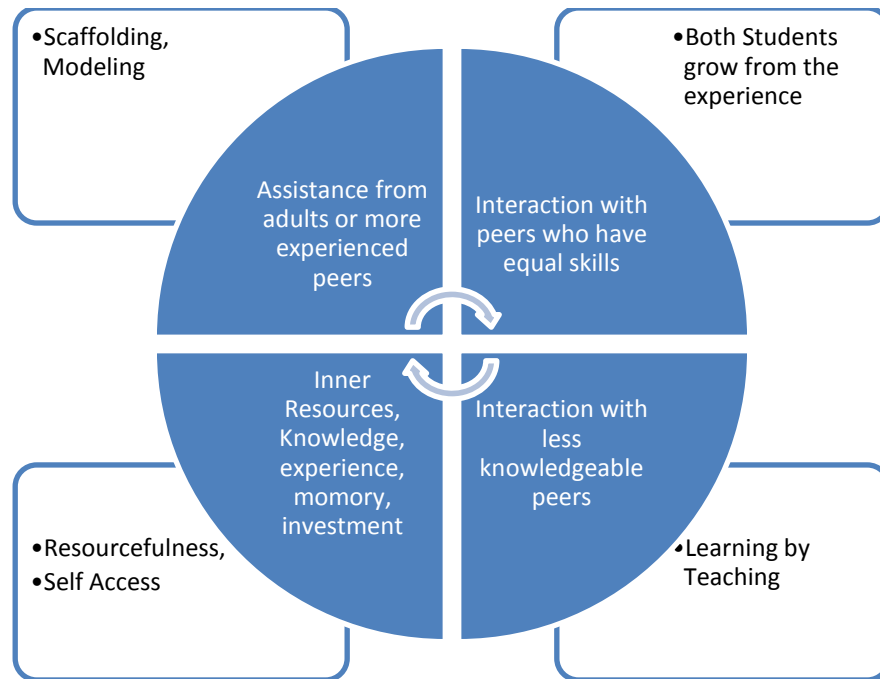
The second support used in the present study was scaffolded instruction. Scaffolded instruction involves providing models, examples, clues, and supports while students are in the

process of learning new skills, and then reducing the level of support as students gain skills (Vygotsky, 1978). Students are able to master complex tasks when they are provided with supports and tasks that build on previously learned skills.

Scaffolded instruction is based on the theory of the zone of proximal development, which identifies points in learning where the student is able to perform the task with support in the early stages of learning and then transition to working independently as they gain more skills. At the lower end of the zone of proximal development, the student is able to perform the assigned task with scaffolding. At the upper end of the zone of proximal development, the student is able to perform the task fairly independently (Wertsch, 1991).

Van Lier (2004) describes self regulated learning within the zone of proximal development, as shown in Figure 6 below, as an interactive process that combines modeling and assistance from adults or more capable peers, interaction with peers who have equal skills; interaction with less capable peers, and the use of inner resources such as knowledge, experience, memory, and personal investment (van Lier, 2004).

Figure 6: Expanded Model of the Zone of Proximal Development (van Lier, 2004; Walqui, 2006)



Seven features of effective pedagogical scaffolding. Walqui (2006) describes seven features of effective pedagogical scaffolding: continuity, tasks that are connected and repeated over time, contextual support, opportunities for students to explore their own learning, opportunities to access information in a variety of ways, participation in a shared community of practice, differentiation in task procedures based on individual needs, increased responsibility for the learning process as skills increase, and challenges that increase as the student's skills increase.

The first feature is continuity. There is continuity when tasks are connected to each other and they are repeated over time with variations in content and the level of support. Students receive contextual support when teachers provide examples and models. In classes that use scaffolded instruction, students are encouraged to explore as part of the learning process, and they are provided with opportunities to access information in a variety of ways. Students learn

through participation in a shared community of practice that encourages mutual engagement in the learning process (Walqui, 2000).

Task procedures are modified based on the needs of the learners. Students receive individualized feedback on their work. The level of support that is provided is based on individual student needs, and may be modified depending on each individual's rate of skill development. Students take on increasing responsibility for different aspects of the learning process as their skills and confidence increases. Skills and challenges become more complex as student readiness increases (Walqui, 2006).

Providing effective scaffolding. Methods that are useful in scaffolding instruction include modeling, thinking aloud, providing cues and prompts, regulating the difficulty of the task, anticipating difficult portions of the task, using discussion, peer mentoring, and providing models, checklists and rubrics (Tappan, 1998). Scaffolded instruction begins with the instructor modeling the skill or providing well done examples of the completed task. Thinking aloud, while in the process of completing a task or reviewing examples of a completed task, and explaining the goals and criteria for the task are effective methods for scaffolding instruction. Describing how well the task was executed also provides scaffolding for the assignment. Clearly explaining the components and procedural tasks involved in completing the assignment provides students with cues about the expectations of the task (Tappan, 1998).

Using simpler tasks that build the skills needed to complete a more complex task helps to regulate the difficulty of the task while the student is in the process of learning (Brookfield & Preskill, 2005). Anticipating difficulties and providing support where it is needed helps students to become proficient in difficult tasks. Giving students checklists, sample rubrics, and models helps them to monitor their own learning.

Using class discussion to help build students' understanding of difficult concepts helps them to expand their understanding of the subject matter and tasks that they are learning (Brookfield & Preskill, 2005). Class discussions and activities like think, pair, share which involves discussing new ideas with a partner, help students to understand new concepts. In addition, it helps students to learn the academic language associated with the new concept or skill (Walqui, 2000).

Developing Academic Language Skills with Scaffolded Instruction

Helping students to understand the academic language associated with the fields that they are learning involves helping them to learn to think, listen, speak, read, write, and act like professionals in that field (Gee, 2008). Providing opportunities for them to read a variety of texts of varying levels of complexity (Daniels & Zemelman, 2004), view videos from that field of study, do their own research alone and with their classmates provides a variety of scaffolded activities for learning. Discussing a variety of topics from the area that they are studying in both small and large groups, gives students the opportunity to build their knowledge and expertise (Freeman & Freeman, 2009b). Providing visual support through the use of Power Points, pictures, and realia helps students to understand the complex academic concepts that are presented in class (Freeman & Freeman, 2008).

Scaffolded instruction in writing. In this dissertation I used scaffolded instruction to help students improve their writing. This includes providing students with examples of well-written papers that follow the structure the instructor is asking them to produce. This helps them to understand the expectations of the task (Vygotsky, 1978). Giving reference materials that are needed to complete the task, such as providing a style guide that models how to cite the references in their paper gives them models to follow. Describing the goals, criteria, and thought

processes involved in completing the writing task help students to understand the expectations of the task.

Increasing understanding of academic language and content with scaffolded writing. Writing within different academic content areas helps students to learn the academic language that is unique to that content area (Freeman & Freeman, 2009b). Learning specific methods for writing within content areas helps students to increase their understanding of the academic content that is being taught (Gottlieb, 2006). As students read, write, and discuss issues within the academic field that they are studying, they learn the academic discourse of the field (Gee, 2008). In this dissertation study, students wrote reviews of articles in the field of education to expand their knowledge of issues in the education field and increase their awareness of the academic language used by educators. Providing scaffolded opportunities to write reviews of academic articles in the field of education was one of the techniques used in the current study to promote student understanding of important issues in the education field. Several researchers have examined the effects of learning to write within specific fields of study (Chanley-Wiik, Galin, Kasdof, & Haky, 2009; B. Hand, L. Hohenshell, & V. Prain, 2004a). Some of these studies are discussed below.

A mixed methods study done by Hand, Hohenshell, and Prain (2004) examined the effectiveness of varying amounts of planning, collaborative dialogue, and writing to learn activities to scaffold instruction with 87 students in a tenth grade biology course. Their comprehension of course material was assessed in a pre-test, a post-test immediately following the writing experience, and a post test eight weeks later. Thirty-four interviews were conducted to gather qualitative data about students' perceptions about their learning experience. One group of students participated in traditional biology instruction and conventional summarization

activities. Two groups used a science writing heuristic technique for summarizing lab activities (B. Hand, L Hohenshell, & V. Prain, 2004b). Students' knowledge of the concepts that were studied was tested using the Iowa Tests of Educational Development and two teacher constructed tests. Both groups of students who used the science writing heuristic techniques performed significantly better than the control group on assessments of content knowledge both immediately after writing and eight weeks later (Hand, et al., 2004a). This study had an effect size of 0.77 between the treatment groups and the control group in the meta-analysis done by Graham and Parin (2007). The Hand et al (2004) study suggests that providing scaffolded opportunities to help students learn to write within content specific classes may have positive effects on the understanding and retention of both the academic language and the academic content of specific areas of study.

A study conducted by Chanely-Wiik, Galin, Kosdof, and Haky (2009) contrasted the perceptions among students in a traditional second semester chemistry course and a six-hour honors course that combined the second semester of college writing and the second semester of general chemistry. Eighteen students participated in this combination course that focused on writing to learn. A student centered problem-based learning process was used in this course. Assignments were designed to encourage critical thinking, analytical reading, and writing. Students were encouraged to analyze their cultural and intellectual assumptions in their writing. They participated in multiple writing assignments that included revisions. Methods for improving and revising written assignments were discussed in class, and students were taught methods for effective peer review. Rubrics, checklists, and error logs were used to analyze students' writing.

Participants responded to a 30 question forced-choice survey at the end of the course. Twenty-two percent of the students in the honors course responded that the course helped them to convey their thoughts in writing extremely well, and 44.4% responded that the course helped them to convey their thoughts in writing considerably well (Chanley-Wiik, et al., 2009) . Only 6.7% of the students in the general chemistry class responded that the course helped them to convey their thoughts in writing extremely well and 21.5 responded considerably well. Twenty-two percent of the students in the honors class rated their abilities to present, assess, and analyze supporting data as extremely well, and 78% rated their abilities to present, assess, and analyze supporting data as considerably well. The students in the general chemistry class responded with extremely well 12.1% of the time, and 22.8% of the students responded considerably well. The studies done by Chanley-Wiik et al. (2009) and Hand et al. (2004) support the connection between developing academic language and improved academic achievement.

Scaffolding writing skills with models, grading rubrics, and questions. Knudson (1989) analyzed the effectiveness of providing models, grading rubrics and criteria, and questions with 138 students in fourth, sixth and eighth grade classes. Students were sorted by gender and then randomly assigned to four treatment groups within each participating class. Group one was provided with model writing samples. Group two was provided with questions, grading criteria and rubrics. Group three was given model writing samples, questions, grading criteria, and rubrics. Group four participated in free writing. Students in all treatment groups received twenty minutes of instruction on informational writing daily for fourteen days. After the treatment was completed post-test writing samples were scored holistically and with a grading rubric. The two groups that were provided with models scored significantly higher than the other two treatment groups (Knudson, 1989).

Scaffolding with strategy instruction, modeling, and collaborative writing. De La Paz and Graham (2002) examined the effectiveness of providing explicit instruction, modeling and group practice in pre-planning and writing expository essays in their quasi-experimental study at a middle school in the southeast. Thirty seventh and eighth grade students participated in the experimental condition and twenty-eight seventh and eighth grade students participated in the control group. All participants participated in the same introductory session on expository writing and wrote five timed essays to the same prompts. Participants' reading levels were analyzed based on their results on the Comprehensive Tests of Basic Skills that all of the participants had taken the previous spring to ensure that students' reading level was not a confounding factor. The experimental group wrote their first two essays in small groups. The control group wrote their first essay as a whole class.

The experimental group received instruction in the Plan and Write strategy, which included instruction about composing a thesis sentence, writing an introductory paragraph, and using interesting vocabulary, different sentence types, and transition words. The steps were modeled by the teacher. They were taught how to critique the quality of an essay. The students in the experimental group gave and received peer feedback, and they were tested about their knowledge of the Plan and Write strategy prior to writing their last essay.

Participants' final pre-writing plan and essay were analyzed with a scoring rubric. During the pre-test, eighty percent of the participants in both groups wrote their essays without a pre-writing plan. During the post-test and skill maintenance test the majority of both groups wrote a pre-writing plan, but 90% of the experimental group scored a four or five on a five point scale on their post-test pre-writing plan as compared with 30% of the control group. The experimental group wrote significantly longer essays that used a wider variety of vocabulary and

exhibited significantly better overall quality than the control group on both the post-test and the skill maintenance test (Paz, 2002).

Types of scaffolding on writing that are used by effective teachers. Frey and Fisher (2010) analyzed the instructional activities that effective teachers use to scaffold instruction in writing. In this qualitative study, eighteen teachers, whose students had performed well on standardized assessments and who had culturally diverse student populations were observed sixty-seven times over a nine week period. The teachers selected for this study all had student populations that were at least thirty-five percent English language learners and fifty percent low income based on eligibility for the free and reduced lunch program.

Each teacher was observed a minimum of three times during the observation period. All observations were digitally recorded and extensive field notes were taken during each observation. The observation data was transcribed, categorized, and coded using the constant comparative method. Themes were identified and the researchers met with a group of the participating teachers to verify their understandings and assumptions about what they had observed.

Four types of scaffolding were identified as being frequently used by the teachers that were observed. They used questions to check for understanding. Modeling and explanations were used to clarify information. Students were prompted to use cognitive and meta-cognitive strategies, and cueing was used to draw students' attention to specific issues (Frey & Fisher, 2010).

Formative Feedback

Formative feedback is another tool that was used in this study to help college students to improve their academic writing and their knowledge of academic language in general.

Formative feedback provides students with information that is designed to change either the student's thinking or their behavior (Shute, 2008). Effective formative feedback is timely, supportive, and specific. It focuses on the task rather than the individual. Several researchers have found that providing students with detailed information about how to improve a targeted skill is more effective than feedback that simply tells the student whether their response is correct or incorrect (Moreno, 2004; V. J. Shute, 2008). Formative feedback includes both information that is given before and after the task is completed that provides support for completing the task correctly. It is intended to be non-punitive, and it is designed to support learning.

Effective feedback provides the learner with two kinds of information. It lets the learner know about whether their answer is correct. It also provides the knowledge that is needed to support the learner in moving toward the correct answer (Mason & Bruning, 2001). Specific feedback can focus on either the topic or the student's response. More general feedback is provided by giving examples or overall guidance (V. J. Shute, 2008).

Goal oriented formative feedback. Goal directed feedback can be helpful and motivating when goals are set at an appropriate level for the individual learner (V. J. Shute, 2008). When goals are set too high the student is likely to become frustrated and give up (Birney, Burdick, & Teevan, 1969).. Krashen's (1990) input hypothesis of language acquisition is a good example of how this works. When students receive input that is slightly higher than their current language level, they are able increase their competence in that language. If the input is too high, the learner will not understand the message, and no acquisition will occur (Freeman & Freeman, 2009). In the same way, goal oriented formative feedback should challenge students without overwhelming them so that they will learn from the assignment.

Principals of formative feedback. Nicol and Macfarlane-Dick (2006) identified seven principles of good feedback. Good feedback helps to clarify the goals, standards, and criteria for good performance. It provides clear, high quality information to students about their learning. Opportunities for self-assessment are provided. Good feedback increases positive motivational beliefs and improves student's feeling of self efficacy. It provides opportunities for students to close the gap between their early performance and the desired performance, and it provides opportunities for teachers to adjust their teaching to meet student needs (Nicol & Macfarlane-Dick, 2006).

Formative feedback can be an effective way to scaffold learning. Setting specific learning goals, breaking the task into manageable parts, providing examples, and giving feedback about how the student's work differs from the expectation helps students to improve their skills. Clearly defining and modeling the expectation, and providing opportunities for the student to try the task without fear of major repercussions, if the task is done incorrectly, can help students to learn complex tasks. As skills are developed the amount of scaffolded support can be reduced (Branford, et al., 2000; Vygotsky, 1987).

Formative feedback and technology. Nicol (2009) examined the use of technology to provide formative assessment and feedback in two large cohort, first year college classes in psychology and French. In this study, 82 groups of 6 to 7 students worked together, interacting on a discussion board. Students received frequent feedback. They had opportunities to self-assess, and they received feedback from their peers. The course assignments followed a repetitive three-week pattern. In the first week students participated in a light writing assignment that involved individually responding to specific questions. Two responses were selected as examples which were posted on the discussion board. During the second week, students

participated in guided reading and on-line class discussions. During the third week, students posted in-depth responses to a prompt, and then worked with their group to develop a collaborative essay. Tutors adjusted their teaching to meet student needs. The course was designed with a specific sequence that helped students to develop their conceptual thinking about the subject being studied. After the courses were redesigned to provide students with more formative feedback, student course evaluations indicated higher levels of student satisfaction with the courses and students achieved higher grades on their final exams than in previous years, (Nicol, 2009).

Developing Academic Language Skills with Formative Feedback

Formative feedback is an effective tool for helping students to understand and use the academic language of their fields of study (Manning & Fennacy, 1993). Providing models, demonstrating through thinking aloud, and discussing key concepts and ideas helps students to expand their understanding of the language and practices specific to what they are learning (Gee, 2008). Specific, timely feedback helps students to correct misconceptions and improve their oral and written academic language (V. J. Shute, 2008).

Improving writing with formative feedback. Academic writing is a complex task that involves synthesizing information from a variety of sources, paraphrasing authors' ideas, and presenting an interpretation of what has been read. Students need to receive effective feedback to master this task (V. J. Shute, 2008). Models, thinking aloud, and rubrics can help students to understand the expectations of each writing task (Mason & Bruning, 2001). These tools also provide a structure for giving meaningful feedback.

Teaching writing strategies, setting goals and providing feedback. Teaching writing strategies and setting goals related to learning the strategies being taught is one method for

scaffolding the instruction of writing skills. Two studies that were analyzed in Graham and Perin's (2007) meta-analysis combined three strategies for improving writing skills had a very strong combined effect size. Schunk and Swartz (1993) analyzed the effects of setting clear, attainable writing goals related to instruction on specific writing strategies and providing students with individualized feedback on their writing. These studies sought to determine the effects of setting different types of goals related to instruction on writing and providing periodic feedback on writing achievement and student self efficacy regarding their writing skills. Each of these studies was conducted with fifth graders.

In the first study, 60 students from predominantly middle class backgrounds and several ethnic backgrounds were randomly assigned to four experimental conditions: process goal, process goal with feedback, product goal, and general goal (instructional control). Process goals were goals regarding the learning of specific instructional strategies that were being taught. Product goals focused on writing paragraphs without a focus on learning a specific writing strategy, and general goals focused on working productively for set periods of time. Students were given a pre-test of their writing self efficacy and writing skill. The self efficacy test measured students' perceptions about their ability to generate ideas, select a main idea, plan the paragraph, write a good topic sentence, and write supporting sentences in four types of paragraphs: informative, narrative, narrative descriptive, and narrative story. Students also wrote a sample paragraph from each of these four paragraph types. The paragraphs were holistically scored using a rubric that analyzed organization, word choice, sentence structure, creativity, and how well their writing style fit the assigned purpose (Schunk & Swartz, 2003).

All four groups received 45 minutes of instruction for 20 days on writing different types of paragraphs, with five days devoted to each type of paragraph. At the beginning of each week,

they were given a self efficacy test and a skills test about their ability to learn the five skills listed above related to each type of paragraph. At the end of each week, a post-test of their writing skills and feelings of self efficacy regarding their ability to write the type of paragraph that they had studied was conducted. Swartz & Schurnk (2003) found that the students who had a specific process goal and who received period feedback about how well they were learning the writing process that was being taught made the most growth in writing skill and feelings of self efficacy. The group that had a process goal without periodic feedback also did significantly better than the groups that had product and productivity goals. In addition both of the first two groups demonstrated significant growth over time in their feelings of self efficacy about their ability to learn the writing process being taught, with the process goal plus feedback group making the largest gains.

The second study had an effect size of 1.69 for the process goal plus feedback group in the meta-analysis done by Graham and Parin (2007). This study replicated the previous study with 40 fifth grade students from two classes at the same school, but added the component of a follow-up test of skill maintenance and self efficacy six weeks after the instruction was completed. In both studies, the students who were in the process goal combined with periodic feedback group scored significantly higher than all other groups on both skill acquisition and self efficacy. The process goal without feedback group scored significantly higher than the groups with product goals or general goals. In the second experiment, the group that received both a process goal and periodic feedback maintained their skills to approximately the same level they had achieved at the end of instruction, and they maintained high levels of self efficacy regarding their ability to write different types of paragraphs six weeks after the instruction was completed (Schunk & Swartz, 1993).

Observation and feedback. Zimmerman and Kitsantas (2002) examined the effects of two types of modeling with and without social feedback on the performance of seventy-two college undergraduates on a sentence combining task. Participants were randomly assigned to six experimental conditions: no modeling or feedback, social feedback only, mastery modeling with social feedback, mastery modeling without social feedback, coping feedback with social feedback, and coping feedback without social feedback. The social feedback consisted of oral positive feedback about using the strategy that was modeled. The mastery modeling involved demonstrating how to complete the sentence completion task with nine sample problems. The coping modeling groups observed as common mistakes in sentence combining were demonstrated and corrected. The number of errors was reduced as the sample problems were modeled, with the last three of the nine sample problems being modeled correctly.

The groups that received social feedback scored better than the groups that did not receive feedback, and the group that observed coping modeling did better than the group that observed mastery modeling. Both groups that observed as the task was modeled scored better than the groups that did not observe the task being modeled. The groups that observed the task being modeled had stronger feelings of self efficacy regarding their ability to correctly complete the sentence combining task. They also had higher feeling of self-satisfaction regarding their performance, and they had stronger beliefs about their ability to judge their own progress than those groups that had not observed the task being modeled. Social feedback did not have an impact on participants' feelings of self satisfaction or beliefs about their ability to judge their task completion (Zimmerman & Kitsantas, 2002).

Peer and teacher feedback. Beason (1993) analyzed the effects of teacher and peer feedback on students' revisions of academic papers. One-Hundred-and-one students from four

different content area classes at a university in the northwest, whose instructors had participated in a writing across the curriculum seminar, participated in this non-experimental study.

Documental analysis was used to determine the types of feedback that teachers and students provided, and the kinds of revisions that students made in response to the feedback that was provided. The feedback was categorized as problem detecting, advising, editing, praising, praising and suggesting, and describing. The feedback focused most on expression, followed by organization, focus, and mechanics. The majority of revisions made in response to feedback were surface level changes that did not change the meaning of what had been written. This was followed by local level changes which changed the meaning of what had been written at the micro-level. Relatively few changes were made at the global level where the essential meaning of the text was changed (Beason, 1993).

Conclusion

Hispanic college students often struggle with the oral and written academic language requirements needed for success in college (Maxwell-Jolly, et al., 2007).. A variety of social, educational, and linguistic factors affect Hispanic college students' readiness for college, but it is possible for these new college students to learn the skills needed for college success with appropriate support (Gándara & Contreras, 2009). Many college classes are not structured to meet the needs of this student population (Lemmers & Murphy, 2002). Classes that are taught using lecture as the primary format of instruction and multiple-choice tests as the major method for assessing progress do not provide adequate opportunities to learn the academic language of college and the specific discourse patterns of different fields of study (Freeman & Freeman, 2009b; Gottlieb, 2006).

Hispanic college students need engaging instructional techniques like cooperative learning in order to learn how to improve their academic language skills (Johnson, et al., 2007; Kagan, 1995). Scaffolded instruction and formative feedback may be effective methods for providing the needed support to assist Hispanic college students with the development of college level academic writing skills (V. J. Shute, 2008). Providing students with models, reference materials, and scaffolded assignments in research and academic writing combined with individualized formative feedback is anticipated to help them to understand the expectations of each task, and improve their knowledge and skills in their fields of study (Tappan, 1998; Wlodkowski, 2008).

Chapter three will examine the methods used to study the effectiveness of cooperative learning, formative feedback, and scaffolded instruction in improving Hispanic students' academic writing skills. It will also review student perceptions about the effectiveness of these three instructional strategies. Finally, the methodology used to analyze the effectiveness of these three instructional strategies will be explained.

Chapter 3

Through reading and writing strategy lessons, students and teachers discover the realities about reading and writing and demystify the processes. As they build confidence in the reading and writing they are already capable of doing, they become willing to risk participating in more sophisticated reading and writing, and as a result become more competent readers and writers (Goodman, 2003).

Hispanic college students need opportunities to build upon the reading and writing skills that they learned or should have learned in high school, so that their academic reading and writing skills can develop to the sophisticated level needed for success in college. In order to overcome the crisis of low levels of educational attainment among Hispanic students in the United States, colleges and universities need to do a more effective job of helping students make the transition from the types of reading and writing needed in high school to the types of literacy skills that are needed in college (Gándara & Contreras, 2009; Olsen, 2010). Many researchers have focused on the low levels of achievement by Hispanic students in public K-12 schools, but more research is needed about how to meet the academic needs of Hispanic students who are in college (Fry, 2002; Gándara & Contreras, 2009; Harklau, 2003; Menken & Kleyn, 2010; Olsen, 2010; Roberge, 2002).

Of the Hispanic students who make it to high school graduation, approximately fifty-four percent go straight to college after high school, but Hispanic college students have a completion rate for bachelor's degrees that is less than half the rate of white students (Fry, 2004b; Gándara & Contreras, 2009). Many factors contribute to the disparity in educational attainment between Hispanic students and students from other ethnic backgrounds. These factors include second language acquisition issues, previous school experiences, the effects of poverty, and students' feelings of self efficacy within the school setting. Although many of these factors are beyond the control of college educators, providing Hispanic college students with effective instruction

within the college environment is a reasonable expectation. In order to meet the needs of Hispanic college students and improve the educational outcomes of this student population, college instructors must provide the kinds of instructional techniques and academic support that encourage academic success.

In chapter 3, the purpose of this dissertation study and the research questions that will be addressed are explained. Next, the literature on the methodology used to evaluate the general effectiveness of the teaching strategies used in this study to improve participants' academic writing skills will be discussed. Then, the setting and participants for this study will be described. This will be followed by a discussion of the treatment that was used in this study. Finally, the data collection and data analysis methods will be described.

The Purpose of this Study

The purpose of this mixed methods research study is to analyze the effectiveness of three teaching strategies: cooperative learning, scaffolded instruction, and formative feedback, in improving the academic writing skills of Hispanic undergraduates in lower division education classes at an open enrollment university in south Texas. Deficits in written academic language appear to be a major factor that is contributing to the disparity in academic achievement between Hispanic undergraduates and undergraduates from other ethnic backgrounds (Harklau, 2003; Roberge, 2002). Information is needed about effective instructional practices to address the academic writing needs of the Hispanic undergraduate population (Wiley, et al., 2009).

Research Questions

In order to promote the academic success of Hispanic undergraduate students, information is needed about the types of instructional strategies that are helpful in supporting the development of good academic writing skills. Information is also needed about students' perceptions of specific teaching strategies, and actual student growth in response to the use of different instructional techniques. Qualitative data about students' perception regarding the instructional strategies used and their own learning was gathered through open ended survey questions, and interviews. Quantitative data was gathered by writing samples before and after the instructional strategies used in this study comparing overall student growth and growth within the subgroups delineated in the research questions described below. The research questions that will be addressed in this study are:

1. Does a cooperative learning teaching model combined with scaffolded instruction and formative feedback improve the academic writing skills of Hispanic college students in south Texas?
2. What are the perceived academic benefits of having participated in a college class where a cooperative learning teaching model combined with formative feedback and scaffolded instruction was used?
3. Is the impact of the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback different for Hispanic college students in south Texas who are long-term English language learners that started school in kindergarten or first grade, students who came to the United States in middle school as newly arrived immigrants with adequate formal schooling, and students whose first language is English?

Cooperative Learning and Collaborative Writing

Cooperative learning has been studied in a variety of ways. This review of the methodologies that have been used to analyze the effectiveness of cooperative learning and collaborative writing includes two meta-analyses of quantitative experimental and quasi-experimental research studies, three mixed methods studies, and one qualitative study. The quantitative data gathered on the effectiveness of cooperative learning and collaborative writing consists primarily of Likert style questionnaires and document analysis. The qualitative data has focused on interviews, participant observation, and self reflection.

Meta-analyses

Johnson, Johnson, and Smith (2007) conducted a meta-analysis of over three-hundred quantitative and mixed methods experimental and quasi-experimental research studies conducted in post-secondary educational settings. They compared the effectiveness of cooperative learning with competitive learning and individualized learning on a variety of factors, including individual achievement, enjoyment, perceptions of social support from peers and the instructor, and self esteem. There were moderate positive weighted-mean effect sizes in the areas of enjoyment, social support, and student achievement for cooperative learning compared with competitive and individualized learning modalities. There were mild to moderate positive weighted-mean effect sizes for positive self esteem when cooperative learning was compared to competitive and individualized learning.

Graham and Parin (2007) analyzed eleven different instructional techniques for improving academic writing among 4th through 12th grade students. Collaborative writing was one of the techniques that they found had a strong positive effect size. Graham and Parin's (2007) meta-analysis included seven experimental and quasi-experimental research studies on

the effectiveness of collaborative writing using Cohen's d . The standard mean difference of the post-test mean of the collaborative writing groups was subtracted from the post-test mean of the intervention group. Collaborative writing had an effect size of 0.75.

Pre-tests and Post-tests of Reading Skills

Three quasi-experimental studies conducted by Slavin, Stevens, and Madden (1988) analyzed the effects of cooperative learning on reading among third and fourth grade students. In the first study, 461 students in twenty-one classes participated. Eleven classes were randomly assigned to the experimental condition of using cooperative learning in reading instruction, and ten control classes continued to use traditional instruction. After adjusting for pre-test scores, an analysis of variance was done on class means on the California Achievement Test. The experimental classes made significantly higher gains than the control classes.

The second study conducted by Slavin, Stevens, and Madden (1988) added students who received remedial or special education services. In this study, 450 students in twenty-two third and fourth grade classes participated. Eleven classes were assigned to the experimental condition and eleven classes were the control group. Pretests were done prior to the intervention, and post-tests were done after the intervention using the Durrel Informal Reading Inventory. An analysis of variance was done between the pre-tests and post-tests. The experimental cooperative learning groups scored significantly higher than the control groups in the areas of word recognition, word analysis, fluency, error rate, and grade placement. The students who received remedial or special education services made larger gains than the students in general education.

The third study done by Slavin, Stevens, and Madden (1988) analyzed the effectiveness of cooperative learning combined with direct instruction, direct instruction only, and control

groups. Thirty third and fourth grade classes participated in this study. An analysis of variance was done comparing class means between the three groups on the informal reading inventory. The cooperative learning plus direct instruction group exceeded the control group by 82% of a standard deviation on identifying the main idea. The direct instruction only group exceeded the control group by 58% of a standard deviation on identifying the main idea. The cooperative learning plus direct instruction group exceeded the control group by 31% on understanding inferences, and the direct instruction only group exceeded the control group by 20% of a standard deviation on understanding inferences.

Survey, Interview, and Participant Observation

Tinto's (1997) mixed methods study gathered quantitative data on student attributes and perceptions of a cooperative learning instructional model using Likert style questionnaires at the beginning and end of the first quarter that students were enrolled as freshmen at Seattle Community College. Students who participated in classes that were tied together with a unifying theme using a cooperative learning instructional model were compared with students who participated in classes that used a traditional curricular model. One-hundred-twenty-one students who participated in the experimental condition and one-hundred-sixty-six students from the comparison group responded to both surveys.

Qualitative data was gathered through participant observation in classes and interviews. The participant observation consisted of three one-week observations at each instructional site. Thirty-six interviews were conducted with participants who responded to two questionnaires. An inductive analysis was done to identify major themes within the qualitative data. Quantitative data was gathered from Likert style surveys, a document review of students' grades and enrollment patterns.

Dale's (1994) mixed methods study with 24 students in a ninth grade English class analyzed the quality of interactions of eight heterogeneous collaborative writing triads. The collaborative writing triads were auto-taped during their third collaborative writing assignment. These sessions were transcribed and coded. From the information gathered from these transcripts, the researcher and the English teacher who taught the class selected three groups to study more in-depth to identify the dialogic characteristics of successful group collaborative writing based on the amount of student interaction, the level of productive interaction, and the amount of engagement in the task. The three groups identified were coded as a model group, a typical group, and a problem group. The twenty-four participants all responded to a Likert-style questionnaire to obtain information about their perceptions of the collaborative writing process. Twenty-two of the twenty-four participants also participated in brief interviews to clarify information gathered in the questionnaire. Participation in the interviews was based on the participants' availability.

Survey

Morgan, Rosenberg, and Wells' (2010) mixed methods study with three undergraduate classes at a predominately Hispanic serving university analyzed student responses to the use of a cooperative learning instructional model. A pre-test was done using a quantitative survey with a Likert scale. A post-test survey was administered containing quantitative questions using a Likert scale, open-ended questions, and demographic questions. An analysis of variance was used to compare the pre and post-test quantitative data. The qualitative data was analyzed for unifying themes. The participants reported that they enjoyed participating in a cooperative learning instructional model. They felt more responsibility to come to class prepared, and they

thought that they would be likely to using cooperative learning in their own classes when they became teachers.

Phenomenological Self-Reflection

Ritchie and Rigano's (2007) qualitative research study analyzed the process of collaboratively writing a research article from a phenomenological perspective. Through the process of self-reflection and interactive oral and written discourse they constructed the story of their research partnership. The process of thinking and writing together side-by-side helped them to develop a unified voice as authors. Table 3 summarizes the studies reviewed on cooperative learning and collaborative writing.

Table 3

Research on Cooperative learning and Collaborative Writing

Researcher(s)	Study	Method of Study
(Johnson, et al., 2007)	Compared student perceptions of cooperative learning with student perceptions of competitive and individualized learning	Meta-Analysis
(Graham & Perin, 2007)	Analyzed instructional techniques to improve academic writing including collaborative writing	Meta-Analysis
(Slavin, et al., 1988).	Three studies compared the effectiveness of various combinations of cooperative learning and direct instruction	Quantitative Quasi-Experimental
(Tinto, 1997)	Compared student persistence in college classes that use a collaborative problem solving model with a traditional curricular model.	Mixed Methods
(Morgan, et al., 2010)	Analyzed student perceptions of cooperative learning	Mixed Methods
(Dale, 1994)	Identified the types of behaviors that an effective group engaged in collaborative writing display.	Mixed Methods
(Ritchie & Rigano, 2007)	Reflected on the phenomenon of writing an academic journal article collaboratively	Qualitative

Scaffolded Instruction

Scaffolded instruction on various aspects of academic writing is the second instructional technique that was used in this mixed methods dissertation research study. Scaffolded instruction on writing has been examined quantitatively in several experimental and quasi-experimental studies. Rubrics and holistic scoring have been used to analyze differences between pre and post-test writing samples. In addition, quantitative Likert type surveys have

been used to analyze students' perceptions about how specific instructional strategies have affected their writing skills. Qualitative research has been used to gather data about the types of scaffolding that effective teachers provide through participant observation. The methods used in these studies are described below.

Document Analysis

Knudson (1989) examined the effectiveness of providing models, scales, questions, and grading criteria on improving academic writing. In this experimental study, 138 students from fourth grade, sixth grade, and eighth grade were randomly assigned to one of four treatment groups. Group one was given model pieces of writing. Group two was given grading scales, questions, and the criteria for grading. Group three was given models, grading scales, questions, and the grading criteria. Group four participated in free writing. A non-orthogonal analysis of variance was used to determine whether there was a statistical significance between high level readers and low level readers based on the participants, scores on the Iowa Test of Basic Skills prior to beginning the study, so that reading level could be ruled out as a confounding factor. Non-orthogonal repeated measures analyses of variance were conducted within groups based on reading level and between groups to analyze the effects of the different experimental conditions (Knudson, 1989). The groups that were provided with models scored significantly higher than those groups that did not receive models. Being given the grading criteria and questions did not improve the participants' writing skills.

De La Paz and Graham (2002) examined the effect of providing scaffolded instruction on planning, writing, and evaluating expository essays in a quasi-experimental study done in two middle schools in the southeast. Thirty students participated in the experimental condition and twenty-eight students were in the control group. All of the participants received the same

overview on expository writing prior to participating in the pre-test. They all wrote five timed essays to the same prompts. The experimental group worked in groups to plan, write and evaluate the first two essays. The control group wrote the first essay as a whole class activity and then wrote four essays independently. The experimental group received instruction and modeling on the planning process, the development of a thesis, paragraph writing, the use of interesting vocabulary and transition words, and evaluated the quality of essays. They worked with partners to evaluate several essays. Rubrics were used to evaluate the pre-test, post-test, and maintenance test, which was administered one month after the post-test. A 2X2 repeated measures analysis of variance was used to analyze the participants' prewriting plans, essay length, vocabulary, and overall quality of the essays. The experimental group performed significantly better on all measures than the control group and maintained improved writing skills on the maintenance test (Paz, 2002).

Survey

Chanley-Wiik et al. (2009) analyzed the effects of pairing a college level honors chemistry class with a college writing class to promote critical thinking, reading, and analytical writing. Scaffolding was provided through instruction about how to improve and revise analytical writing assignments, peer review, instruction on effective peer review techniques, the provision of rubrics and checklists, and the use of error logs to promote awareness of the types of errors being made. At the end of the semester-long course, students from these paired chemistry and writing classes, and students from a regular chemistry class responded to a Likert style survey about their perceptions of their ability to convey their thoughts in writing, as well as their ability to present, assess, and analyze data. The experimental group had significantly more

positive perceptions of their ability to convey their thoughts in writing and their ability to present, assess, and analyze data than the control group.

Participant Observation

Frey and Fisher (2010) analyzed the types of scaffolding of academic writing that effective teachers provide their students. They observed eighteen teachers whose students performed well on standardized tests of writing, and whose classes were composed of at least fifty percent students who were eligible for free or reduced lunch, and a minimum of thirty-five percent of the students were English language learners. The researchers completed sixty-seven observations over a nine week period. Each of the teachers who participated in the study was observed a minimum of three times. Extensive field notes were taken and each observation was digitally recorded. The observations were transcribed, coded, and categorized. The researchers used the constant comparative method as they identified themes. The researchers validated their assumptions and understandings of the observation data by having a small sample of the participants review their findings. Four types of scaffolding were found to be common across teachers: modeling and explanations; the use of questions to check for student understanding; prompting to encourage students to use cognitive and meta-cognitive strategies; and cuing to focus students' attention to particular issues (Frey & Fisher, 2010). Table 4 presents a summary of the research studies on scaffolded instruction in writing.

Table 4

Research on Scaffolded Instruction in Writing

Researcher(s)	Study	Method of Study
(Knudson, 1989)	Examined the effect of providing models, grading scales and criteria, and questions to improve informational writing among 4 th , 6 th , and 8 th grade students	Experimental
(Paz, 2002)	Analyzed the effects of providing scaffolded instruction on pre-planning, writing and evaluating expository essays with middle school students	Quasi-experimental
(Chanley-Wiik, et al., 2009)	Assessed the impact of scaffolded instruction and peer review on Analytical writing in college chemistry classes	Quasi-experimental
(Frey & Fisher, 2010)	Examined the types of scaffolding on writing that effective teachers provide during guided learning	Qualitative

Formative Feedback on Writing

The third instructional strategy being used in this dissertation study is formative feedback on writing. Document analysis using rubrics have been employed to assess the effectiveness of formative feedback to help students improve their writing skills. Surveys have been used to analyze students' perceptions about how their learning has been affected by the feedback that they received.

Document Analysis and Survey

Schunk and Swartz (1993) conducted two studies on the effectiveness of setting different types of goals and providing progress feedback on writing achievement and students' feelings of self efficacy regarding their ability to write different types of paragraphs. Within each class, students were divided by gender and then students from both genders were randomly assigned to four different experimental conditions: process goal, process goal plus progress feedback, product goal, and general goal. A Likert-style survey of students' feelings of self efficacy regarding their ability to learn how to write different types of paragraphs effectively was administered on a weekly basis. In addition, a writing sample was holistically scored based on organization, sentence structure, word choice, creativity, and how well the style fit the purpose. A pre-test and a post-test of self efficacy and writing skills were administered each week for four weeks as a new type of paragraph writing was introduced. The self efficacy test consisted of a survey about the students' beliefs about their ability to learn to write the type of paragraph that was being taught that week, and the writing skills test was a written paragraph which was evaluated with a rubric.

A skill maintenance test was given six weeks after the post-test in the second experiment. Multivariate analyses of covariance were used to analyze the four conditions: process goal, process goal plus progress feedback, product goal, and general goal. The corresponding pre-tests were used as covariates. Post-test means were evaluated with Dunn's comparison procedure for multiple measures. The students in the process goal plus progress feedback group made the largest gains in their writing skills and demonstrated significantly higher feelings of self efficacy about their ability to learn the skills needed to write different types of paragraphs (Schunk & Swartz, 2003).

Zimmerman and Kitsantas (2002) examined the use of two types of modeling: mastery modeling and coping modeling with and without social feedback about correct use of the steps in the modeled strategy for combining simple sentences into more complex sentences in a quasi-experimental quantitative study with seventy-two undergraduate students at a selective southeastern university. Mastery modeling involved correctly modeling the revision procedure in nine training problems. Coping modeling involved making several errors and correcting those errors in the first few training problems, gradually reducing the number of errors, and finally modeling the revision process without errors in the last three training problems.

Post-test surveys were used to analyze students' self efficacy beliefs regarding their ability to successfully complete the sentence combining task, their feelings of self-satisfaction with their performance on the sentence completion task, and their intrinsic interest in the writing task. A 3X2 factorial univariate and multivariate analysis of variance was used to compare the six experimental conditions. Post-hoc comparisons were made between conditions using Tukey's tests. Relationships were analyzed with zero-order correlational analysis. The groups that received modeling and the groups that received social feedback expressed higher levels of self efficacy, self satisfaction with their task completion, and more intrinsic interest than the groups without modeling or feedback (Zimmerman & Kitsantas, 2002).

Document Analysis

Beason (1993) analyzed the types of written feedback that teachers and peer reviewers provide, the percentage of review comments that are used when students are revising written papers, and the types of changes students make when revising a paper in response to feedback in a non-experimental research study in four classes in different academic content areas at a university in the northwest. The first and final drafts of academic papers that required multiple

drafts were analyzed. Written comments from teachers and peer reviewers were numbered and coded based on the aim of the comment, the criterion reflected, and the revision outcome.

Percentages were calculated for each of the measured criteria. Comments about improving expression were provided most often, followed by comments about developing and supporting ideas. Surface level revisions were the most common type of revisions done in response to the feedback that was provided (Beason, 1993). Table 5 summarizes the studies on feedback on writing.

Table 5

Review of Research on feedback and writing

Researcher(s)	Study	Method of Study
(Schunk & Swartz, 2003)	Assessed the effects of setting different types of writing goals and providing progress feedback on students' informative writing	Quasi-experimental
(Zimmerman & Kitsantas, 2002)	Analyzed the effects of different types of modeling with or without social feedback on undergraduates' performance on a sentence combining task, and students' feelings of self efficacy and self-satisfaction related to their task performance	Experimental
(Beason, 1993)	Examined the purposes for written feedback and how feedback is used in revising academic papers in different academic courses	Non-experimental

Methodology

The focus of this dissertation study is to determine the effectiveness of the combined use of three instructional strategies: cooperative learning, scaffolded instruction, and formative feedback in helping Hispanic students enrolled in a lower division undergraduate education class to learn to write well constructed reviews of academic journal articles in the field of education using an APA 6 format and references. This mixed methods action research study included a non-experimental quantitative component and a qualitative component. Document analysis and a survey containing Likert style questions were used to gather quantitative data.. Qualitative data was gathered through interviews and open-ended survey questions. The methodology is described in more detail in the following sections of chapter three.

Setting

The site of this study is an open-enrollment university in the lower Rio Grande Valley region on the Texas/Mexico border. Ninety-three percent of the students enrolled at this university are Hispanic. Thirty percent of the student body is over twenty-five years old, and forty-five percent of the students are attending college part-time. The population in this region is over 85% Hispanic (Census, 2010b). Seventy percent of the population in this area speaks Spanish, and over half of the Spanish-speaking population reported that they speak English less than very well on the U. S. Census, 2010.

Participants

The participants were forty-six students from two sections of the second course in the series of courses required for teacher certification in the state of Texas that was being taught by the researcher. The majority of the participants were Hispanic. All of the students in the two courses in which this study was conducted were invited to participate. The majority of the

students in each class volunteered to participate in the study. Table 6 shows the break-down of several critical participant characteristics.

Table 6:

Participant Characteristics

Demographic Characteristic	Descriptors	Number of Participants	Percent
Age	Under 19 Years Old	1	2.2
	19 to 24 Years Old	20	43.5
	25 - 29 Years Old	13	28.3
	30 – 45 Years Old	10	21.7
	Over 45 Years old	2	4.3
Race/Ethnicity	Hispanic	42	91.3
	Caucasian	4	8.7
Primary Language Starting School in the U. S.	English	18	39.1
	Spanish	28	60.9
Year in College	Freshman	1	2.2
	Sophomore	13	28.3
	Junior or Senior	32	69.6
Current Grade Point Average in College	Below 2.0	2	4.3
	2.0 – 2.4	1	2.2
	2.5 – 2.9	17	37.0
	3.0 – 3.4	15	32.6
	3.5 and Above	11	23.9
Employment	None	5	10.9
	Part-time	17	37.0
	Full-time	24	52.2
Raising Children	Yes	21	45.7
	No	25	54.3

A cross-tabulation of the demographic information that was given by participants who completed the post-test survey about when they entered school in the United States and their primary language when they entered school in the United States is shown below in Table 7. Seventeen participants started school in the United States in kindergarten speaking English, and twenty-one participants started school in the U. S. in kindergarten speaking Spanish. Two participants started school in elementary school speaking Spanish. Four participants started

school in the U. S. in middle school speaking Spanish, and one participant started school in the U. S. in middle school speaking English. Two participant started school in the U. S. in high school speaking Spanish.

Table 7:

Comparison of Primary Language When Participants Entered School in the U. S.

		Primary Language * Started School in US Cross-tabulation					Total
		Started School in US					
Primary Language	Started School in U. S. - English	Started School in U. S. in kindergarten	Started School in U. S. in Elementary	Started	Started		
				in U. S. Middle School	in U. S. High School		
Primary Language Starting School in U. S. - English	primary	17	0	1	0	18	
Primary Language Starting School in U. S. -Spanish	primary	21	2	3	2	28	
Total		38	2	4	2	46	

Many of the students that participated in this study are non-traditional students. Over half of the participants are older than the typical age during which students generally complete a bachelor's degree. Of the students who are in the typical age range for completing a college degree, a fairly large percentage of these students work either full or part-time, are raising children, or both. Table 8 shows how many students who participated in this study are working in addition to attending school broken down by age.

Table 8:

Age/Employment Comparison

		Employment			Total
		None	Part Time	Full Time	
Age	Under 19 Years Old	0	0	1	1
	Between 19 & 24 Years Old	4	11	5	20
	Between 25 & 29 Years Old	1	4	8	13
	Between 30 & 45 Years Old	0	1	9	10
	Over 45 Years Old	0	1	1	2
Total		5	17	24	46

Thirty percent of the participants of this study who are between the ages of 18 and 24 are working full time. Fifty-five percent of the participants in the typical college student age range are working part time while they are attending college. Twenty-five percent of these students are raising children while they are attending school, as shown in Table 9.

Table 9:

Break Down of Students Raising Children by Age

		Age & Children Cross-tabulation				Total
		Children				
Age		None	One	Two	Three or more	
	Under 19 Years Old	0	0	1	0	1
	Between 19 & 24 Years Old	16	0	4	0	20
	Between 25 & 29 Years Old	5	3	2	3	13
	Between 30 & 45 Years Old	3	1	4	2	10
	Over 45 Years Old	1	0	1	0	2
Total		25	4	12	5	46

The students who participated in this study are fairly representative of the student population of the university where this study was conducted. The major differences were that there were no students under the age of eighteen who participated in this study, and all of the participants were either Hispanic or Caucasian. A breakdown of the age and ethnicity of the study sample and the university population is shown in Table 10.

Table 10:

Comparison of Age and Ethnicity between the Study Sample and the University Population

Demographic Characteristic	Study Sample	University Population
Age	Less than 18	0%
	18 to 24	46%
	25 to 29	28%
	30 or older	26%
Ethnicity	Hispanic	91%
	Caucasian	9%
	Other	0%

Fifty-four percent of the participants in this study were over twenty-five years old. This compares to forty percent of the university population. All of the participants in this study were either Hispanic or Caucasian. Five percent of the population of the university were this study was done are from other ethnic backgrounds, but the study sample was 91 percent Hispanic. This compares closely with the university population, which is 92 percent Hispanic.

Interviewees

The nine participants were interviewed. They were selected based on their availability to participate in an interview and their language and educational backgrounds. An attempt was made to represent each educational and language background that was used for comparison in this study. Pseudonyms were used for all interviewees.

Mary. Mary is twenty-three years old. She is married. She has no children. She attends college full-time, and works part-time as a bank teller. She started school in the United States in kindergarten speaking Spanish. She did not receive any instruction in Spanish. Mary is planning to teach special education. She is currently a junior in college.

Juan. Juan is thirty years old. He is married to Mary. They have no children. He works full-time at a detention center for immigration security, and he attends school full time. His

primary language was Spanish when he entered school in the United States in kindergarten. He reported that he did not receive any first language support in school. Juan is planning to teach special education. He is a junior in college.

Maria. Maria is forty-three years old. She is married, and she has three children, ages nineteen, seventeen, and eight. She works thirty to forty hours a week as a paralegal and a substitute teacher at a private school. She is taking three classes a semester. Maria moved to the United States after completing first grade in Matamoros, Mexico. She repeated first grade in the U. S. in an all English class, with no first language support. Maria is planning to teach bilingual education at the elementary level.

Carlos. Carlos is twenty-six years old. He is married and he has one child. He works full-time at a call center. He is attending college part-time. He started school in the United States in pre-K speaking Spanish. He received some first language support during Pre-K and kindergarten. Carlos is in his junior year of college.

Cynthia. Cynthia is twenty-one years old. She is single and she has no children. She works part-time and she attends school full-time. She has completed approximately sixty hours of college. Cynthia moved to the United States in fifth grade speaking only Spanish. She had attended school regularly in Mexico prior to moving to the U. S.

Sandra. Sandra is thirty-nine years old. She is married and she has three children. She works full time and she attends college full time. She has completed eighty-nine college hours. Sandra started school in the U. S. in kindergarten speaking both English and Spanish, but reported that her primary language was Spanish. Sandra plans to teach bilingual education at the elementary level.

Jose. Jose is twenty-two years old. He is single, and he has no children. He works full-time. He works half-time at the university and he works three nights a week as a server in a restaurant. He has completed 106 hours of college. His primary language is English, and he received all of his education in the United States. Jose plans to teach music at the high school level first, and eventually he would like to teach music at the college level.

Julie. Julie is twenty-four years old. She is married. She does not have any children. She works full time at a notary public office. She has completed fifty-one college hours. She is attending college full-time. She attended kindergarten in Mexico and the United States. She spoke both English and Spanish when she started school. Her parents are fluent in both English and Spanish. She reported that her primary language in kindergarten was English. She did not receive any bilingual education services. Julie would like to teach pre-K, kindergarten, or first grade.

Ana. Ana is twenty-nine years old. She is married, and she has three children. She is employed full-time at a middle school. She has completed thirty hours of college. She started school in the United States in ninth grade speaking Spanish. Ana plans to teach fifth grade.

Data Collection

Surveys containing forced choice questions using a Likert scale and open-ended questions (See Appendix A) were used in this study to gather information about students' perceptions of the interventions that were used. Document analysis was used to compare students' first written article review with their last two article reviews. One of the last two article reviews was written independently and one of these reviews was written with a partner.

Phase one: pre-test. The pre-test was made up of two components, a questionnaire and a writing sample.

Questionnaire. The questionnaire used in the pre-test was a forced choice survey using a Likert scale that has been used in several other studies about student perceptions of cooperative learning (Morgan, et al., 2010). This survey focuses on student perceptions of the effectiveness and fairness of cooperative learning. It also assesses students' opinions about how a cooperative learning model affects student learning.

Writing samples. The pre-test included an individually written review of an academic journal article that was provided by the researcher. Participants were randomly assigned to eight groups in each class. Each group was provided with a different article about English language learners (ELL) or bilingual education. Students were provided with a model of a well written article review and an abbreviated American Psychological Association (APA) sixth edition style guide. Each student wrote their own review of the article and worked with their assigned partners to develop and present a presentation using a PowerPoint about the article.

Phase two: instruction and interventions. Students received written feedback on their first article reviews and PowerPoint presentations. The researcher provided instruction on writing an effective article review, academic writing, and citing sources within the text of an article review and in the reference section of their review. Lessons were based on the most commonly seen problems within the first set of article reviews.

Prior to writing their second article review, a research librarian gave a presentation about how to use the library's research data bases. Each group selected on type of disability that students receive special education services for in public schools. Students worked with their partners to find appropriate journal articles about the disability that their group was assigned to research. As a group they found three articles on their assigned topic to review. This was done in class, and the researcher assisted each group with navigating through the databases and

selecting appropriate articles. Students worked with their partners to review each others' article reviews and make changes prior to turning their article reviews in to the instructor. They also created and delivered a presentation combining the information from the three articles that they reviewed. Students had the choice of creating a poster, a Power Point, or an educational game to support their second presentation. Students received written feedback on their article reviews, but the second article review was not analyzed for this study.

The researcher reviewed the key elements of writing a successful article review before students wrote their third article review. Before the participants wrote their third article review, students worked with a partner to write a review of part of an article provided in class as part of a jig-saw activity, and they practiced writing an APA 6 style reference for the article. Students selected their own topic related to the course content for the third article review. They worked independently to find an appropriate article to review, and write their third article review. They received written feedback on the third article review.

The participants' final article review was written in class with a partner of their choice. Students read the assigned article as homework. Then they worked with a partner to write a review of the article and write APA 6 style references for three articles in class.

Phase three: post-test. The post-test included a survey and document analysis. Students responded to the same forced-choice survey that they responded to during the pre-test. They also responded to demographic questions, and several open-ended questions (See Appendix B) about their perceptions about the different instructional strategies that were used in this study. The third article review that each participant wrote independently and the last article review that was written with a partner were used for comparison with the first article review written by each participant, which were scored using a rubric (See Appendix C).

Phase Four: Interviews

Six interviews were conducted to gather qualitative data about students' perceptions about their experiences with the different instructional strategies used in this study (See Appendix D for interview questions). Two interviews were done with participants who started school in the United States in kindergarten or Pre-K speaking Spanish as their primary language. Two interviews were done with participants who moved to the United States while they were in middle school speaking Spanish as their primary language. Both of these students had received adequate formal schooling in their home country prior to moving to the United States. Two of the interviews were done with Hispanic participants who started public school speaking English. Students with different educational backgrounds were interviewed to gather information about the perceptions of students from different language and educational backgrounds to determine the qualitative differences in their experiences with the instructional strategies used in this study. The data that was collected in this study, the purpose for gathering this data, and the method(s) used to analyze the data is described in Table 11.

Table 11

Data Collection and Analysis		
Data Collected	Purpose	Method of Analysis
Likert style survey	Gather information about student perceptions about how the use of cooperative learning affected their learning experience	T-tests of pre and post-test surveys
Comparison of early writing samples with later writing samples	Measure student growth in the area of academic writing	Analysis of variance between first writing sample and last two writing samples
Comparison of quantitative survey data and student growth between subgroups	Compare students' experiences with the instructional strategies used in this study and student growth in academic writing skills across subgroup: English speaking when starting school; long-term English learners, and immigrants in middle school with adequate formal schooling	Multivariate analysis of variance
Open-ended survey questions and interviews	Identify major themes from students' experiences with the instructional model used in this study and to determine if the phenomenological experience was different for the three participant subgroups	Coding and thematic analysis
Demographic Data	Identify the characteristics and risk factors affecting the student population that participated in this study, and to identify subgroups	T-tests between comparison groups

Data Analysis

Quantitative data. The qualitative data that was analyzed includes the responses to the forced choice items on the pre and post test with the cooperative learning survey and each of the items on the writing analysis matrix. A comparison was made on the ratings given on each item

that was analyzed from the participants' first article review and their last two article reviews. Categorical statistics were calculated for each variable including means, standard deviations, and ranges of variance. Effect Size was used to analyze student growth (Creswell, 2009; Muijs, 2004). The survey instrument that was used in this study to measure student perceptions about the effectiveness of cooperative learning had been validated in previous a previous study (Morgan, et al., 2010).

Qualitative data. A phenomenological approach was used to analyze the qualitative data generated from interviews and open-ended survey questions. Significant statements were identified, and essence descriptions were developed (Creswell, 2009; Moustakas, 1994). An observation protocol and extensive field notes were used during interviews (Spradley, 1980). Reflective notes were written immediately following each interview. Grounded theory was used to generate categories of information. Axial and selective coding were used to analyze the data generated from interviews and the open-ended questions from the post-test survey (Corbin & Strauss, 2007; Creswell, 2009). A thematic analysis was also be used to analyze the data from interviews and open-ended surveys (Brenner, 2006). Comparisons were made across informants to identify major themes.

Conclusions

The research that has been done on the use of cooperative learning and collaborative writing, scaffolded instruction, and formative feedback includes meta-analysis, quantitative experimental, quasi-experimental and non-experimental designs, mixed methods designs, and qualitative designs. The quantitative studies used pre and post-tests that were based on survey

data and document review. The qualitative data included information from interviews, self reflection, and participant observation.

In this study, quantitative data was gathered from forced choice surveys using a Likert scale and document analysis comparing participants' first article review with their last two article reviews, one of which was written independently and one that was written with a partner. The qualitative data that was collected includes responses to open-ended questions and interviews. The quantitative data was analyzed with t-tests and analysis of variance (ANOVA). The qualitative data was analyzed from a phenomenological perspective using axial and selective coding, and thematic analysis.

The data that was gathered in this study will be discussed in chapter four. The demographic data that was gathered will be described, and how participants were grouped by category will be explained. The quantitative data from the Likert style pre and post-test survey on cooperative learning will be presented. The quantitative data from the document reviews using the rubric in Appendix C of participants' writing samples will be discussed, and finally the thematic analysis of students' responses to open-ended survey questions and interviews will be shared.

Chapter 4

My baby lives on Southmost Road.

In a wood frame house, she takes care of her grandpa, Joe.

She works nine to five at Lopez Number Three.

One of these days, she is going to get her degree at UTB (Tamayo, 2009).

The adult Hispanic population has significantly lower levels of educational attainment than all other ethnic groups in the United States (Census, 2010b). Those Hispanic adults who do attend college frequently fail to complete their college degree (Wiley, et al., 2009). Many factors contribute to the low levels of college completion by Hispanic adults. A large percentage of Hispanic college students are non-traditional students who are taking care of children or elderly relatives and/or working while they are attending college (Fry, 2002). In addition, many Hispanic college students begin their college career with inadequate academic preparation for college level work, either because they have been out of school for several years or because their high school experience did not adequately prepare them for college level work.

Academic writing is one skill that a large percentage of Hispanic college students need additional support with in order to succeed academically in the college setting. Weak academic writing skills is a particularly significant issue for Hispanic English language learners (Freeman & Freeman, 2009b). Hispanic college students need multiple opportunities to learn the skills associated with writing in different academic content areas in order to succeed in college (Freeman & Freeman, 2009b; Gee, 2008; Wiley, et al., 2009). In addition, they need explicit instruction, models, opportunities to practice skills with partners, and effective feedback in order to develop the advanced writing skills needed for college success (Graham & Perin, 2007).

The Problem

The instructional methods that are most commonly used in college classes often fail to provide adequate writing opportunities or the supports needed for Hispanic college students to improve their academic writing skills to the advanced level needed in college (Cazden, 2001). Lecture and multiple choice tests are used approximately 80% of the time in most college classes (Lemmers & Murphy, 2002). Without opportunities to practice advanced academic writing skills and receive feedback about their writing within different academic content areas during their first two years of college, many Hispanic college students do not develop the writing skills needed to succeed in upper division college classes (Fry, 2004a).

Purpose

Effective instructional strategies are needed to help Hispanic college students gain the academic skills needed for college success. This study examined three strategies that previous research has shown to be effective in improving students' academic writing skills (Graham & Paren, 2007; Plala, 1995, Tinto, 1997). The purpose of this study was to determine the effects of these strategies on Hispanic college students, many of whom were generation 1.5 students who displayed similar academic difficulties to long-term English language learners (Harklau, 2003; Roberge, 2002).

Three instructional strategies: cooperative learning, scaffolded instruction, and formative feedback were analyzed to determine their effectiveness in improving Hispanic undergraduates' academic writing skills. Student perceptions of the instructional techniques that were used in this study were also analyzed to determine which components of each technique were perceived to be most helpful for all participants and the participant subgroups of the Hispanic college student population described in research question three.

Cooperative learning was the first instructional strategy used with the participants. Collaborative writing, jig-saw activities with academic journal articles, and think-pair-share activities were the types of cooperative learning activities that were used most often in this study. Research indicates that cooperative learning results in more positive attitudes toward college, better integration into college life, improved class attendance, and better course completion rates (Johnson, et al., 2007). One method of using cooperative learning to support the improvement of academic writing skills implemented in this study was collaborative writing, which has been identified as an effective method for helping students to improve their writing skills (Graham & Perin, 2007).

The second support used in this study was scaffolded instruction. Scaffolded instruction involves providing strategies, such as models, examples, clues, and supports while students are in the process of learning new skills, and then reducing the level of support as students gain skills (Branford, et al., 2000; Tinto, 1997; Vygotsky, 1978).

The third instructional strategy used in this study was formative feedback. Providing students with timely, specific, detailed information about how to improve a specific skill, such as writing a cohesive paragraph, has been shown to be an effective method for supporting student growth in the targeted area (Moreno, 2004).

Research Questions

In order to address the issue of weak academic writing skills among Hispanic college students, this dissertation study analyzed the effectiveness of the combined use of cooperative learning, scaffolding, and formative feedback in helping students to improve their academic writing skills. The research questions that were addressed in this study are:

1. Are the academic writing skills of college students at a Hispanic serving university in south Texas improved when a cooperative learning teaching model combined with scaffolded instruction and formative feedback is used?
2. What are the perceived academic benefits of having participated in a college class where a cooperative learning teaching model combined with scaffolded instruction and formative feedback was used?
3. Are students' perceptions of the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback different for college students at a Hispanic serving university in south Texas whose first language was Spanish when they entered kindergarten or first grade in the United States, students whose first language was English when they started school in kindergarten or first grade in the U. S., and students who immigrated to the United States after several years of adequate formal schooling in another country?

Organization of the Chapter

In this chapter, the setting, population, and study sample are described. Next, the data that was collected to answer the three research questions addressed in this study is presented. To answer the first research question about whether the combined use of cooperative learning, scaffolded instruction and formative feedback improves student writing, data was gathered using a rubric to compare students' first and last writing samples. To answer the second research question about students' perceptions of the effectiveness of strategies used to improve academic writing, quantitative and qualitative survey data and qualitative interview data were used. The survey data included both a Likert scale about students' perceptions of cooperative learning and open-ended questions about the various instructional strategies used in this study. Structured

interviews with a representative sample of students from different language and educational backgrounds were used to gather more in-depth information about students' perceptions about the instructional techniques that were used in this study. The third research question used the data from both the interviews and the open-ended survey questions and compared the responses of students from different language and educational backgrounds.

Setting and Population

. The university where this study was conducted is a Hispanic serving institution located near the Texas–Mexico border. The population at this university is ninety-one percent Hispanic. The participants in this study were students from two sections of a teacher preparation class that were taught by the researcher in the spring 2011 semester. All of the students in these classes were invited to participate in this study. Fifty students agreed to participate, but only forty-six of the participants completed the course. Interviews were conducted with nine participants in August and September of 2011.

Ninety-one percent of the participants who completed the study were Hispanic, and nine percent were Caucasian. Data from all of the students who participated in this study was included in the analysis regardless of the participant's ethnic background. The participants ranged in age of 18 to over 45 years old. Many of the students who participated in this study were non-traditional college students. Over fifty percent of the participants were older than the average age for students who are pursuing a bachelor's degree. In addition, some of the participants who were in the traditional age range for college students were raising children and/or working full-time while taking college classes.

Data Collection

Quantitative and qualitative data were gathered in this study. Two types of quantitative data were gathered. The first type of quantitative data that was gathered was a comparison of students' first writing sample with their last writing sample. The second type of quantitative data that was obtained came from a pre-test and post-test Likert style survey on students' beliefs about cooperative learning. Two types of qualitative data were also gathered. Qualitative data was acquired from a post-test survey containing four open-ended questions on the participants' perceptions about each of the instructional techniques that were used in this study. The second type of qualitative data that was gathered was from interviews with nine of the participants in this study.

Quantitative Data

Two types of quantitative data were collected in this study. The first type of quantitative data that was collected was a comparison of the participants' first writing sample of the semester with their last writing sample. These article reviews were analyzed with two rubrics that used a five point scale. One rubric was used to measure the quality of their writing and the other rubric was used to assess how well they used APA 6 formatting guidelines.

The second type of quantitative data that was collected was a Likert style pre- and post-test survey that was completed by forty-one of the forty-six participants to obtain information about their beliefs about cooperative learning. Five of the participants in this study were absent from class on the day that the pre-test survey was administered. The quantitative data analysis was limited to a comparison between the pre and post-test survey responses of those participants who responded to both the pre and post-test Likert style survey, so that the amount of change in their responses could be analyzed. Paired sample means and standard deviations were

calculated. Paired sample t-tests and effect size using Cohen's d were calculated to compare the writing samples and quantitative survey results. Effect size was determined to represent the data that was gathered most clearly, so effect size was chosen to represent the quantitative data that was collected in this study.

Qualitative Data

All of the post-test responses to the open-ended questions were included in the qualitative data analysis, regardless of whether the participant responded to the quantitative pre-test survey. The qualitative post-test survey consisted of four open-ended questions about the participants' perceptions about the instructional techniques used in this study. In addition, interviews were conducted with nine participants who were representative of the student population in this study.

Four participants who started school in the U. S. in kindergarten or first grade speaking Spanish were interviewed. Three interviewees started school in the U. S. in kindergarten or first grade speaking English, and two of the students who were interviewed immigrated to the United States between fifth and ninth grade speaking Spanish.

Open-ended survey questions. Forty-six participants responded to the open-ended questions on the post-test survey. This information was used to learn more about participants' perceptions of the different instructional techniques used to support student growth in academic writing from a phenomenological perspective. Participants' responses to each question were transcribed into a single document. Next, a taxonomic analysis of the responses to each question was completed to identify the semantic relationships and major themes. Taxonomic analysis organizes information on the basis of a single semantic relationship and identifies how each subset of data is related to the whole (Spradley, 1980).

Interviews. Structured interviews were conducted with nine of the forty-six participants in this study. Each interview was recorded, transcribed, coded and analyzed to identify major themes. Interviews were conducted to obtain more in-depth information about students' perceptions of how the different instructional techniques that were used in this study had impacted their overall experience with the class.

Findings

Research Question One: Improvement in Academic Writing

Data was gathered on the differences in the analysis of participants' first and last individually written article reviews using two rubrics. This data was used to answer the first research question, "Are the academic writing skills of college students at a Hispanic serving university in south Texas improved when a cooperative learning teaching model combined with scaffolded instruction and formative feedback is used?" The participants each wrote three individual reviews of articles from academic journals outside of class and two collaborative reviews of academic journal articles in class. Prior to writing the first article review, participants were assigned an article to review. They were provided with one example of a well-written article review, and they were given a brief guide to writing using the format in the Publication Manual of the American Psychological Association (APA), Sixth Edition.

During the rest of the course the participants received detailed written feedback on their first article review. Several lessons were taught on paragraph cohesion and on citing sources within the text and in the reference section of a paper prior to when they wrote a second article review. A reference librarian gave a presentation to the participants about how to use library databases to find peer-reviewed academic journal articles on various topics. Participants found

articles for their second article review in class with the support of their instructor. After participants wrote their second article review, they worked with partners to provide each other with oral feedback on their article reviews. The participants had an opportunity to make corrections in class to the second article review. The instructor provided written feedback on the participants' second individually written article review, but data was not collected on how the participants scored on their second article review. Participants were required to select an appropriate article on an assigned topic outside of class for their third article review.

The participants worked in groups of three to write two reviews of short academic journal articles in class. The participants also gave a short oral presentation about the articles that they reviewed in class. They received feedback on their collaboratively written article reviews, but data was not collected on these reviews. The participants participated in a variety of cooperative learning activities designed to help them improve their academic writing skills and their ability to produce documents using an APA 6 format through-out this semester long study. They were provided with an array of scaffolds to support improvement in academic writing, and they received formative feedback on each writing sample that they produced.

Data was gathered comparing the participants' third, individually written, article review with their first individually written article review. The participants' writing scores in the areas of content, organization, style, and mechanics were analyzed with the rubric shown in Figure 7. The participants' ability to produce an APA 6 style cover page, in-text citations, and final references on their third article review were compared with their scores in these areas on their first article review. The rubric that was used to analyze the participants' ability to use APA 6 formatting guidelines is shown in Figure 7. These comparisons between the participants' first and final article reviews were used to answer the first research question.

Figure 7: Writing Analysis Rubric

Skill	Level of Achievement				
	1	2	3	4	5
Content	Topic is poorly developed, support is only vague or general; ideas are trite; wording is unclear, simplistic; reflects lack of understanding of topic and audience; information irrelevant to topic/argument is frequent; extensive repetitiveness; excessive lack of focus on topic or argument.		Topic is evident; some supporting detail; wording is generally clear; reflects understanding of topic and audience; some digressions (information inaccurate or not relevant to the primary topic/argument) are included; some unnecessary repetitiveness is evidenced; some problems with clarity of thought and lack of focus on the topic or argument. Parts of the topic are not addressed.		Topic/thesis is clearly stated and well developed; all parts of the topic are addressed; conceptually sound; wording/details is/are accurate, specific, and relevant to the topic & audience; no digressions are evidenced; free of unnecessary repetitiveness; evidence of effective, clear thinking and depth of subject area knowledge
Organization	Most paragraphs are rambling and unfocused; no clear beginning or ending paragraphs; inappropriate or missing sequence markers.		Most/many paragraphs are focused; discernible beginning and ending paragraphs, some appropriate sequence markers.		Paragraphs are clearly focused and organized around a central theme; clear beginning and ending paragraphs; appropriate, coherent sequences and sequence markers.
Style	Inappropriate or inaccurate word choice; repetitive words and sentence types; inappropriate or inconsistent point of view and tone.		Generally appropriate word choice; variety in vocabulary and sentence types; appropriate point of view and tone.		Word choice appropriate for the task; precise, vivid vocabulary; variety of sentence types; consistent and appropriate point of view and tone.
Mechanics	Frequent non-standard grammar, spelling, punctuation interferes with comprehension and writer's credibility. In-text and ending documentation are not clear, inconsistent, and incomplete; little cited information is incorporated into the document...		Some non-standard grammar, spelling, and punctuation; errors do not generally interfere with comprehension or writer's credibility. In-text and ending documentation are generally clear, consistent, and complete; cited information is somewhat incorporated into the document		Standard grammar, spelling, punctuation; no interference with comprehension or writer's credibility. In-text and ending documentation are clear, consistent, and complete; cited information is incorporated effectively into the document.

The means, standard deviations, and standard error means were calculated for each of the areas being evaluated in the participants' writing samples. Participants' first and last writing samples were compared to determine whether any significant changes occurred. The comparisons for each of the areas that were analyzed with the rubric shown in Figure 7 are shown in Table 12.

Table 12:

Comparison of Mean Scores of First and Last Writing Samples

		Mean	Std. Deviation	Standard Error Mean
Pair 1	Content 1	3.811	.5466	.0815
	Content 3	3.900	.8434	.1257
Pair 2	Organization 1	4.333	.9535	.1421
	Organization 3	4.489	.7268	.1083
Pair 3	Style 1	3.600	.7508	.1119
	Style 3	4.022	.7830	.1167
Pair 4	Mechanics 1	3.578	.5431	.0810
	Mechanics 3	3.722	.7801	.1163

The means and standard deviations were used to calculate the effect size of the interventions used on each area of academic writing that was evaluated. Cohen's *d* was used to determine the effect size in each area. Moreno (2004) recommends the following ranges for determining how strong of an effect size exists: 0 - 0.20 = very small effect; 0.21 – 0.49 = small effect; 0.50 – 0.79 = medium effect, and 0.80 and over = a large effect (Moreno, 2004). Table 9 outlines the effect sizes that were calculated when comparing participants' scores on their last writing sample with their scores on their first writing sample in each of the areas that were evaluated using the rubric shown in Figure 7 are shown in Table 13.

Table 13:

Effect Sizes for Each Area of Academic Writing Assessed

Skill Area Assessed	Effect Size	Strength of Effect Size
Content	.13	Very Small Effect
Organization	.19	Very Small Effect
Style	.55	Medium Effect
Mechanics	.22	Small Effect

$$d = M_1 - M_2 / \sigma_{\text{pooled}} \quad \sigma_{\text{pooled}} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]}$$

A medium positive effect size was observed in the areas of style. A small positive effect size occurred in the area of mechanics. A very small positive effect size was seen the areas of content and organization.

In addition, each paper was analyzed in the areas of the cover sheet, in-text citations, and references, comparing them to a sample article review and information from the handout on using an APA 6 format that was provided to the participants at the beginning of the study. The cover sheet, in-text citations, and references were analyzed. The rubric that was used to analyze these items is shown in Figure 8. Each area of analysis was evaluated using a five point scale, with a score of one indicating that the writing sample was very weak in the area being analyzed and a score of five indicating that the writing sample fully exemplified the characteristics that were being evaluated. A score of two was used when the writing sample displayed some of the characteristics described for a score of one and some characteristics described for a score of three. A score of four was given when the writing sample contained some of the characteristics described for a score of three and some characteristics described for a score of five.

Figure 8

Scoring criteria for Cover Sheet, In-Text Citations, and References Using APA Format

	1	2	3	4	5
Cover Page	No cover page	Cover page is significantly different from the model	Cover page is moderately different from the model	Cover page contains minor differences from the model	Cover page follows the model exactly
In-Text Citations	No in-text citations	In-text citations are significantly different from the APA 6 criteria	In-text citations are moderately different from the APA 6 criteria	In-text citations contain minor differences from the APA 6 criteria	In-text citations follow the APA 6 criteria exactly
References	No References at the end of the article review	References are significantly different from the APA 6 criteria	References are moderately different from the APA 6 criteria	References contain minor differences from the APA 6 criteria	References follow the APA 6 criteria exactly

The means, standard deviations, and standard error means were calculated for each of the areas being evaluated in the participants' writing samples. Participants' first and last writing samples were compared to determine whether any significant changes occurred. The comparisons for each of the areas that were analyzed are shown in Table 14.

Table 14

Comparison of Mean Scores of First and Last Writing Samples on APA Format

	Mean	Std. Deviation	Standard Error Mean	
Pair 1	Cover 1	3.978	1.0764	.1605
	Cover 3	4.689	.4682	.0698
Pair 2	In-text 1	2.844	1.1069	.1650
	In-text 3	3.511	1.0140	.1512
Pair 3	References 1	2.778	1.3295	.1982
	Reference 3	3.733	.9630	.1435

The means and standard deviations were used to calculate the effect size of the interventions used on each area of academic writing that was evaluated. Cohen's *d* was used to determine the effect size in each area. The effect sizes that were calculated by comparing participants' scores on their last writing sample with their scores on their first writing sample in each of the areas that were evaluated using the rubric shown in Figure Eight are shown in Table 15.

Table 15

Effect Sizes on APA Format

Skill Area Assessed	Effect Size	Strength of Effect Size
Cover Page	.92	Large Effect
In-text Citations	.61	Medium Effect
References	.83	Large Effect

$$d = M_1 - M_2 / \sigma_{\text{pooled}} \quad \sigma_{\text{pooled}} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]}$$

Significant gains were observed between the participants first and last writing sample in their ability to produce documents in APA format. Large positive effect sizes were noted in the areas of cover page and references. A medium positive effect size was seen in the area of in-text citations.

Research Question Two: Student Perceptions of Teaching Strategies

The second research question was “What are the perceived academic benefits of having participated in a college class where a cooperative learning teaching model combined with scaffolded instruction and formative feedback was used?” Data was gathered on students’ perceptions about the effectiveness of the three instructional strategies that were used in this study to help students to improve their academic writing skills: cooperative learning, scaffolded instruction, and formative feedback. A previously validated categorical survey on cooperative learning provided quantitative data about how students’ perceptions about cooperative learning changed after they participated in the course. Qualitative survey and interview data was collected about students’ perceptions about the effectiveness of each of the instructional techniques. Pseudonyms were used when reporting interview responses.

Cooperative learning survey. Identical pre and post-test surveys containing fifteen questions were administered to determine participants' beliefs about cooperative learning and to find out whether the class experience changed their perceptions about cooperative learning. All of the participants had been introduced to the components of cooperative learning during their first education class, but many of the participants had not experienced a class that actively used a cooperatively learning model. Forty-one of the forty-six participants, who completed the first and last writing sample, also completed the pre-test survey and the post-test survey.

Participants rated their beliefs about cooperative learning based on a five point scale, with one indicating that they strongly disagreed, two indicating that they disagreed, three indicating that they were neutral, four indicating that they agreed, and five indicating that they strongly agreed. Means, standard deviations, and standard errors of measure were calculated for each question on the pre-test survey and the post-test survey. Table 16 shows descriptive statistics on the frequency of responses that were selected for each choice in the pre-and post-test cooperative learning surveys.

Table 16:

Comparison of Responses to the Pre and Post-Test Cooperative Learning Survey

		Mean	Std. Deviation	Std. Error Mean
Pair 1	Pretest Effective	4.12	.458	.072
	Posttest Effective	4.51	.506	.079
Pair 2	Pretest Participation	4.34	.617	.096
	Posttest Participation	4.66	.480	.075
Pair 3	Pretest Communication	4.29	.512	.080
	Posttest Communication	4.59	.499	.078
Pair 4	Pretest High Ability	4.02	.612	.096
	Posttest High Ability	4.34	.656	.102
Pair 5	Pretest Average Ability	4.17	.629	.098
	Posttest Average Ability	4.39	.586	.092
Pair 6	Pretest Low Ability	4.20	.813	.127
	Posttest Low Ability	4.32	.650	.101
Pair 7	Pretest Efficient	4.29	.559	.087
	Posttest Efficient	4.39	.586	.092
Pair 8	Pretest Study Group	3.71	.782	.122
	Posttest Study Group	4.12	.842	.132
Pair 9	Pretest Fair	3.44	.867	.135
	Posttest Fair	3.90	.970	.151
Pair 10	Pretest Prefer	3.27	1.073	.168
	Posttest Prefer	3.66	1.015	.159
Pair 11	Pretest Like	3.80	.901	.141
	Posttest Like	4.15	.691	.108
Pair 12	Pretest Jigsaw Improves Learning	3.38	.925	.146
	Posttest Jigsaw Improves Learning	3.70	.823	.130
Pair 13	Pretest Expert	4.07	.685	.107
	Posttest Expert	4.22	.571	.089
Pair 14	Pretest Listen	4.15	.615	.096
	Posttest Listen	4.39	.586	.092
Pair 15	Pretest Understanding	4.10	.625	.098
	Posttest Understanding	4.29	.602	.094

Cooperative learning and its educational benefits is introduced as part of the curriculum in the first education class that is taken at the university where this study was conducted. All of the participants who participated in this study had already taken the first class in the series of education classes required for teacher certification in Texas. The majority of participants either agreed or strongly agreed with each of the questions in the cooperative learning survey on the post-test, and most of the questions on the pre-test. Two questions on the pre-test had a majority of participants who responded that they were neutral about the question. These questions were: “I usually like to work in groups better than I like to work alone,” and “Working in a jig-saw helps me learn assigned material.” The majority of respondents reported that they agreed or strongly agreed with the question about working in groups and jigsaw activities helping them learn assigned material on the post-test. A small percentage of the participants disagreed or strongly disagreed with some of the questions in the survey on both pre-test and the post test.

The means and standard deviations were used to calculate the effect size of the change in responses to each question on the cooperative learning survey from the pre-test to the post-test. Cohen’s *d* was used to determine effect size for each question. The effect size for the change in response from the pre-test to the post-test is shown in Table 17.

Table 17:

Effect Sizes for Response Changes from the Cooperative Learning Survey Pre-Test to Post-Test

Survey Question	Effect Size	Strength Of Effect Size
I believe that cooperative learning is an effective instructional technique in most content areas.	.81	Large Effect
I believe that cooperative learning increases student participation in learning activities.	.58	Medium Effect
I believe that cooperative learning improves student communication and decision making skills.	.59	Medium Effect
I believe that cooperative learning encourages and improves the performance of high ability students.	.50	Medium Effect
I believe that cooperative learning encourages and improves the performance of average ability students.	.36	Small Effect
I believe that cooperative learning encourages and improves the performance of low ability students.	.16	Very Small Effect
I believe that using cooperative learning is an efficient teaching technique.	.17	Very Small Effect
I plan to increase my use of cooperative learning by organizing a cooperative study group.	.50	Medium Effect
Rewarding individual performance based on group success is an equitable method of grading.	.50	Medium Effect
I usually like to work better in groups than I like to work alone.	.37	Small Effect
I like to participate in cooperative activities.	.44	Small Effect
Working in a jigsaw helps me to learn the assigned material.	.37	Small Effect
As an "expert" for part of the material we need to learn, makes me prepare more carefully.	.24	Small Effect
In a jigsaw activity I listen carefully to my peers to learn the material that they are "experts" in.	.40	Small Effect
In a jigsaw activity I gain an understanding of the material through discussion with my peers.	.31	Small Effect

$$d = M_1 - M_2 / \sigma_{\text{pooled}} \quad \sigma_{\text{pooled}} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]}$$

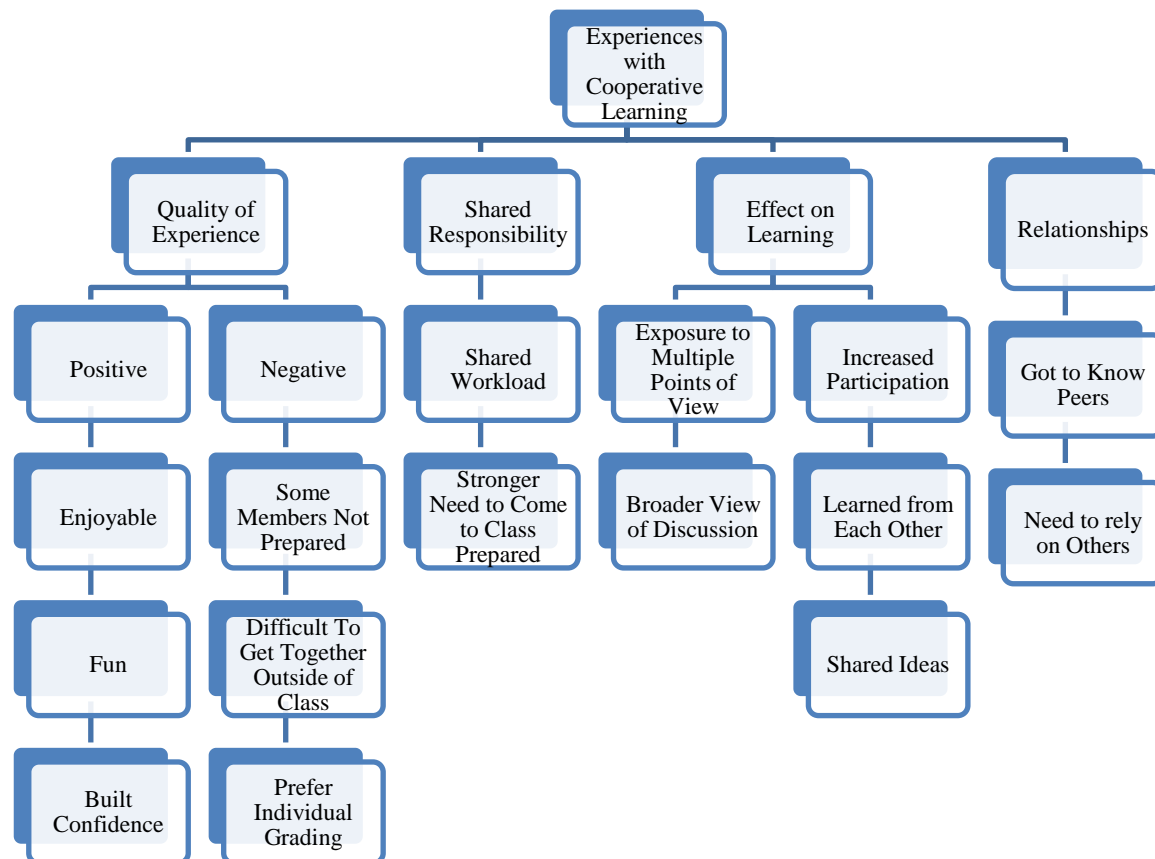
Positive effect sizes ranging from a small positive effect to a large positive effect were seen in students' responses about their beliefs concerning the effectiveness of cooperative learning. Medium positive effect sizes were observed in the change in students' perceptions about cooperative learning increasing participation and improving communication and decision-making. There were also medium positive effect sizes on questions about improving the performance of students with high ability levels, the fairness of grading individuals based on group performance, and the likelihood of students' development of a cooperative learning study group.

Small positive effect sizes were seen on questions about jigsaw activities, the effectiveness of cooperative learning on the performance of students with average ability, student preferences for group work compared with individual work, and students' level of enjoyment when participating in cooperative activities. Very small positive effects were noted from the pre-test to the post test in the areas of the efficiency of cooperative learning and the effect of cooperative learning on the performance of students with low ability.

In order to obtain more in-depth information about students' perceptions about cooperative learning, participants responded to the open-ended post-test survey question: "Describe your experiences in cooperative learning groups in this class." The participants' responses focused on four major themes: the quality of their experiences, shared responsibility, the effect on learning, and relationships with classmates. The themes that emerged about students' experiences with cooperative learning are represented in Figure 9.

Figure 9:

Students' Survey Responses about Cooperative Learning



Quality of experience. In the responses to the open ended question about cooperative learning the participants reported both positive and negative experiences with cooperative learning. The positive aspects centered on enjoying the experience, and increased feelings of confidence. Forty-one comments focused on positive aspects of cooperative.. Some comments that were made regarding the positive aspects of cooperative learning included: “It has been a good experience being in cooperative learning groups. I learned a lot from others.” “They were

great and it helped me to understand the activity a lot better.” “It was fun yet helpful. I enjoyed hearing everyone’s opinion and learning from them as well.”

Five student comments contained a negative component of some kind, usually due to partners being unprepared or off track. Other negative comments reflected the difficulty of coordinating time to meet outside of class, and preferring individual grading. Comments about negative experiences included: “I liked the cooperative learning groups, but I liked to get graded individually because I believe my grade would be higher.” “My first experience was neutral. One of my partners never seemed prepared and was often short on time. If I hadn’t been so nice, I might have said something, but I didn’t.” “It was not very successful. The girls never had time to meet. So we did our own parts separately.” “I really enjoyed working in small groups in my class, but some of my peers do not focus on the subject. I had to redirect them a couple of times, but at the end, we completed the assigned activity.”

Shared responsibility. The second category consisted of eight responses focused on shared responsibility, shared workload, and a stronger need to come to class prepared. The positive responses about shared workload included: “The load becomes easier and things seem to get done faster. “It helps me get to know what others think and how much they know about the topic. The negative comments included: “My first experience required me to be the team leader. Eventually, I had to arrange group meetings, e-mail necessary materials, and coordinate the presentation by myself. At times, my group members were unresponsive with feedback. It improved though.” “Depending on others was not always good.”

Effect on learning. Nine responses focused on how cooperative learning improved learning.. Comments about how cooperative learning affected the learning experience included exposure to multiple points of view, getting a broader view of the discussion, increased participation,

learning from each other, and sharing ideas. Some examples of student responses that focused on how cooperative learning affected the learning experience include: “Cooperative learning groups are helpful in the sense that you share what you have learned and discuss in a group, what you didn’t understand.” “Someone can teach it to you so that you may learn.” “Everybody imparts their knowledge to the task.” “It helps me get to know what others think and how much they know about the topic.” “Being in a group learning environment helps me understand the subject or article that we are discussing better.” “Everybody gives their ideas and thoughts, respecting each others’ input.”

Relationships with peers. Five responses focused on relationships and included comments about getting to know peers. They included: “It has helped me get to know my peers and become more involved in discussions.” “I loved it! I think this is a good method for students to interact more and learn new ideas.” “Although I have never been very social, the individuals I cooperated with were pleasant to interact with.” “It was a good experience because I was able to know my classmates and it helped me to participate in learning activities.” “You get to know more people and talk about the classes.”

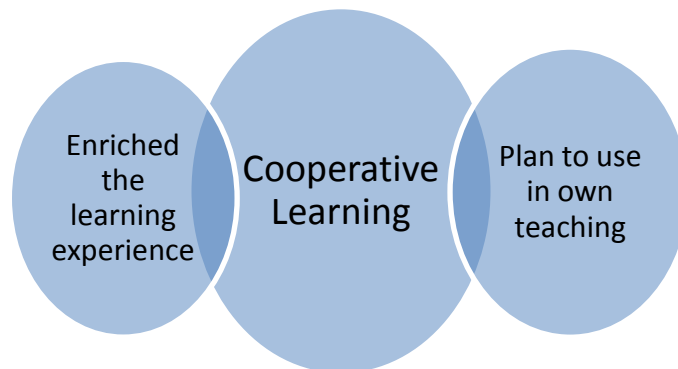
Interview Responses about Cooperative Learning

In addition to the information that was obtained from the open-ended survey questions about cooperative learning, several interview questions were used to gather additional information about students’ perceptions of cooperative learning. Nine students from different educational and language backgrounds were interviewed. Structured interviews were conducted individually. These interviews were recorded, transcribed, and analyzed for major themes. The interview questions are shown in Appendix D. Pseudonyms are used throughout the reporting of interview data.

The major themes that emerged from the interviews included plans to use cooperative learning in their own classes when they were teachers and feelings that cooperative learning enriched the learning experience. The themes that emerged about cooperative learning during the interviews are shown in Figure 10.

Figure 10

Cooperative Learning Themes from Interviews



Plan to use in own teaching. Several of the students who were interviewed reported that they plan to use cooperative learning activities in their own classes when they are teachers. Carlos stated, "I want to plan interactive activities for them. I know that when I was in elementary there wasn't much interaction in math. You would just sit at your desk and do your work. There are really a lot of activities that you can do with them using manipulatives." Sandra responded, "Yes, the group problem solving activities and group projects. I want to give them thinking activities and writing activities. This is something that I think will help them with their writing skills. They will also get to know each other." Julie said, "Group interaction. Having the

kids speak in front of the class, and having the kids express what they know in different ways, not necessarily on a piece of paper.”

Enriched the learning experience. The interviewees reported that they enjoyed the cooperative learning activities that were done in the class where this study took place and would have liked even more interactive activities. Julie said, “I liked the interactive activities. I liked the lectures too, but I wouldn’t mind if the whole class was activities.” Juan responded, “I liked the class discussions. It keeps everybody on their toes when they have to respond to questions or give their opinion.” Carlos stated, “I loved it. I really enjoyed all of the interaction. I had never really experienced a class like that. In music appreciation, there was a little interaction, but not like in that class. It was an exciting way of teaching and learning that was fun and I learned a lot.”

Five types of cooperative activities were used throughout this study. These activities were: collaborative writing, peer reviews, group presentations, jig-saws, and think-share were the types of activities that were used. Students’ impressions about the effect of these activities on their academic writing skills are described in the following sections.

Collaborative Writing

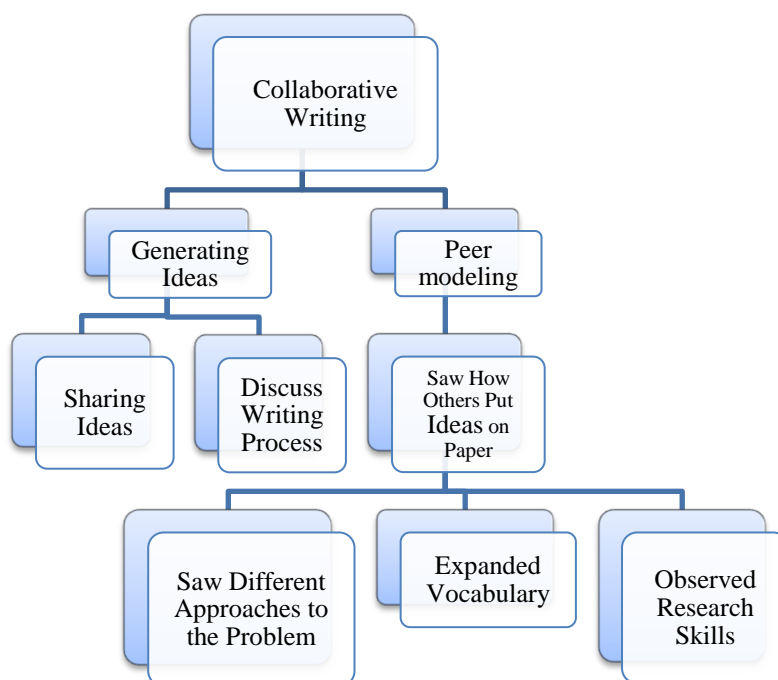
Collaborative writing was used extensively in this study. Qualitative information was obtained about students’ perceptions of their experiences with collaborative writing through responses to an open-ended survey question and through interview responses. All of the participants reported that their experiences with collaborative writing in class were positive.

The second open-ended question that participants responded to on the survey was: “In what ways did working on writing skills in cooperative learning groups help you to improve your writing skills?” The participants’ reported that working with peers in collaborative writing

groups helped them in two ways: generating ideas, and modeling by peers. The analysis of students' perceptions about their experiences with collaborative writing is shown in Figure 11.

Figure 11:

Students' Experiences with Collaborative Writing



Generating ideas. In the area of generating ideas, the participants indicated that they shared ideas with each other and discussed the writing process. Six comments focused on help with generating ideas. These included: “It helps because you get more ideas on what to write. I feel that you can’t really remember every point or detail made and working in groups really helps.” “I became more open minded and considered all options, opinions, and beliefs.” “I have a more complex perspective enabling me to write more as an expert rather than stating an opinion.” “I improved my writing skills, especially my APA format. Working in groups helps. They gave me ideas and I did the same.”

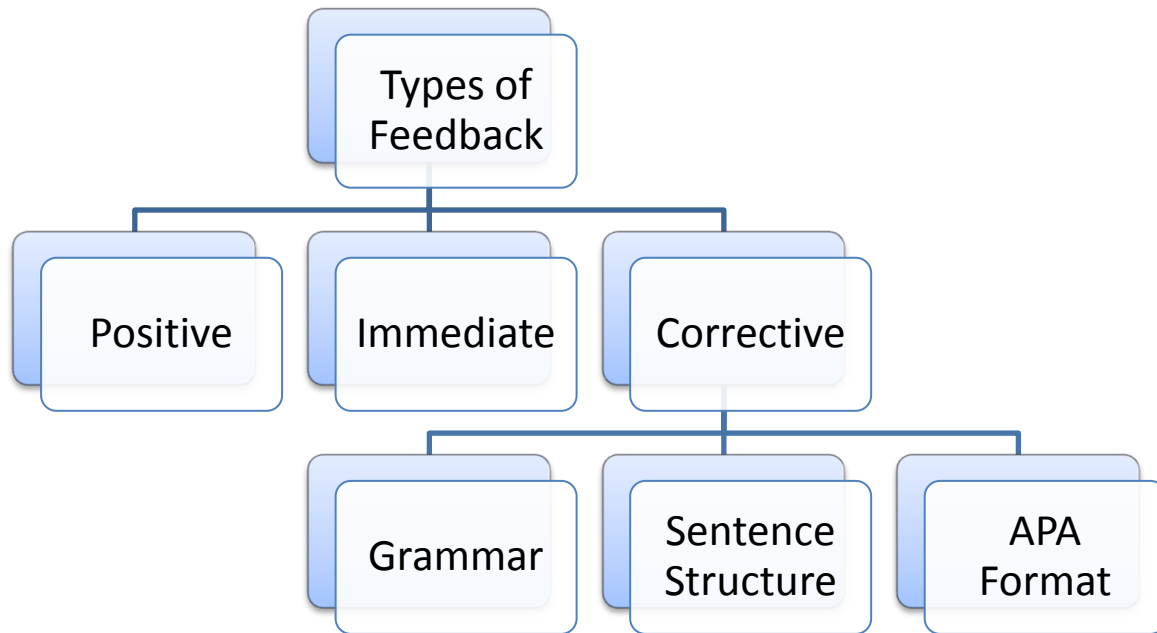
Peer modeling. Participants reported that working in collaborative writing groups helped them because they saw how other people put their ideas on paper. They considered the opinions of others and learned new vocabulary while working with their peers. Eight comments were related to peer modeling. They included: “We had the chance to review each other’s written assignments and had different approaches which helped me to improve.” “Sometimes hearing other people’s words would help me in how to write and summarize better.” “Writing in groups was helpful because you hear and see what others write and see how they explain it and write it down. I think it improves your way of writing.”

Peer Review

Another cooperative learning activity that was used in this study to support academic writing skills was peer review. Participants reported that they received positive feedback, immediate feedback, and corrective feedback from their peers. The corrective feedback that they received from their peers focused on grammar, sentence structure, and APA format. Figure 12 shows the types of feedback that participants identified as helpful in improving their academic writing.

Figure 12

Types of Feedback Received during Peer Reviews



Twenty-two comments discussed peer feedback that participants received from their peers. These included: “I would get evaluations that I wouldn’t have. Others’ compliments and criticism were very enlightening.” “Having my peers proofread my work helped me view my mistakes.” “I was able to get positive feedback on my work.” “Everyone catches mistakes, so when you share your paper with someone else, it’s great to have someone find them for you. It helps to fix them.”

During the interviews, four people included comments about the peer reviews being a helpful process in improving students’ writing skills. Mary said, “Helping one another in the classroom and peer reviews helped. I know that one time we had a little contest to see who did the most correct cover page. That helped a lot. We were all trying to help each other.” Juan replied, “The feedback from everybody and seeing different people’s points of view as to how

they understood different aspects of the assignment helped me.” Julie stated, “Working with partners to review each other’s papers and when we reviewed articles in groups in class gave me ideas. The examples were also helpful.”

Group Presentations

Group presentations were another cooperative learning technique used in this study. Although group presentations were not discussed during the interviews, five participants responded to open-ended qualitative survey questions that they found giving group presentations about the articles that they had reviewed helpful in improving their writing skills. These comments included: “Presentations helped me find the way of expressing myself better and more clearly.” “Mostly the ones where we had to make a presentation.” “For example, when we had to present in the class, we discussed the article, we wrote some important facts, and we reviewed each other’s work. “Writing article reviews and making presentations.” In addition, one of the students who was interviewed commented, “Doing group presentations about the articles helped.”

Jigsaw and Think-Share Activities

Jigsaw and think-share activities were other cooperative learning techniques that were used throughout this study. Three participants’ response to the qualitative survey questions indicated that they found jigsaw activities helpful in increasing their understanding of the articles that they read, which enabled them to write better article reviews. “We did a lot of “jigsaw” activities and a lot of group activities in the class, and really they had everyone involved and interested.” “It was great. Everyone participated and we learned a lot from one article by doing a jigsaw.” “The jigsaw activities, it helped me when we shared our ideas. I liked the think-share activities.” Jigsaw and think-share activities were not mentioned during interview responses.

Conclusions about Cooperative Learning

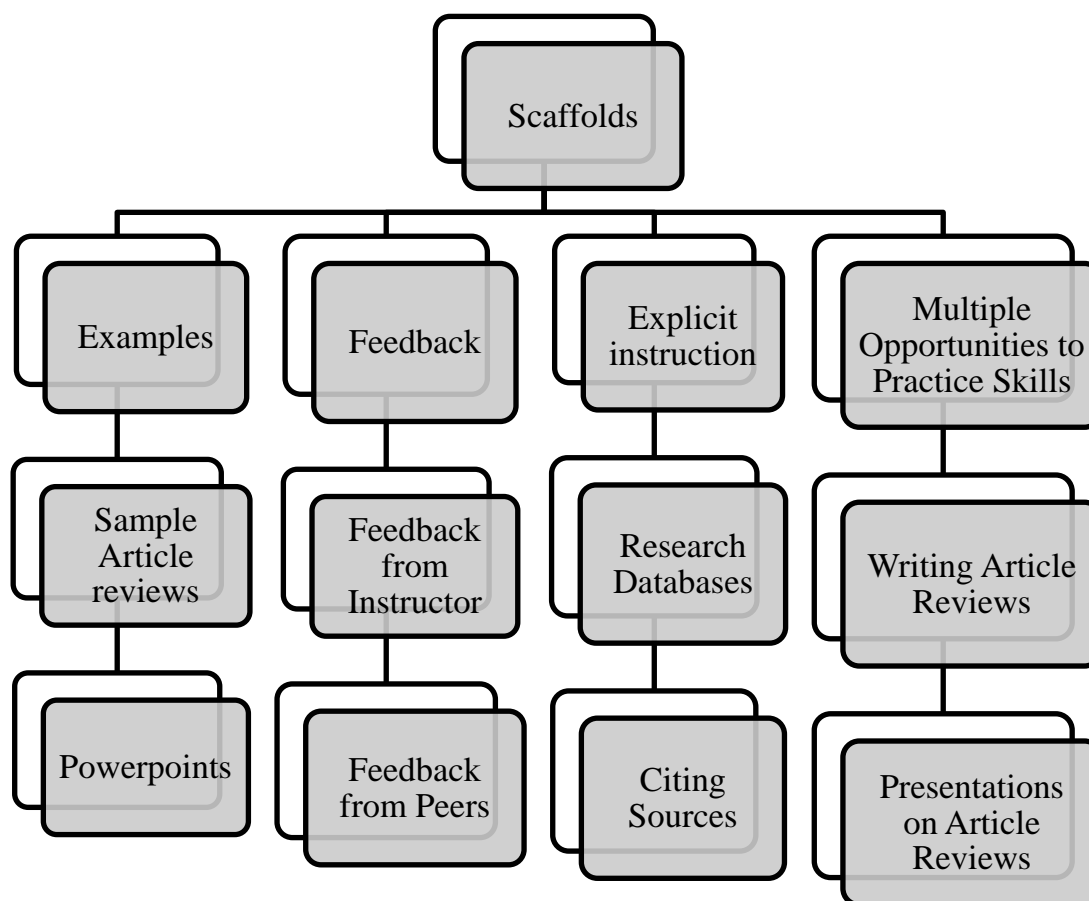
Participants' responses to open ended survey questions and structured interviews focused on four major types of cooperative learning activities that they found helpful in improving their academic writing skills: collaborative writing, peer reviews, group presentations, and jigsaw activities. Their responses about collaborative writing focused on two major areas: peer modeling and generating ideas. Students reported that peer reviews helped them by providing immediate positive and corrective feedback.

Scaffolded Instruction

The second instructional strategy used in this study was scaffolded instruction. An open-ended survey question and an interview question were used to gather information about student perceptions about the scaffolded instruction that was provided during this study. These questions were used to identify the types of scaffolding that students found helpful in improving their writing. An analysis of each of these questions follows.

The open-ended survey question used to gather information about students' perceptions about the effectiveness of the scaffolded instruction was: "Which activities, examples, and opportunities to practice specific writing skills in class helped you to improve your writing skills? How?" Four major components of the class were identified as helpful in improving their writing skills: examples, feedback, explicit instruction, and practicing skills. Figure 13 shows the themes that were identified regarding scaffolding that helped students to improve their writing skills.

Figure 13: Scaffolds that Improved Writing Skills



Examples. Five participants reported that the sample article reviews and/or the Power Points on academic writing were helpful. Student responses included: “I found the Power Points and sample article reviews helpful.” “The examples and Power Points helped a lot. I kept all of them.”

Feedback. Seven participants reported that they found the feedback from the instructor and their peers helpful. Some example student responses were: “Yes, the feedback was helpful. It helped me not to make the same mistakes again.” “The feedback that was given to me about my writing helped me because every time I needed to improve on something, I would work on it

on the next paper.” “It allowed me to see simple mistakes I made, and gain a new perspective on how to word things.”

Explicit instruction. Five participants reported that the explicit instruction on how to use the library’s research databases, citing sources, and producing documents in APA format helped them to improve their academic writing skills. Comments about explicit instruction included: “I learned how to use the library data bases.” “When you asked us to do a cover page for our paper, you helped us by explaining what we did wrong and helped us do it correctly.” “When the teacher showed us on the projection screen how to do running heads, etc.”

Multiple opportunities to practice skills. Many students reported that the process of practicing their writing and presentation skills helped them to improve in the targeted skills. Sixteen student comments indicated that the process of writing article reviews helped them to improve their writing and three participants reported that giving presentations about the articles that they reviewed helped them to improve their writing skills. Comments related to the article reviews included: “Article reviews helped with my other classes because I had other research assignments due.” “Repeating the skills and talking about them helped me.” “By reading and summarizing an article, I was able to pay attention to the important details of an article. When I used Venn diagrams, I was able to compose/contrast completely opposite ideas.”

The types of scaffolding that students indicated that they found helpful were the examples that were provided, feedback from their peers and the instructor, explicit instruction, and multiple opportunities to practice the skills associated with writing an effective article review. The examples that the participants reported that they found helpful were sample article reviews and Power Points about different aspects of academic writing. The explicit instruction

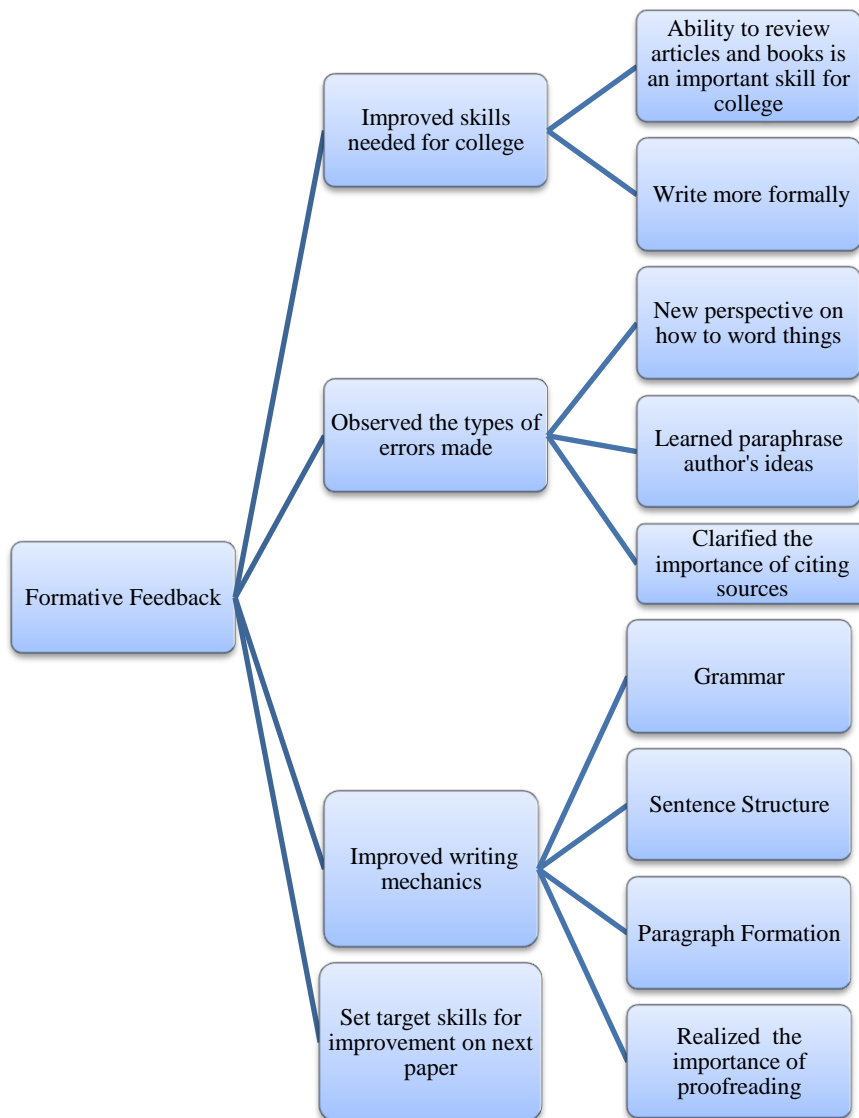
that the participants identified as helpful were instruction about using library databases and instruction about citing sources using an APA format.

Formative Feedback

The third instructional technique that was used in this study was formative feedback. Formative feedback is timely, explicit, non-punitive feedback from the instructor. Students' impressions about the formative feedback that they received from the instructor were obtained using the open-ended survey question: "Was the feedback that you received about your writing helpful? If yes, in what ways did the individualized feedback that you received about your writing help you to improve your writing skills?" Forty-four responses to this question indicated that the formative feedback that they received from the instructor was helpful. Two participants reported that they did not find the formative feedback that they received helpful in improving their writing skills. An analysis was done of the responses about students' perceptions of the instructor feedback that they received during this study. This analysis is explained in the next section.

Four major themes became apparent from analyzing the participants' responses to this survey question. These themes were that the individualized feedback that they received from the instructor helped them to improve skills that they needed for college. It allowed them to see the types of errors that they were making. It helped them to improve their writing mechanics, and it aided them in targeting skills for improvement on the next paper. A taxonomic analysis of student perceptions about the individualized feedback that they received from the instructor is shown in Figure 14.

Figure 14: Formative Feedback from the Instructor



Improved skills needed for college. Participants reported that the feedback that they received helped them to improve skills needed for college including the ability to review articles and books effectively and write in a more formal register. Three comments focused on how the feedback that was received would help them to become more successful in other classes. This is exemplified by the following comments. “Yes, being knowledgeable in article reviews is greatly needed throughout our college careers.” “It helped me with knowing how to write article

reviews in the future.” “It was helpful because I will impress teachers in the future with the way that I do my papers.”

Identified the types of errors that were made. Twenty-one participants reported that feedback from the instructor helped them to see the types of errors that they made. Participant comments included: “Yes, it helped better organize my writing and it also helped me recognize a lot of grammar mistakes I would make.” “Yes, the feedback was helpful. It helped me not to make the same mistakes again.” “Yes, it allowed me to see simple mistakes I made, and gain a new perspective on how to word things.”

Improved writing mechanics. Feedback helped participants to see alternative ways to word things, paraphrase ideas from the articles that they were reading, understand the importance of citing sources, and improve their grammar. The participants reported that the feedback that they received helped them with their grammar, sentence structure, and paragraph formation. It also helped some participants to recognize the importance of proofreading. “Yes, we received information on how to cite our source, paraphrasing information, and paragraph development.” “Of course there was some grammar feedback, but more than anything, emphasizing to captivate all readers with a different perspective than me.” One student, who continues to display characteristics of a long-term English language learner (ELL), reported that the feedback that she received on grammar and sentence structure were useful in improving her writing. She said, “I know that I am writing better and I understand better. I still have some grammatical errors. I still have some problems with subject verb agreement. I think it’s because my first language is Spanish. I still think in Spanish a lot of the time.”

Target skills for improvement. The participants reported that the feedback that they received gave them information about what skills to focus on to improve their next paper. Their

comments included: “The feedback that was given to me about my writing helped me because every time I needed to improve on something, I would work on it on the next paper.” “It helped me to always have a set target for the next paper.”

Forty-four out of forty-six participants reported that they found the formative feedback that they received from the instructor helpful in improving their academic writing skills. Their responses clustered around four major themes. These themes were improving skills for college; feedback helped them to see the types of errors that they were making; it improved their writing mechanics, and helped them to target skills for improvement on the next paper that they wrote.

Summary of Findings for Research Question Two

The majority of the participants in this study reported that they found all three of the instructional strategies helpful in improving their academic writing skills. Four types of cooperative learning activities were identified as helpful in improving academic writing. These activities were collaborative writing, peer reviews, group presentations, and jigsaw activities. Four types of scaffolding were found to support improved academic writing. These scaffolds were examples, feedback from peers and the instructor, explicit instruction on the technical aspects of academic writing, and having multiple opportunities to practice specific writing skills. Formative feedback was found to help students improve the writing skills needed in college by providing opportunities for participants to see the types of errors that they made, improve their writing mechanics, and helping them to set targets for improving their next academic paper.

Research Question Three: Comparison of Perceptions by Student Group

The third research question was, “Are students’ perceptions of the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback different for college students at a Hispanic serving university in south Texas whose first language was

Spanish when they entered kindergarten or first grade in the United States, students whose first language was English when they started school in kindergarten or first grade in the U. S., and students who immigrated to the United States after several years of adequate formal schooling in another country? Students' perceptions about the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback among students from different language/education backgrounds were compared using the responses to the open-ended survey questions and interview questions.

The three groups of students were: group one – students who started kindergarten or first grade in the United States speaking Spanish; group two - students who started kindergarten in the United States speaking English; and group three – students who immigrated to the United States between fifth and ninth grade. Group one was comprised of the twenty-two students who responded to the pre and post-test surveys. Many of these students are generation 1.5 students who continue to display characteristics of long-term English language learners. Seventeen students from group two responded to the pre and post-test surveys. Eight students from group three responded to both surveys. It is important to note that group three is significantly smaller than the other two groups of students, which affected the comparison of responses between groups by having a smaller response pool from group three than the other two groups.

The demographic information that the participants provided on their post-test survey responses was used to identify students' language/education background. Then students' responses were sorted and coded using the same categories that were used to analyze research question two. The categories analyzed were: cooperative learning, scaffolded instruction, and formative feedback.

Nine participants were interviewed. Four of the interviewees were in group one;; three were in group two; and two were in group three. The interviewees who had started school in Mexico had received adequate formal schooling prior to moving to the United States.

Cooperative Learning

The themes that were apparent in students' comments about cooperative learning focused on the quality of the experience, the effect on learning, relationships with peers and shared responsibility. Students' responses to the survey prompt: "Describe your experiences in cooperative learning groups in this class." were analyzed and sorted based on demographic information about language and educational background. Overall, there were only one major difference and four minor differences in the responses from students in the different subgroups about their experiences with cooperative learning. A comparison of participants' experiences with cooperative learning is shown in Table 18.

Table 18: Comparison of Participants' Experiences with Cooperative Learning

Experiential Categories	Sub-categories		Group 1: Spanish Speaking in kindergarten	Group 2: English Speaking in kindergarten	Group 3: Immigrated between 5th and 9th Grade
Quality of Experience	Positive	Enjoyable	X	X	X
	Negative	Some not Prepared	X	X	X
		Difficulty Meeting Out of Class	X		
		Prefer Individual Grading		X	
		Some Off Task Behavior			X
Effect on Learning	See Multiple Points of View		X		X
	Learn From Each Other		X		X
	Share Ideas		X		X
Relationships	Get to Know Peers		X		X
	Need to Rely on Others		X	X	
	Increased Participation			X	X
	Broader View of Discussion				X
Shared Responsibility	Need to Come Prepared		X		X
Collaboration	Collaborative Writing		X	X	X
	Peer Reviews		X	X	X
	Jigsaw & Think-Share Activities			X	X

The majority of the students in all three groups reported that they found cooperative learning activities enjoyable. One or two students in each group reported that they had negative experiences with cooperative learning activities due to some members of the group being unfocused or unprepared. The only major difference between the three groups was that groups one and three both had multiple comments about the effect that cooperative learning had on

learning and the need to come to class prepared to discuss the topic, while group two did not discuss the effect that cooperative learning had on learning or feeling a stronger need to come to class prepared.

Quality of experience. In the area of the quality of the experience, only minor differences were noted between groups. Often the differences were attributable to the experience of a single individual. The differences between negative experiences were that in group one, a student identified difficulty meeting outside of class as an issue. In group two, one student identified preferring individual grading, and in group three, one student identified observing some off-task behavior.

Group two did not identify any effects on learning. In the area of relationships, getting to know peers was not mentioned by group two. Group three did not identify the need to rely on others, and a broader view of the discussion was only mentioned by group three. Although all three groups identified sharing the workload, group three did not identify shared responsibility. Overall, the only significant difference between the comments from the three groups was that group two did not make any comments that were categorized as effect on learning. For the most part, the majority of comments from all three groups were positive. One or two individuals in each group made a negative comment about a team member not sharing the workload equally or about difficulty meeting outside of class.

Plans for using cooperative learning in the future. When the students who were interviewed were asked about the instructional techniques that they plan to use in their own classes when they are teachers, students from all three groups reported that they plan to use cooperative learning activities in their own classes. In response to a question asking for suggestions for improving the course in which this study was implemented, three students from

group one and one student from group two specifically mentioned that they enjoyed participating in cooperative learning activities. All of the students who were interviewed reported that they enjoyed the class.

Cooperative learning activities that helped improve academic writing. All of the groups identified collaborative writing and peer reviews as helpful activities. Students in groups two and three reported that jigsaw activities and think share activities were activities helped them to improve their academic writing. Based on a comparison of the responses to the open-ended question about cooperative learning and the responses to the interview questions, no substantive differences were noted between students from different language or educational backgrounds in their perceptions about cooperative learning.

Scaffolded Instruction

The participants' responses were compared by subgroup to the survey question: "Which activities, examples, and opportunities to practice specific writing skills in class helped you to improve your writing skills? How?" The major themes identified about the aspects of scaffolded instruction that were seen as helpful are examples, feedback, explicit instruction, and practicing skills. Table 19 shows a comparison between the three groups in the activities that were identified as helpful in improving academic writing.

Table 19:

Comparison by Group of Activities that Were Helpful in Improving Writing Skills

Experiential Categories	Sub-categories	Group 1: Spanish Speaking in kindergarten	Group 2: English Speaking in kindergarten	Group 3: Immigrated between 5th and 9th Grade
Examples	Sample Article Reviews	X	X	
	Power Points on Academic Writing	X	X	
Feedback	Feedback from Instructor	X		
	Feedback from Peers	X	X	
Explicit Instruction	Research Databases	X		
	Citing Sources	X	X	
Practicing Skills	Presentations on Article Reviews			X
	Writing Article Review			X

Students in group one were the only respondents who identified feedback from the instructor and explicit instruction on using research databases as helpful class activities. Group three was the only group that identified writing article reviews and doing presentations about the article reviews as helpful techniques for improving writing skills. Groups one and two identified sample article reviews, Power Points on academic writing, feedback from peers, and explicit instruction on citing sources as helpful activities for improving writing skills. Two major differences were identified between student groups in the types of scaffolding that was found most helpful. The students who received the majority of their education in the United States found examples, feedback, and explicit instruction to be most helpful. The students who immigrated to the U. S. after elementary school identified opportunities to practice skills by

writing multiple article reviews and giving three formal presentations in class as the most helpful scaffold in improving their writing skills.

Formative Feedback

A comparison was done between the responses of the three groups of participants to the survey question: “Was the feedback that you received about your writing helpful? If yes, in what ways did the individualized feedback that you received about your writing help you to improve your writing skills?” One student who started school in the U. S. speaking English in kindergarten and one student who started school in the U. S. speaking Spanish in kindergarten reported that they did not find the formative feedback that they received helpful in improving their writing skills. All of the other participants from the three groups reported that they found the formative feedback that they received was helpful in improving their academic writing. The factors that were mentioned about the ways that feedback helped students to improve their writing were: skills for college, identified types of errors, improved writing, and targeted skills for improvement. A comparison of student perceptions about feedback from the instructor is shown on Table 20.

Table 20:

Comparison of Sub-Group Responses about Formative Feedback from the Instructor

Experiential Categories	Sub-categories	Group 1: Spanish Speaking in kindergarten	Group 2: English Speaking in kindergarten	Group 3: Immigrated between 5th and 9th Grade
Skills for College	Ability to Write Article and Book Reviews	X		
	Write in More Formal Register		X	
Identified Types of Errors	Word Usage		X	
	Paraphrasing the Author's Ideas			X
	Citing Sources	X		X
Improved Writing	Grammar	X	X	X
	Sentence Structure	X	X	X
	Paragraph Formation			X
	Importance of Proofreading	X		
Targeted Skills for Improvement		X	X	

Students in all three groups reported that they received feedback from the instructor and their peers about their grammar and sentence structure. The students in group one were the only participants who identified the ability to write effective article and book reviews, improving skills needed in college, and the importance of proofreading. Writing in a more formal register and word usage were identified by students in group two. Students in groups three indicated that feedback from the instructor helped them to improve their paragraph formation and paraphrase the authors' ideas. During the interviews, students in all three groups reported that they generally received feedback about their grammar. Students from groups one and two indicated that they received feedback about their sentence structure. Two major differences were noted between groups on their responses about the formative feedback that they received. The participants in groups one and two both identified skills needed for college and targeting skills

for improvement. The participants in group three reported that the formative feedback they received helped them to paraphrase the author's ideas.

Comparison between Groups

Overall, there were relatively few differences in the responses to survey and interview questions were found between the three groups of students from different language and educational backgrounds. In general, the students in all three groups found all of the supports used in this study helpful in improving their academic writing skills. The minor differences that were seen in the responses from students in the different groups were often due to responses from one or two students within a group. The major response differences that were noted were between the students who immigrated to the U.S. after elementary school and the students who received the majority of their education in the United States. The students in all three groups generally found that the instructional strategies and supports that were used in this study helped them to improve their academic writing skills.

Conclusion

The purpose of this study was to examine the effectiveness of using a combination of cooperative learning, scaffolded instruction and formative feedback in improving the academic writing skills of Hispanic undergraduate students. Information was also gathered about the participants' perceptions about the effectiveness of the teaching strategies that were used in this study. In this chapter, data comparing students' first and last writing samples, and their perceptions of the strategies used in this study are presented. Positive gains were seen in the participants' academic writing skills. Large positive gains were seen in the participants' ability to produce APA style cover pages and references. Medium positive gains were seen on in-text

citations and style. Small positive gains were seen in the area of writing mechanics. Very small positive gains were seen in the content and organization of students' writing samples.

The participants reported that they found the three instructional strategies that were used in this study helpful in improving their academic writing skills. The cooperative learning activities that were identified as helpful in improving academic writing were collaborative writing, peer reviews, group presentations, and jigsaw activities. The types of scaffolding that the participants found helpful in improving their writing skills were examples, feedback from their peers and the instructor, explicit instruction about specific aspects of academic writing, and multiple opportunities to practice their writing skills. Formative feedback was found to be helpful in improving writing skills needed in college by identifying the types of errors that the participants were making, improving their writing mechanics, and helping them to set targets for improvement.

Finally, a comparison was made between the responses to open-ended survey questions and interviews by participants with different language and educational backgrounds. No major differences were noted between the three groups in their reactions to the use of cooperative learning to improve academic writing. The students in all three groups found four major cooperative learning activities to be helpful instructional strategies. These instructional strategies were collaborative writing, peer review, group presentations, and jigsaw activities. The types of scaffolding that were identified as helpful by the students in groups one and two, who had received all of their education in the United States, were examples, feedback, and explicit instruction. The students who immigrated to the U. S. after several years of instruction in another country focused more on opportunities to practice specific skills. In the area of formative feedback, the participants in groups one and two focused on formative feedback

helping them to develop writing skills needed for college and targeting skills for improvement on future papers. The students in group three found the feedback on how to paraphrase the author's ideas most helpful.

In Chapter 5 a brief overview of the study will be presented. A short synopsis of the findings from the data analysis will be presented. Conclusions based on the findings from this study will be presented as well as the implications for instruction. Finally, future research needs will be discussed.

Chapter 5

The gap in the number of Latino and white college students who graduate with a bachelor's degree is wider even than the very substantial differences in high school completion and constitutes the greatest disparity in educational outcomes between the nation's largest minority group and the white majority (Fry, 2004a).

Hispanic adults have the lowest levels of educational attainment of any ethnic group in the United States (Census, 2008). It is critical that educators identify the educational factors that are contributing to this disparity and find instructional methods that support improved academic success among this student population. Research is needed on instructional practices that support academic growth by Hispanic students, at all academic levels. Some research has been done with Hispanic students in K – 12 schools (Gándara & Contreras, 2009; C. Suárez-Orozco, M. M. Suárez-Orozco, & I. Todorova, 2008b), but the research on instructional techniques that support academic success by Hispanic college students is quite limited.

Overview of the Study

This chapter reviews the major components of this mixed-methods dissertation study that analyzes the effectiveness of the use of cooperative learning, scaffolded instruction, and formative feedback to support improvement in academic writing skills among undergraduates at a Hispanic serving university in south Texas. The perceptions of students with different educational and language backgrounds of the techniques used in this study are also reviewed. A summary of the findings from the data analysis of this study is presented for each research question. This is followed by a discussion of the conclusions that were drawn from these findings and the implications for the field of education that are indicated from these conclusions. Finally, recommendations are presented for future research about methods for supporting improvement in academic language skills by college students at Hispanic serving universities, and instructional practices that support growth in the area of academic writing among Hispanic college students.

The problems that were addressed in this study are that many Hispanic undergraduates fail to graduate from college, and a large group of Hispanic students start college without the academic writing skills needed to succeed in their college classes. In addition, the writing skills that are taught in college level English composition classes do not adequately meet the academic writing needs of many of these students (Fry, 2002; Singhal, 2004). Different types of academic writing are needed in different fields of study. There are different ways of thinking, speaking, listening, reading, and writing in each academic area (Gee, 2008; Harklau, 2003; Roberge, 2002).

Study Sample

The participants in this study were students who were enrolled in the second course in a series of teacher preparation classes. The researcher was the instructor for this course. These students were chosen for this study because there is a need for students who are in the beginning classes of a teacher preparation program to learn the academic language and academic writing skills that are associated with the field of education and the academic area that these pre-service teachers are preparing to teach.

Fifty students from these two classes agreed to participate. Of the fifty students, forty-six completed the course. Forty-one of these participants responded to both the pre-test and post-test Likert style survey that was used to quantitatively analyze students' perceptions of cooperative learning. Forty-six students responded to the qualitative open-ended questions on the post-test survey. These responses were used to gather information about the participants' perceptions about the three instructional strategies used in this study. Demographic information was collected on all of the forty-six participants who completed the study.

In addition, nine Hispanic students who participated in this study were interviewed to gather more in depth qualitative information about their perceptions regarding the instructional techniques that were used in this study. These students were representative of the different educational and language backgrounds of the students who participated in this study.

Although the quantitative component of this study used a non-experimental research design, the student sample in the two classes that participated in this study was fairly representative of the student population at the Hispanic serving university in south Texas where this study was conducted. Some minor differences between the study sample and the university population were noted. Fifteen percent of the university population is high school students who are taking dual enrollment classes at their high school. There were no dual enrollment students in the study sample. The other major difference between the study sample and the university population is that five percent of the population of the university is an ethnicity other than Hispanic or Caucasian. All of the participants in this study were either Hispanic or Caucasian.

Fifty-two percent of the students who participated in this study work full-time in addition to taking college classes. Forty-six percent of the study participants are also raising children. Sixty-one percent of the students who participated in this study spoke Spanish when they started attending school in the United States. The majority of the students in this study come from backgrounds that are culturally and linguistically diverse from the mainstream culture in the United States. Many of the participants in this study display the characteristics of generation 1.5 students which are similar to the characteristics of long-term English language learners (Harklau, 2003; Roberge, 2002).

Research Questions

In order to address the need for students in their second teacher preparation class to develop the skills needed to review, understand, and write about the body of literature in the field of education, the following research questions were investigated:

1. Are the academic writing skills of college students at a Hispanic serving university in south Texas improved when a cooperative learning teaching model combined with scaffolded instruction and formative feedback is used?
2. What are the perceived academic benefits of having participated in a college class where a cooperative learning teaching model combined with scaffolded instruction and formative feedback is used?
3. Are the student perceptions of the use of a cooperative learning teaching model combined with scaffolded instruction and formative feedback different for Hispanic college students in south Texas whose first language was Spanish when they entered kindergarten or first grade in the United States, students who immigrated to the United States after several years of adequate formal schooling in another country, and students whose first language is English?

Data Collected

In order to answer the first research question, students' first and last writing samples were compared, using a rubric that analyzed content, organization, style, and mechanics. The writing samples that were compared were short reviews of academic journal articles in the field of education. The writing samples were also analyzed with a second rubric about how well they followed the guidelines using the (*Publication Manual of the American Psychological*

Association, 2010) guidelines about how to format a cover sheet, in-text citations, and references.

Pre-test and post-test surveys containing fifteen questions using a five point Likert scale and four open-ended questions on the post-test were used to address the second research question . To examine research question three, the responses to the open-ended survey data and interview questions were analyzed for response differences between the three groups of students who participated in the study. These groups are described in research question three.

Research Question One: Improvement in Academic Writing

Research question one focused on student growth in academic writing. A pre-test writing sample was compared with a post-test writing sample for each of the forty-six participants who completed this study. Two rubrics were used to analyze these writing samples. One rubric focused on different aspects of academic writing. The other rubric focused on how well the participants followed APA 6 formatting guidelines.

Findings about Research Question One

To answer the first research question, the participants' first writing sample and last writing sample were compared to determine whether their academic writing skills improved when a cooperative learning teaching model combined with scaffolded instruction and formative feedback was used. Cohen's *d* was used to determine the effect size in each area. Large positive effects of .92 on the ability to produce an APA style cover page and .83 on references following APA style guidelines were observed. Medium positive effects of .61 on in-text citations and .55 on style were observed. A small positive effect of .22 was seen in the area of mechanics. Very small positive effects of .13 on content and .19 on organization were noted.

The mean score on the first writing sample on the cover sheet was 4.0 and on the last writing sample the mean score was 4.7 on a five point scale. This indicates that the majority of

participants mastered creating an APA style cover sheet on their last article review. The mean score on the first article review for references was 2.8 and the mean score on the last article review was 3.5 on a five point scale, which indicates that students had a lot of difficulty writing APA style references on their first article review, but improved significantly on their last article review.

A medium positive effect was seen on citing sources within the text. The mean score for in-text citations on the first writing sample was 2.8 and the mean score for in-text citations on the last writing sample was 3.5. Writing in-text citations requires some critical thinking because the writer must recognize when it is appropriate to cite the source within a document and how to cite sources under different circumstances such as when citing a direct quote or citing information that the author had cited from another source.

A medium positive effect was seen in the area of style. The mean score for style on the first writing sample was 3.6, and the mean score on the last writing sample was 4.0 on a five point scale. Style was assessed based of appropriate word choice and vocabulary, the use of a variety of sentence types, and the presentation of a consistent and appropriate point of view.

A small positive effect was seen in the area of mechanics, which encompasses standard grammar, spelling, and punctuation. The mean score for mechanics on the first writing sample was 3.58 and the mean score for mechanics on the last writing sample was 3.72 on a five point scale.

Very small positive effects occurred in the areas of content and organization. Most of the participants scored fairly well in the area of organization on their first writing samples. The mean score in the area of organization on the participants' first writing sample was 4.3 and their mean score on organization on the last writing sample was 4.5 on a five point scale. The least

significant gains were made in the area of content. In this area the mean score on the first writing sample was 3.8 and the mean score on the last writing sample was 3.9 on a five point scale.

Conclusions about Research Question One

The majority of the participants in this study improved substantially in their ability to follow APA formatting guidelines during this semester long study. The ability to follow different formatting guidelines while writing in different types of academic coursework is an important skill that is needed within a university setting. Many students start college with limited exposure to following different formatting guidelines, but it is possible for a large percentage of students to master the skills associated with following these types of guidelines within a semester long class. These results are similar to the findings in Beason (1993), in that the major improvements between the participants' first writing sample and their last writing sample were, for the most part, surface level changes that did not impact the meaning of what was written. Learning to write a cover page or a reference involves following a set of formatting criteria, but it does not involve significant levels of critical thinking.

Moderate gains were also seen in the area of style. The criteria that was used to measure style focused on using a variety of sentences and vocabulary, and presenting a consistent point of view throughout an article review. With practice and support, the participants in this study were able to make substantial improvement in the area of style within this semester long course. Small positive gains were observed in the area of mechanics. The criteria used to measure mechanics focused on spelling, grammar, and punctuation. The participants' scores in this area ranged from 3.0 to 4.1 on their first set of writing samples. The participants' scores ranged from 3.0 to 4.5 on the final set of writing samples.

Mechanics is an area of writing that can be an issue for generation 1.5 college students; however, the issues are often varied and unique to each individual (Harklau, 2003; Roberge, 2002; Wiley, et al., 2009). For those students who continue to struggle with writing mechanics in college, more intensive support with writing may be needed.

Very small positive gains were seen in the area of organization from a mean score of 4.3 on the participants' first writing sample to 4.5 on their last writing sample. Many of the participants in this study were already able to write a well organized writing sample when they wrote their first writing sample for this study.

Very small positive gains were also observed in the area of content. Content was one area in which the participants received a substantial amount of scaffolding on their first writing sample and no scaffolding on the last writing sample. Several participants selected articles to review that did not meet all of the criteria of the assignment, which affected their final scores in the area of content.

Implications for Supporting Improvement in Academic Writing in College

There are five major implications from the findings related to research question one. First, college students need to be explicitly taught the specific writing requirements associated with their different fields of study. Second, with explicit instruction, most college students are able to master the organizational and formatting requirements associated with a particular field of study within a one-semester entry level course. Third, those college students who struggle with writing mechanics are likely to need support with writing mechanics on an on-going basis for several semesters. Fourth, student writing improves more quickly in some areas than others. Fifth, Hispanic serving universities need to support Generation 1.5 students and recent immigrants with adequate formal schooling with the nuances of writing mechanics in English.

College students need to be explicitly taught the specific writing requirements associated with their different fields of study. It is critical for college students to learn the writing expectations associated with their different fields of study. This includes following specific formatting guidelines and writing the types of documents needed in their coursework. Commonly used formatting guideline include MLA, APA, and Turabian. Different college classes require students to write research papers, lab reports, critical analyses of journal articles and books, and many other documents that are specific to different fields of study. The writing requirements associated with different types of courses need to be taught explicitly as part of beginning courses in different areas of study.

With explicit instruction, most college students are able to master the organizational and formatting requirements associated with a particular field of study within a one semester entry level course. Substantial gains were made by most participants in their ability to follow APA guidelines and the organizational writing requirements examined in this study. Large positive effect sizes were observed in the areas of creating APA style cover pages and references. Moderate positive effects sizes were seen in the participants' ability to cite sources within the text of a document following APA guidelines and in the area of style, which focuses on sentence variety and maintaining a consistent point of view throughout the written document. Most of the education students in this study were able to learn the formatting expectations associated with writing in the field of education during a one semester class. Therefore, it is important for college professors to provide students with explicit instruction about the organizational and formatting guidelines needed for the different types of documents associated with the field of study that they are teaching as they introduce assignments requiring students to produce these documents.

Those college students, who struggle with writing mechanics, are likely to need support with writing mechanics on an on-going basis for several semesters. Small positive gains were observed in the area of writing mechanics. The implication of this finding is that students who struggle with writing mechanics in college are likely to need support with improving their writing mechanics for several semesters in order to master these skills.

Student writing improves more quickly in some areas than others. The comparison of students' first and last writing samples showed some positive growth in all of the areas that were analyzed. The largest gains were seen in students' ability to follow specific formatting guidelines and on style issues. Small positive improvements were seen in mechanics, organization, and content. College professors can expect students to be able to follow formatting guidelines fairly quickly with explicit instruction and examples; however, substantive gains in writing skills are likely to require on-going practice, feedback, and support over an extended period of time.

It takes more than one semester to fully develop academic writing skills. Students made some progress in improving their academic writing skills during this study. In spite of the growth that was observed, the majority of the participants in this study were unable to master all of the academic writing skills associated with the field of education. It was concluded that it takes several semesters of working with students to improve their writing skills in a particular academic content area for most students to truly master all aspects of the academic language associated with that field of study.

Becoming fluent in the written academic language of any field of study requires time to master. Students need opportunities to read extensively in the academic field that they are studying. In addition, they need opportunities to discuss what they have read and write about

what they have read. The academic writing skills needed to earn a college degree cannot be learned in a single semester. Students must build background knowledge, and learn the vocabulary and the writing venues associated with their academic field. Therefore, it is important for college professors to include course assignments that provide opportunities for students to learn and practice the types of writing that they will need in the professions associated with their academic degree. good

Hispanic serving universities need to support Generation 1.5 students and recent immigrants with adequate formal schooling with the nuances of writing mechanics in English. Many students who attend Hispanic serving universities are either generation 1.5 students who continue to display some characteristics of long term English language learners, or students who immigrated to the United States in secondary school or as post-secondary students (Wiley, et al., 2009). Writing mechanics in English is very complex due to the many exceptions to grammar and spelling rules. These student populations are able to master academic writing in English, but they need on-going support to master the complexities of writing in English.

The findings from research question one of this study provide insight into several major implications for the instruction of Hispanic college students. First, many Hispanic college students are generation 1.5 students who have similar academic needs to long-term English language learners (Harklau, 2003; Menken & Kleyn, 2010; Olsen, 2010; Roberge, 2002). Second, many of the Hispanic students who start college do not complete their academic degree (Fry, 2002). Effective strategies are needed to support academic success among Hispanic college students. Third, many Hispanic college students attend Hispanic serving institutions of higher education. In order to change the college completion rate among Hispanic college students, Hispanic serving colleges and universities need to find more effective methods for

supporting academic success among Hispanic students. Finally, with effective methods of instruction, opportunities to learn the skills needed for academic success, and appropriate supports as they make the transition from high school to college, most Hispanic college students are capable of learning the skills needed to successfully complete their college degrees (Plala, 1995).

Research Question Two: Instructional Strategies

The second research question in this study focused on students' perceptions about the effectiveness of three instructional techniques in supporting improvement in academic writing skills. The three instructional techniques that were used in this study were cooperative learning, scaffolded instruction, and formative feedback. Quantitative and qualitative data on students' perceptions about the instructional strategies were used to answer the second research question. Survey questions and structured interviews were used to gather this information.

Quantitative Findings about Cooperative Learning

Quantitative information was gathered about students' perceptions about cooperative learning. A Likert style survey that had been previously validated in several studies including Morgan, Rosenberg, and Wells (2010) was used. The mean score for each post-test survey question, and the effect size of the change from the pre-test to the post-test responses are shown in Table 21.

Table 21:

Results from the Likert Style Cooperative Learning Survey

Survey Question	Post-test Mean	Effect Size	Strength Of Effect Size
I believe that cooperative learning is an effective instructional technique in most content areas.	4.51	.81	Large Effect
I believe that cooperative learning increases student participation in learning activities.	4.66	.58	Medium Effect
I believe that cooperative learning improves student communication and decision making skills.	4.59	.59	Medium Effect
I believe that cooperative learning encourages and improves the performance of high ability students.	4.34	.50	Medium Effect
I believe that cooperative learning encourages and improves the performance of average ability students.	4.39	.36	Small Effect
I believe that cooperative learning encourages and improves the performance of low ability students.	4.32	.16	Very Small Effect
I believe that using cooperative learning is an efficient teaching technique.	4.39	.17	Very Small Effect
I plan to increase my use of cooperative learning by organizing a cooperative study group.	4.12	.50	Medium Effect
Rewarding individual performance based on group success is an equitable method of grading.	3.90	.50	Medium Effect
I usually like to work better in groups than I like to work alone.	3.66	.37	Small Effect
I like to participate in cooperative activities.	4.15	.44	Small Effect
Working in a jigsaw helps me to learn the assigned material.	3.76	.37	Small Effect
As an "expert" for part of the material we need to learn, makes me prepare more carefully.	4.22	.24	Small Effect
In a jigsaw activity I listen carefully to my peers to learn the material that they are "experts" in.	4.39	.40	Small Effect
In a jigsaw activity I gain an understanding of the material through discussion with my peers.	4.29	.31	Small Effect

$$d = M_1 - M_2 / \sigma_{\text{pooled}} \quad \sigma_{\text{pooled}} = \sqrt{[(\sigma_1^2 + \sigma_2^2) / 2]}$$

The mean score for twelve of the fifteen Likert style questions was between 4.0 and 5.0 on a five point scale, indicating that the majority of participants either agreed or strongly agreed with the statement that they were asked to rate. The mean score on three of the fifteen survey

questions was between 3.66 to 3.90 on a five point scale, indicating that the majority of responses were positive, but there were also some responses in the strongly disagree to neutral range.

The effect size indicates the amount of change in the participants' responses from the pre-test survey to the post-test survey. A large positive effect was observed from the pre-test to the post-test on students' perceptions of the effectiveness of cooperative learning. Medium positive effects were observed on questions about cooperative learning increasing participation, improving the performance in high ability students, increasing communication, and enhancing decision making skills. Medium positive effects were also seen in students' responses to questions about planning to develop a cooperative learning study group, and the fairness of grading individuals on group performance.

Small positive effects were observed from the pre-test survey to the post-test survey on student perceptions about how cooperative learning effects the performance of students with average ability, whether students prefer group tasks over individual tasks, whether working in groups is enjoyable, and how jigsaw activities effect learning. Very small positive effects were seen on students' responses to questions about the efficiency of cooperative learning and its effect on the performance of students with low ability.

Qualitative Findings

Qualitative information on students' perceptions of cooperative learning, scaffolded instruction and formative feedback was obtained with open-ended survey questions and structured interviews. The open-ended survey questions were responded to in a written format as part of a post-test survey. Structured interviews were conducted with nine participants who were

representative of the different educational and language backgrounds of the participants in this study.

Cooperative learning. The data from the responses to the open-ended survey questions and interviews supported the quantitative findings about cooperative learning. The responses to the survey question, “Describe your experiences in cooperative learning groups in this class.” Forty-one survey responses about the participants’ experiences with cooperative learning were positive. Five respondents reported that some aspect of their experience working with small groups in this class was negative.

When the participants’ responses were analyzed, it was found that the responses could be categorized in four major areas: the quality of the experience, the effect on learning, relationships with peers, and shared responsibility. The positive comments that focused specifically on the cooperative learning experience focused on enjoying cooperative learning activities. The negative comments focused on partners being unprepared, difficulty meeting outside of class, and preferring individual grading. Comments about the effect of cooperative learning activities on learning focused on exposure to multiple points of view, learning from each other, and sharing ideas. The comments about relationships centered on getting to know classmates and needing to rely on each other. Students also discussed shared responsibility, shared workload, and feeling the need to come to class prepared.

During the structured interviews, the respondents reported that cooperative learning activities had enriched their learning experience. All of the participants who were interviewed reported that they plan to use cooperative learning activities in their own classrooms when they become teachers. The four types of cooperative learning experiences that were used to help

participants improve their academic writing were collaborative writing, group presentations, peer reviews, and jigsaw activities.

Collaborative writing. All of the responses about collaborative writing were positive. Students reported that they discussed the writing process, shared ideas, and considered the opinions of others. Peer modeling helped them to learn research skills, see different approaches to the problem, and expand their vocabulary. Four out of the nine students who were interviewed identified collaborative writing as an activity that helped them to improve their writing skills.

Peer Review. Peer review was found to be a particularly helpful cooperative learning activity for supporting growth in academic writing. The participants reported that they received positive, immediate, and corrective feedback from their peers. The corrective feedback focused on grammar, sentence structure, and APA format. All of the students who participated in the post-test survey and interviews found collaborative writing helped them improve their academic writing skills.

Other cooperative learning activities. Three other cooperative learning activities were specifically mentioned by survey respondents as activities that helped participants to improve their academic writing skills. These activities were group presentations, jigsaw activities, and think-pair-share activities. These opportunities to synthesize ideas and orally summarize information were reported to help students see how others approached the problem. Five students mentioned group presentations, three students mentioned jigsaw activities, and one student mentioned think-pair-share activities, when asked about cooperative learning activities that helped them to improve their writing skills.

Scaffolded instruction. Three major areas of scaffolding were perceived to be helpful in improving academic writing. These areas were examples, explicit instruction, and practicing skills. The examples that were perceived to be helpful were sample article reviews and a Power Point presentation on academic writing. The areas of explicit instruction that the students described as beneficial in improving their writing skills were instruction on using the library databases and citing sources. They also reported that practicing writing article reviews and presenting the information in their article reviews to the class were useful processes. Each of the scaffolding techniques that were used in this study were identified by some students as being helpful to them as they worked on improving their academic writing, but the responses were quite varied.

Formative feedback. Four major themes were identified from students' responses to questions about formative feedback. Students' responses were related to gaining skills needed in college, identifying the types of errors that they had made, helping them to improve their writing, and targeting skills for improvement on the next paper. Students reported that learning how to write reviews of journal articles and learning how to write in a more formal register were helpful skills that were needed in college. They indicated that the feedback that they received from the instructor and their peers helped them to learn new ways to word things, methods for paraphrasing the author's ideas, and that the feedback that they received clarified the importance of citing sources. Students reported that feedback supported them in improving their grammar, sentence structure, and paragraph formation. It also helped some students to recognize the importance of proofreading.

Cooperative learning is enjoyable and engaging. Most students reported that they enjoyed cooperative learning activities during class. One hundred percent of the students who

responded to the post-test survey indicated that they thought that cooperative learning was an effective instructional method, and that it increased student participation. They also thought that cooperative learning increased communication and decision-making skills. The participants' positive reactions to cooperative learning activities support the findings from other researchers about cooperative learning being an engaging and enjoyable instructional technique (Johnson, et al., 2007; Kagan, 1995; Tinto, 1997).

Collaborative writing and peer review are effective cooperative learning activities for improving academic writing skills. Opportunities to write with other students, review each other's work, and discuss the writing process helped the students in this study to improve their academic writing skills. The participants also reported that the opportunity to discuss academic articles in small groups and present their ideas in class helped them to improve their academic language skills. Cooperative learning provides opportunities for students to hear multiple perspectives, and clarify the concepts that they are learning by discussing these ideas in small groups.

All of the students who participated in this study reported that they found collaborative writing a helpful tool for improving their academic writing skills. They reported that their writing skills improved due to peer modeling, peer reviews, and generating ideas with a small group. All of these techniques have been shown to improve students' writing skills (Graham & Perin, 2007).

All five components of cooperative learning are needed for successful small group experiences. Although most groups had a successful experience; there were some groups whose experience was not particularly successful. These groups did not utilize all of the components of cooperative learning. The five components of cooperative learning: positive interdependence,

face to face interaction, individual accountability, small group and social skills training, and group processing, help students to have a successful small group experience.

Some of the small group projects that were included in this study required students to work together outside of class. Some groups attempted to do their project without face to face interaction. There were other groups that did not share the workload evenly. The students in the groups that did not use all five components of cooperative learning reported that they did not have particularly successful experiences with their small group projects. These findings are similar to the findings of Tinto (1997).

In order for students to have successful small group learning experiences, they need to understand the five components of cooperative learning. Without all of the components of cooperative learning, students often have unsuccessful experiences with small group projects. When students are first learning to use cooperative learning techniques, they tend to have some team members who take over and other team members who do not carry their part of the workload.

A variety of scaffolding techniques are needed. The scaffolds that were identified as helpful in improving students' academic writing were examples, explicit instruction, and opportunities to practice writing article reviews. The scaffolds that were identified by individual students were different for different students. This indicates that multiple types of scaffolding may be needed to support the varied needs of the students in any class. All of the scaffolding techniques that were used in this study were techniques that are supported in the literature as effective method for supporting student growth in writing skills (Graham & Perin, 2007).

Students benefit from formative feedback from their instructor and their peers.

Students need feedback about their writing as it relates to different academic content. The

students in this study reported that they found the feedback that they received helpful in improving their academic writing skills. In addition, students made positive gains in all areas of writing that were analyzed.

Implications for Research Question Two

The participants in this study perceived the combined use of cooperative learning, scaffolded instruction, and formative feedback as a helpful method for supporting growth in academic writing skills. In addition, positive gains were made in all areas of academic writing. The combined use of these three instructional strategies is helpful in improving college students' academic writing.

Collaborative writing and peer review are effective cooperative learning activities for supporting improvement in academic writing. Cooperative learning activities that specifically target writing improvement, such as, collaborative writing and peer review, should be used to help students improve their academic writing skills. Students benefit from the process of generating and sharing ideas together. These cooperative learning activities also provide opportunities for students to see how others approach the problem and become familiar with multiple perspectives. Therefore, college professors should consider including these activities as part of their instruction.

For cooperative learning to be effective, students need explicit instruction in the five elements of cooperative learning and opportunities to practice these skills in class. When students work in small groups without fully understanding the five elements of cooperative learning, they often have negative experiences with working in small groups. When students work in small groups without fully understanding these elements of cooperative learning, it can result in unevenly distributed workloads, group members failing to contribute fully, or one

person pushing their personal agenda without considering the ideas and input of other members of their team. When an instructor begins using cooperative learning activities, it is important to start by explaining the components of effective cooperative learning and having students practice the skills associated with each of these five components of cooperative learning.

Limit the number of cooperative learning projects outside of class. Many college students are raising children or have jobs in addition to attending college. It may be difficult for some college students to make arrangement to meet with partners outside of class. For this reason, it is probably wise to limit the number of group projects requiring students to meet outside of class that are assigned per semester to no more than two projects per semester.

Scaffolded instruction and formative feedback help students learn new skills. College students are often expected to learn complex new skills. Breaking down new complex new skills into component parts helps students to master these new skills. Providing examples, explicit instruction, and opportunities to practice new skills helps students to understand the expectations of the assignment. Giving students written feedback about how their work differs from the expectations of the assignment, rather than simply telling them whether they got the assignment correct, helps them to master new skills.

Comparison of Findings between Student Groups Research question three compared the findings for students from different groups on research question two to determine whether students' perceptions about the instructional strategies that were used in this study were different for students from different educational and language backgrounds. The participants' perceptions of the instructional techniques used in this study were analyzed for noteworthy differences in the responses from students with different educational and language backgrounds. Qualitative survey and interview data was analyzed by subgroup. The three subgroups of students whose

responses were analyzed were: group one - students who started school in the United States speaking Spanish in kindergarten or first grade, group two - students who started kindergarten in the United States speaking English, and group three - students who immigrated to the United States between fifth and ninth grade.

Findings about Research Question Three

Only a few differences were seen in the responses to survey and interview questions between the three groups of students from different language and educational backgrounds. The students in all three groups reported that all of the supports used in this study were helpful in improving their academic writing skills. The minor differences that were seen in the responses from students in the different groups were often due to responses from one or two students within a group. No notable differences were noted between students from different language or educational backgrounds in their perceptions about cooperative learning.

The differences that were noted were between the students who immigrated to the U.S. after elementary school and the students who received the majority of their education in the United States. The students who received the majority of their education in the United States found examples and explicit instruction to be most helpful types of writing support that they received during this study. The students who immigrated to the U. S. after elementary school identified opportunities to practice skills by writing multiple article reviews as the most helpful scaffold in improving their writing skills. The participants who received the majority of their education in the U. S. reported that the formative feedback that they received helped them to develop skills needed for college and target skills for improvement. The participants who immigrated between fifth and ninth grade reported that the formative feedback they received helped them to paraphrase the author's ideas.

Conclusions about Research Question Three

All of the participants perceived the instructional techniques used in this study to be helpful techniques for supporting growth in academic writing. All forty-six participants reported that they benefited from participating in collaborative writing activities. Forty-four out of forty six participants found feedback from peers and the instructor helpful supports for improving their academic writing skills. Those participants who received the majority of their education in the U. S. reported that examples and explicit instruction as the most helpful types of scaffolding that they received during this study. Those participants, who immigrated to the U. S. in secondary school, indicated that opportunities to practice skills were the most helpful type of scaffolding for them as they worked on improving their academic writing skills.

Implications from Research Question Three

The participants from the three different subgroups all found the instructional strategies used in this study beneficial supports that helped them to improve their academic writing skills. Few differences were noted in the perceptions of students from different educational and language backgrounds. This implies that the instructional techniques used in this study are helpful in supporting students from different backgrounds with growth in academic writing.

The instructional strategies used in this study were perceived to improve academic writing by students from different educational and language backgrounds. The three instructional strategies used in this study did have a positive impact on the participants' academic writing skills. A combination of cooperative learning, scaffolded instruction, and formative feedback resulted in positive gains in study participants' writing skills. In addition, the participants' perceptions about the strategies used in this study were generally positive.

Future Research

Writing in Different Academic Content Areas

College students need to be able to write effectively in a variety of academic content areas. More research is needed on the effectiveness of the techniques that were used in this study in different academic content areas. Growth was observed in students in a teacher education program, but it cannot be assumed that the same instructional techniques will be as effective in other academic content areas.

Instructional Techniques Analyzed Separately

It would be beneficial to study each of the instructional strategies used in this study independently to determine the impact of each individual instructional strategy on academic writing. Since the instructional techniques used in this study were provided in conjunction with each other; conclusions about the effectiveness of these techniques in supporting academic writing are limited to conclusions about the combined use of these strategies. This study provided information about students perceptions about each of the strategies used in this study, but would be helpful to gather data on the effectiveness of each of these strategies independently.

Analysis of Instructional Strategies over a More Extended Period of Time

Using a quasi-experimental research design comparing writing samples over a longer period of time would provide additional information about the applicability of the results of this study to other student populations. Although positive gains were noted in all areas of academic writing, the gains in some areas of academic writing were relatively small. It would be useful to determine whether larger gains would occur if these strategies were used over a longer period of time.

Analysis of the Effect of Having Students Write Multiple Drafts of the Same Paper

It would be beneficial to do a follow up to this study that requires students to submit multiple drafts of their academic papers based on the feedback that they receive on each draft to determine whether larger gains in academic writing skills would be seen, if students were required to correct their work. One significant finding in this study was that most of the changes that students made in response to the feedback that they received were superficial changes that did not impact the meaning of what they wrote. A study that required students to do multiple drafts of academic papers would provide some answers about whether making corrections based on the feedback received on the academic papers that students write results in more substantive changes in their writing than providing feedback without having students make corrections based on that feedback.

Final Summary

This mixed methods research study analyzed the effectiveness of the combined use of cooperative learning, scaffolded instruction, and formative feedback on the academic writing skills of forty-six college students at a Hispanic Serving university in south Texas. Large positive gains were seen in the participants' ability to make surface improvements such as producing a cover page and write a reference following an APA-6 format. Medium positive effects were seen in students' ability to correctly cite sources within the text of an article review and in the area of style. A small positive effect was seen in mechanics. Very small positive gains were observed in the areas of content and organization.

Quantitative and qualitative finding about students' perceptions of cooperative learning indicate that most students enjoy cooperative learning activities and the participants of this study found cooperative learning an effective instructional technique for supporting growth in cooperative learning. The participants also found scaffolded instruction and formative feedback

effective instructional techniques that supported growth in academic writing. The majority of the participants reported that they had positive experiences with cooperative learning. A few participants reported that they had difficulty meeting outside of class or that they had partners who did not share the workload evenly.

Collaborative writing and peer review were the two types of cooperative learning activities that the participants found most helpful in improving academic writing. The types of scaffolding that were found to be most helpful were examples, explicit instruction, and practicing skills. Participants reported that the feedback that they received assisted them in developing skills that were needed in college, helped them to identify the types of errors that they were making, improved their writing, and aided them in targeting skills for improvement. No significant differences were observed between the perceptions of students from different language or educational backgrounds.

Conclusions

Positive gains were seen in all areas of academic writing, but larger gains were seen in some areas of academic writing than others. The majority of the participants in this study improved substantially in their ability to follow APA formatting guidelines and in the area of style. Small positive gains were observed in the areas of writing mechanics, content, and organization.

The three instructional strategies used in this study were perceived by the participants to support growth in academic writing. The participants in this study reported that cooperative learning is an enjoyable and engaging instructional technique. Collaborative writing and peer review were reported to be effective cooperative learning activities for improving academic writing skills. In order for students to have successful experiences with small group projects, the five components

of cooperative learning are needed. It was also determined that variety of scaffolding techniques are needed to meet the needs of all students. Students felt that they benefitted from formative feedback from their instructor and feedback peers. All of the participants perceived the instructional techniques used in this study to be helpful techniques for supporting growth in academic writing, regardless of their language or educational background.

Implications

College students need to be explicitly taught the specific writing requirements associated with their different fields of study. With explicit instruction, most college students are able to master the organizational and formatting requirements associated with a particular field of study within a one semester entry level course. Those college students, who struggle with writing mechanics, are likely to need support with writing mechanics on an on-going basis for several semesters. It takes more than one semester to fully develop academic writing skills. Hispanic serving universities need to support Generation 1.5 students and recent immigrants with adequate formal schooling with the nuances of writing mechanics in English.

The combined use of cooperative learning, scaffolded instruction and formative feedback helps students improve their academic writing skills. Collaborative writing and peer review are effective cooperative learning activities for supporting improvement in academic writing. However, for cooperative learning to be effective, students need explicit instruction in the five elements of cooperative learning and opportunities to practice these skills in class. The instructional strategies used in this study were perceived to improve academic writing by students from different educational and language backgrounds. College professors should use a

combination of cooperative learning, scaffolded instruction, and formative feedback to support students in learning the different types of academic writing needed for success in college.

Future Research

More research is needed on the effectiveness of the techniques that were used in this study in different academic content areas. Each of the instructional strategies used in this study should be researched independently to determine the impact of each individual instructional strategy on academic writing. It would be beneficial to determine whether larger gains would occur if these strategies were used over a longer period of time. It would also be interesting to study the impact of having students do multiple drafts of the same academic paper to determine whether this would result in more substantive changes in their writing.

References

- Adelman, C. (1999). Answers in the tool box: Academic intensity, attendance patterns, and Bachelor's degree attainment. Washington, D. C.: U. S. Department of Education, Office of Educational Research and Improvement.
- Aud, S., Hussar, W., Planty, M., Snyder, T., Bianco, K., Fox, M., et al. (2010). The Condition of Education 2010. Washington, D.C.: National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education.
- Baker, C. (2006). *Foundations of Bilingual Education and Bilingualism, 4th Edition*. Clevedon: Multilingual Matters.
- Barr, R., & Dreeben, R. (1983). *How schools work*. Chicago: University of Chicago Press.
- Bauman, J. F., Kameenui, E. J., & Ash, G. E. (2002). Research on vocabulary instruction: Voltaire redux. In J. Flood, D. Lapp, D. R. Squire & J. Jensen (Eds.), *Handbook of research on the teaching of language arts* (pp. 752-785). Mahwah: Erlbaum.
- Beason, L. (1993). Feedback and revision in writing across the curriculum classes. *Research in the Teaching of English, 27*(4), 395-422.
- Betts, J., Rueben, K., & Danenberg, A. (2000). Equal resources, equal outcomes? The distribution of school resources and student achievement. San Francisco: Public Policy Institute of California.
- Biber, D. (1986). Spoken and Written Textual Dimensions in English: Resolving the Contradictory Findings. *Language, 62*(2), 384-414.
- Birney, R. C., Burdick, H., & Teevan, R. C. (1969). *Fear of failure*. New York: Van Nostrand.

- Bowen, W. G., & Bok, D. (1998). *The shape of the river: Long-term consequences of considering race in college and university admissions*. Princeton: Princeton University Press.
- Branford, J. D., Brown, A. L., & Cocking, R. R. (2000). *How people learn: Brain, mind, experience, and school*. Washington, D. C.: National Academies Press.
- Brenner, M. E. (2006). Interviewing in educational research. In J. L. Green, G. Camilli & P. B. Elmore (Eds.), *Handbook of complementary methods in educational research* (pp. 357-370). Mahwah: Lawrence Erlbaum Associates.
- Bridgeland, J., Dilulio, J., & Morison, K. B. (2006). *The Silent Epidemic: Perspectives of High School Dropouts*. Washington, D.C.: Civic Enterprises.
- Brookfield, S. D., & Preskill, S. (2005). *Discussion as a way of teaching: Tools and techniques for democratic classrooms*. San Francisco: Jossey-Bass.
- Brown, B., & Theobald, W. (1998). Learning context beyond the classroom: Extracurricular activities, community organizations, and peer groups. In K. Borman & B. Schneider (Eds.), *The adolescent years: Social influences and educational challenges* (pp. 109-141). Chicago: University of Chicago Press.
- Brown, B., & Thoebald, W. (1998). Learning context beyond the classroom: Extracurricular activities, community organizations, and peer groups. In K. Borman & B. Schneider (Eds.), *The Adolescent Years: Social Influences and Educational Challenges* (pp. 109-141). Chicago: University of Chicago Press.
- Buck, G. (2001). *Assessing Listening*. Cambridge: Cambridge University Press.
- Caine, R., N., & Caine, G. (1994). *Making connections: Teaching and the human brain*. Parsipany: Dale Seymour.

- Capps, R., Fix, M., Murray, J., Ost, J., Passel, J., & Herwanto, S. (2005). *The New Demography of America's Schools: Immigration and the No Child Left Behind Act* (pp. 1-41). Washington, D.C.: Urban Institute.
- Carlo, M. S., August, D., McLaughlin, B., Snow, C. E., Dressler, C. L., Lippman, D. N., et al. (2000). Closing the gap: Addressing the vocabulary needs of English language learners in bilingual and mainstream classrooms. *Reading Research Quarterly*, 39(2), 188 - 215.
- Carnevale, A. P. (2003). *Socio-economic status, race/ethnicity and selective college admissions*. New York: The Century Foundation.
- Carson, J. G., Chase, N. D., Gibson, S. U., & Hargrove, M. F. (1992). Literacy demands of the undergraduate curriculum. *Reading Research and Curriculum*, 31(4), 25 - 50.
- Cazden, C. (2001). *Classroom Discourse: The Language of Teaching and Learning*. Portsmouth, NH: Heinemann.
- Census, E. a. A. B. U. S. (Producer). (2006, June 12, 2010). Results from the 2006 American Community Survey. [Power point presentation]
- Census, U. S. (2007). *American Community Survey*. Retrieved from <http://www.census.gov/prod/2007pubs/acs-08.pdf>.
- Census, U. S. (2008). The 2008 Statistical Abstract. *The National Data Book*, from www.census.gov/compendia/stateb/2008/cats
- Census, U. S. (2010a). *American Community Survey, 2010 2005 - 2009 5 year Estimates*: U. S. Census Bureau.
- Census, U. S. (2010b). American Fact Finder Retrieved 12/31/2010, from [Http://factfinder/census.gov](http://factfinder/census.gov)

- Chanley-Wiik, D., Galin, J. R., Kasdof, K., & Haky, J. (2009). Combining chemistry and college writing: A new model for an honors undergraduate chemistry course. *Honors in practice*, 5, 77-96.
- Christian, D. (2000). *Advancing the Achievement of English Language Learners: A Research Perspective*. Paper presented at the Fourth Annual Clairborne Pell Education Policy Seminar, Brown University, Providence, R. I.
- . *The Condition of Education, 2005*. (2006). Washington, D. C.: U. S. Government Printing Office Retrieved from <http://nces.ed.gov//programs/coe/2005/section1/indicators05.asp>.
- Corbin, J. M., & Strauss, A. (2007). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (3rd ed.). Thousand Oaks: Sage.
- Corson, D. (1997). The Learning and Use of Academic English Words. *Language Learning*, 47, 671-718.
- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches*. Los Angeles: Sage.
- Crowley, S. (2003). The affordable housing crisis: Residential mobility of poor families and school mobility of poor children. *Journal of Negro Education*, 72(22-38).
- Cummins, J. (1981). The Role of Primary Language Development in Promoting Educational Success for Language Minority Students *Schooling and Language Minority Students: A Theoretical Framework* (pp. 3-49). Los Angeles: Evaluation, Dissemination and Assessment Center, California State University, Los Angeles.
- Cummins, J. (2008). BICS and CALP: Empirical and Theoretical Status of the Distinction. In N. Hornberger (Ed.), *Encyclopedia of Language and Education* (2nd ed., Vol. 2, pp. 71-84). New York: Springer Science and Business Media LLC.

- Dale, H. (1994). Collaborative writing instruction in one ninth grade classroom. *Journal of Educational Research*, 87(6), 334-344.
- Daniels, H., & Zemelman, S. (2004). *Subjects Matter: Every Teacher's Guide to Content-Area Reading*. Portsmouth, NH: Heinemann.
- Davidson, C., & Williams, A. (2001). Integrating language and content: Unresolved issues. In B. Mohan, C. Leung & C. Davidson (Eds.), *English as a second language in the mainstream* (pp. 51-70). Harlow: Pearson Education Ltd.
- Delgado-Gaitan, C. (1990). *Literacy for empowerment: The role of parents in children's education*. London: Falmer Press.
- Deutsch, M. (1960). The effects of motivational orientation upon trust and suspicion. *Human Relations*, 13, 123-139.
- Deutsch, M. (1962). Cooperation and trust: Some theoretical notes. In M. R. Jones (Ed.), *Nebraska Symposium on Motivation* (pp. 275-310). Lincoln: University of Nebraska Press.
- Duetsch, M. (1958). Trust and suspicion. *Journal of Conflict Resolution*, 2, 265-279.
- Dulay, H., & Burt, M. (1974). Natural Sequences in Child Second Language Acquisition. *Language Learning*, 24, 37-53.
- Fairlie, R. W. (2004). Race and the digital divide. *Contributions to economic analysis and policy* 3(1). Retrieved from <http://www.bepress.com/bejeap/contributions/vol3/iss1/art15>
- Fillmore, L. W., & Snow, C. E. (2005). What teachers need to know about language: Strategies for K-12 mainstream teachers. In P. A. Richard-Amato & M. A. Snow (Eds.), *Academic Success for English Language Learners* (pp. 47-75). White Plains: Longman.

Fisher, D., & Frey, N. (2008a). What Does It Take to Create Skilled Readers? Facilitating the Transfer and Application of Literacy Strategies. *Voices from the Middle*, 15(4), 16-22.

Fisher, D., & Frey, N. (2008b). *Word Wise and Content Rich, Grades 7-12: Five Essential Steps for Teaching Academic Vocabulary*. Portsmouth, NH: Heinemann.

Fisher, D., Frey, N., & Lapp, D. (2008). Shared Readings: Modeling Comprehension, Vocabulary, Text Structures, and Text Features for Older Readers. *The Reading Teacher*, 61(7), 548-556.

Flint, T. A., Zakos, P., & Frey, R. (2002). *Best practices in adult learning: A self-evaluation workbook for colleges and universities*. Dubuque: Kendall/Hunt.

Forsbach, T., & Pierce, N. (1999). *Factors related to the identification of minority gifted students*. Paper presented at the American Educational Research Association Annual Meeting, Montreal.

Freeman, D., & Freeman, Y. (2001). *Between Worlds: Access to Second Language Acquisition*, (2nd ed.). Portsmouth, NH: Heinemann.

Freeman, D., & Freeman, Y. (2008). *Closing the Achievement Gap for English Language Learners*

Freeman, D., & Freeman, Y. (2009a). *Academic Language for English Language Learners and Struggling Readers*. Portsmouth, NH: Heinemann.

Freeman, D., & Freeman, Y. (2009b). *Academic Language for English Language Learners and Struggling Readers: How to Help Students Succeed Across Content Areas*. Portsmouth, NH: Heinemann.

Freeman, Y., & Freeman, D. (2002). *Closing the Achievement Gap: How to Reach Limited Formal Schooling and Long-Term English Learners*. Portsmouth, NH: Heinemann.

- Frey, N., & Fisher, D. (2010). Identifying instructional moves during guided learning. *The Reading Teacher, 64*(2), 84-95.
- Fry, R. (2002). Latinos in higher education: Many enroll, too few graduate. Washington, D. C.: Pew Hispanic Center.
- Fry, R. (2004a). Latino youth finishing college: The role of selective pathways. Washington, D. C.: Pew Hispanic Center.
- Fry, R. (2004b). Youth Finishing College: The Role of Selective Pathways. Washington, D. C.
- Gamoran, A. (1989). Rank, performance, and mobility in elementary school grouping. *Sociological Quarterly, 30*, 109-123.
- Gamoran, A. (1992). Access to excellence: Assignment to honors English classes in the transition from middle to high school. *Education Evaluation and Policy Analysis, 14*, 185-204.
- Gándara, P., & Contreras, F. (2009). *The Latino education crisis: The consequences of failed social policies*. Cambridge: Harvard University Press.
- Gándara, P., O'Hara, S., & Gutiérrez, D. (2004). The changing shape of aspirations: Peer influence on academic behavior. In G. Gibson, P. Gándara & J. Koyama (Eds.), *School Connections: U. S. Mexican Youth, Peers, and School Achievement* (pp. 39-62). New York: Teachers College Press.
- Gándara, P., Rumberger, R., Maxwell-Jolly, J., and Callahan, R. (2003). English learners in California schools: Unequal resources; unequal outcomes *Education Finance and Policy analysis and Archives* (Vol. 3).
- García, O. (2009). *Bilingual Education in the 21st Century: A Global Perspective*. Malden, MA: Wiley-Blackwell.

- García, O., Kleifgen, J. A., & Flachi, L. (2008). *From English Language Learners to Emergent Bilinguals*. New York, NY: Teachers College.
- Gee, J. (2008). *Social Linguistics and Literacies: Ideology in Discourses* (3rd ed.). New York: Routledge.
- Geiser, S., & Santelices, V. (2006). The role of advanced placement and honors courses in college admission. In P. Gándara, G. Orfield & C. L. Horn (Eds.), *Expanding opportunities in higher education: Leveraging promise*. New York: State University of New York Press.
- Gibbons, P. (2002). *Scaffolding Language: Scaffolding Learning*. Portsmouth: Heinemann.
- Gibson, M., Bejinez, N., Hidalgo, N., & Rolon, C. (2004). Belonging and school participation: Lessons from a migrant student club. In M. Gibson, P. Gandara & J. Koyama (Eds.), *School Connections: U. S. Mexican Youth, Peers, and School Achievement* (Vol. 129-149). New York: Teachers College Press.
- Goddard, R. D. a. G., Y. L. (2001). A multilevel analysis of the relationship between teacher and collective efficacy in urban schools. *Teacher and Teacher Education*, 17, 807-818.
- Golden, D. (2006). *The price of admission: How America's ruling class buys its way into elite colleges and who gets left outside the gates*. New York: Crown.
- Goldenberg, C. (2008). Teaching English Language Learners: What the Research Does - and Does Not - Say. *American Educator*, 8-44.
- Goodman, Y. (2003). *Valuing Language Study: Inquiry into Language for Elementary and Middle Schools*. Urbana, IL: National Council of Teachers of English.

- Gottlieb, M. (2004). *English Language Proficiency Standards for English Language Learners in kindergarten through Grade 12*. Madison, WI: Wisconsin Department of Education.
- Gottlieb, M. (2006). *Assessing English Language Learners: Bridges from Language Proficiency to Academic Achievement*. Thousand Oaks, CA: Corwin Press.
- Graham, S., & Perin, D. (2007). *Writing next: Strategies to improve writing of adolescents in middle and high school*. Washington, D. C.: Carnegie Corporation of New York.
- Hand, B., Hohenshell, L., & Prain, V. (2004a). Exploring student responses to conceptual questions when engaged with planned writing experiences: A study with year ten science students. *Journal of Research in Science Teaching*, *41*(186-210).
- Hand, B., Hohenshell, L., & Prain, V. (2004b). Exploring students' responses to conceptual questions when engaged with planned writing experiences: A study with year ten science students. *Journal of Research in Science Teaching*, *41*, 186-210.
- Harklau, L. (2003). *Generation 1.5 Students and College Writing*. ERIC Digest.
- Haro, R., Rodriguez, G., & Gonzales, J. (1994). *Latino persistence in higher education: A 1994 survey of University of California and California State University Chicano/Latino students*. San Francisco: Latino Issues Forum.
- Hayes-Bautista, D. (2004). *La nueva California: Latinos in the golden state*. Berkley: University of California Press.
- Humphris, R. (2010). Developing students as writers through collaboration. *Changing English*, *17*(2), 201-214.
- Jiménez, R., Handsfield, L., & Fisher, H. (2008). Rethinking Cognitive Strategy Instruction and Multilingual Students: A Review and Critique. In K. Muktari & R. Sheorey (Eds.),

- Studies in First and Second Language Reading Strategies* (pp. 113-130). Norwood, MA: Christopher-Gordon.
- Johnson, D. W., & Johnson, R. T. (1987). *Learning together and alone*. Englewood Cliffs: Prentice Hall.
- Johnson, D. W., Johnson, R. T., & Smith, K. (2007). The state of cooperative learning in post-secondary and professional settings. *Educational Psychology Review*, 19, 15 - 29.
- Kagan, S. (1986). Cooperative Learning and Sociocultural Factors in Schooling *Beyond language: Social and cultural factors in schooling language minority students* (pp. 231-298). Los Angeles: Evaluation, Dissemination and Assessment Center.
- Kagan, S. (1995). We can talk: Cooperative learning in the Elementary ESL classroom. *ERIC Digest*, 1 - 6. Retrieved from
- Kagen, S. (1995). We can talk: Cooperative learning in the Elementary ESL classroom. *ERIC Digest*, 1 - 6. Retrieved from
- Knudson, R. E. (1989). Effects of instructional strategies on children's informational writing. *Journal of Educational Research*, 83(2), 91-96.
- Koffka, K. (1935). *Principles of Gestalt Psychology*. New York: Harcourt, Brace, and World.
- Krashen, S. (1985). *Inquiries and Insights*. Haywood, CA: Alemany Press.
- Krashen, S. (1991). Bilingual Education: A Focus on Current Research. 3: National Clearinghouse for Bilingual Education.
- Krashen, S. (2003). *Explorations in language acquisition and use*. Portsmouth, NH: Heinemann.
- Krashen, S., & Terrell, T. (1983). *The Natural Approach: Language Acquisition in the Classroom*. Hayward, CA: Alemany Press.

- Kuh, G. D., Kinzie, J., Schuh, J. H., & Whitt, E. J. (2005). *Student success in college: Creating conditions that matter*. San Francisco: Jossey-Bass.
- Lareau, A. (1989). *Home advantage social class and parental intervention in elementary education*. London: Falmer Press.
- Lemmers, W. L., & Murphy, J. J. (2002). A profile of teaching techniques used in the university classroom: A descriptive profile of U. S. public universities. *Active Learning in Higher Education*, 3(1), 54-67.
- Lewin, K. (1935). *A dynamic theory of personality*. New York: McGraw-Hill.
- Lewin, K. (1948). *Resolving Social Conflicts*. New York: Harper.
- Lucas, S. R. (1999). *Tracking inequality: Stratification and mobility in American high schools*. New York: Teachers College Press.
- Manning, D. A., & Fennacy, J. W. (1993). Bringing Children to Literacy Through Shared Reading. In B. Harp (Ed.), *Bringing Children to Literacy: Classrooms at Work*. Norwood, MA: Christopher-Gordon Publishers.
- Marsh, H., & Kleitman, S. (2002). Extracurricular activities: The good, the bad, and the nonlinear. *Harvard Educational Review*, 72(4), 464-511.
- Mason, B. J., & Bruning, R. (2001). Providing feedback in computer-based instruction: What the research tells us. Lincoln: Center for Instructional Innovation University of Nebraska.
- Maxwell-Jolly, J., Gándara, P., & Benavídez, L. M. (2007). Promoting Academic Literacy Among Second English Language Learners: A Synthesis of Research and Practice (pp. 27). David, CA: The University of California Linguistic Minority Research Institute.
- Meltzer, J., & Hamann, E. (2005). Meeting the Literacy Development Needs of Adolescent English Language Learners Through Content-Area Teaching: Part Two: Focus on

Classroom Learning and Teaching. Providence, RI: The Education Alliance at Brown University.

- Menken, K., & Kleyn, T. (2010). The long-term impact of subtractive schooling in the educational experiences of secondary English learners. *International Journal of Bilingual Education and Bilingualism*, 1-19.
- Mickelson, R. A. (2001). Subverting Swann: First and second generation segregation in the Charlotte-Mecklenberg Schools. *American Educational Research Journal*, 38(2), 215-252.
- Moreno, R. (2004). Decreasing the cognitive load for novice students: Effects of explanatory versus corrective feedback in discovery-based multimedia *Instructional Science*, 32, 99 - 113.
- Morgan, B. M., Rosenberg, G. P., & Wells, L. (2010). Undergraduate Hispanic Student Response to Cooperative Learning. *College Teaching Methods and Style*, 6(1), 7 - 12.
- Moustakas, C. (1994). *Phenomenological research methods*. Thousand Oaks: Sage.
- Muijs, D. (2004). *Doing quantitative research in education with SPSS*. Los Angeles: Sage.
- . *The Nation's Report Card*. (2007). Washington, D. C.: Retrieved from http://NCES.ed.gov/nationsreportcard/nies_2007/n0029.asp.
- National Institute of Child Health and Human Development, N. (2000). *Report of the National Reading Panel. Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for instruction*. . Washington, DC: U.S. Government Printing Office.
- . National Survey of Latinos: Education. (2004). Washington D. C.: Pew Hispanic Center/ Kaiser Family Foundation

NCHEMS. (2009), from <http://higheredinfo.org>

- Nicol, D. (2009). Assessment for learner regulation: Enhancing achievement in the first year using learning technologies. *Assessment and Evaluation in Higher Education*, 34(3), 335-352.
- Nicol, D., & Macfarlane-Dick, D. (2006). Formative assessment and self-regulated learning: A model and seven principles of good feedback practice. *Studies in Higher Education*, 31(2), 199-216.
- Ogbu, J. (1991). Immigrant and Involuntary Minorities in Comparative Perspective. In M. Gibson & J. Ogbu (Eds.), *Minority Status and Schooling: A Comparative Study of Immigrant and Involuntary Minorities*. (pp. 3-33). Garland Publishing Co.: New York.
- Ogbu, J. U. (1992). Adaptations to minority status and impact on school success. *Theory into Practice*, 31(4), 287-295.
- Olsen, L. (2010). *Reparable harm: Fulfilling the unkept promise of educational opportunity for California's long term English learners*. Long Beach, CA: Californians Together.
- Olsen, L., & Jaramillo, A. (1999). *Turning the Tides of Exclusion: A Guide for Educators and Advocates for Immigrant Students*. Oakland: California Tomorrow.
- Ong, P., & Terriquez, V. (2008). Can multiple pathways offset inequalities in the urban spatial structure? In J. Oakes & M. Saunders (Eds.), *Beyond tracking: Can multiple high school pathways prepare all students for college, career and civic participation?* Cambridge: Harvard Education Press.
- Padillo, A. M., & Gonzalez, R. (2001). Academic performance of immigrant and U. S. born Mexican heritage students: Effects of schooling in Mexico and bilingual/English language instruction. *American Educational Research Journal*, 38(1), 727 - 742.

- Paz, D. L. (2002). Explicitly teaching strategies, skills, and knowledge: Writing instruction in middle school classrooms. *Journal of Educational Psychology, 94*(4), 687-698.
- Perreira, K. M., Fuligni, A., & Potochnik, K. S. (2010). Fitting in: The roles of social acceptance and discrimination in shaping academic motivations of Latino youth in the U. S. Southeast. *Journal of Social Issues, 66*(1), 131-153.
- Phinney, J. (1989). Stages of ethnic identity development in minority group adolescents. *Journal of Early Adolescence, 9*, 34-49.
- Phinney, J. S., & Hass, K. (2003). The process of coping among ethnic minority first generation college students: A narrative approach. *Journal of Social Psychology, 143*(6), 707-726.
- Plala, M. (1995). Success of Hispanic college students on a writing examination. *The Journal of Education Issue of Language Minority Students, 15*, 1-12.
- Publication Manual of the American Psychological Association.* (2010). (6 ed.). Washington, D. C.: American Psychological Association.
- Rainwater, L., & Smeeding, T. (2003). *Poor kids in a rich country*. New York: Sage Foundation.
- Ritchie, S. M., & Rigano, D. L. (2007). Writing together metaphorically and bodily side-by-side: an inquiry into collaborative academic writing. *Reflective Practice, 8*(1), 123-135.
- Roberge, M. (2002). California's generation 1.5 immigrants: What experiences, characteristics, and needs do they bring to their English classes? *The CATESOL Journal, 14*(1), 107 - 129.
- Rumbaut, R. G., & Ima, K. (1988). The adaptation of Southeast Asian refugee youth: A comparative study San Diego: Office of Resettlement.
- Rumberger, R. W. (2003). The causes and consequences of student mobility. *Journal of Negro Education, 72*(6-21).

- Scarella, R. C. (2003). *Accelerated Academic English: A Focus on the English Language Learner*. Oakland: Regents of the University of California.
- Schleppegrell, M., & Oliveira, L. (2006). An Integrated Language and Content Approach for History Teachers. *Journal of English for Academic Purposes, 5*, 254-268.
- Schleppegrell, M. J. (2004). *The Language of Schooling: A Functional Linguistics Perspective*. Mahwah, N.J: Lawrence Erlbaum.
- Schunk, D. H., & Swartz, C. W. (1993). Goals and progress feedback: Effects on self efficacy and writing achievement. *Contemporary Educational Psychology, 18*, 337-354.
- Schunk, D. H., & Swartz, C. W. (2003). Goals and process feedback: Effects on self-efficacy and writing achievement. *Contemporary Educational Psychology, 18*(3), 337-354.
- Shanahan, T., & Shanahan, C. (2008). Teaching disciplinary literacy to adolescents: Rethinking content area literacy. *Harvard Educational Review, 78*(1), 40-60.
- Shute, V. (2008). Focus on Formative Feedback. *Review of Educational Research, 78*(1), 153-189.
- Shute, V. J. (2008). Focus on formative feedback. *Review of Educational Research, 78*(1), 153 - 189.
- Singhal, M. (2004). Academic writing and Generation 1.5: Pedagogical goals and instructional issues in the college composition classroom. *The Reading Matrix, 4*(3), 1-13.
- Slavin, R., & Cheung, A. (2004). Effective reading programs for English language learners: A best-evidence synthesis. Retrieved 3/25/04, 2004, from <http://www.csos.jhu.edu/crespar/techReports/Report66.pdf>

- Slavin, R. E., Stevens, R. J., & Maden, N. A. (1988). Accommodating student diversity in reading and writing instruction: A cooperative learning approach. *Remedial and Special Education, 9*(1), 60-66.
- Solarzano, D., & Orneles, A. (2004). A critical race analysis of Latina/o African American advanced placement enrollment in public high schools. *High School Journal*(February/March), 15-26.
- Solorzano, D. a. O., A. (2004). A critical race analysis of Latina/o African American advanced placement enrollment in public high schools. *High School Journal*(February/March), 15-26.
- South, S., Crowder, K., & Trent, K. (1998). Children's residential mobility and neighborhood environment following parental divorce and remarrige *Social Forces, 77*, 667-693.
- South, S. K., Baumer, E. P., & Lutz, A. (2003). Interpreting community effects on youth educational attainment. *Youth and Society, 35*, 3-36.
- Spradley, J. P. (1980). *Participant Observation*. Toronto: Wadsworth Thomson Learning.
- Steele, C. (1997). A threat in the air: How stereotypes shape intellectual identity and performance. *American Psychologist, 52*, 613-629.
- Steinberg, L. (1996). *Beyond the classroom: Why school reform has failed and what parents need to do*. New York: Simon & Schuster.
- Stoops, N. (2004). *Educational attainment in the United States: 2003 Population Characteristics*. U. S. Census Bureau Retrieved from www.census.gov/prod/2004pubs/p20-550.pdf.
- Suarez-Orozco, C., & Suarez-Orozco, M. (1995). *Transformations: Migration, family life, and achievement motivation among Latino adolescents*. Stanford: Stanford University Press.

- Suárez-Orozco, C., Suárez-Orozco, M., & Todorova, I. (2008a). *Learning a new land: immigrant students in American society*. Cambridge, MA: Harvard University Press.
- Suárez-Orozco, C., Suárez-Orozco, M. M., & Todorova, I. (2008b). *Learning a new land: Immigrant students in American society*. Cambridge, MA: The Belknap Press of Harvard University.
- Tamayo, J. (2009). *My Baby Lives on Southmost Road*. The Bongo Dogs. Brownsville.
- Tappan, M. B. (1998). Sociocultural psychology and caring psychology: Exploring Vygotsky's 'hidden curriculum'. *Educational Psychologist*, 33(1), 23-33.
- Thomas, W., & Collier, V. (1997). *School Effectiveness for Language Minority Students* (Vol. 1997). Washington, DC: National Clearinghouse of Bilingual Education.
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *The Journal of Higher Education*, 68, 599-623.
- Useem, E. L. (1992). Middle schools and math groups: Parents' involvement in children's placement. *Sociology of Education*, 65, 263-279.
- UTBTSC. (2011). Fast Facts and History, 2011, from www.utb.edu
- van Lier, L. (2004). *The ecology and semiotics of language learning*. Dordrecht: Kluwer Academics.
- Vygotsky, L. (1978). *Mind in Society: The Development of Higher Psychological Processes*. Cambridge, MA: Harvard University Press.
- Vygotsky, L. S. (1987). *The collected works of L. S. Vygotsky*. New York: Plenum.
- Walqui, A. (2000). *Strategies for Success: Engaging Immigrant Students in Secondary Schools* (pp. 1,2). Washington, DC: Center for Applied Linguistics.

- Walqui, A. (2006). Scaffolding instruction for English language learners: A conceptual framework. *The International Journal of Bilingual Education and Bilingualism*, 9(2), 159-180.
- Wells, G., & Chang-Wells, G. (1992). *Constructing Knowledge Together*. Portsmouth, NH: Heinemann.
- Wertsch, J. (1991). *Voices of the Mind*. Cambridge, MA: Harvard University Press.
- Wiley, T. G., Lee, J. S., & Rumberger, R. W. (2009). *The education of language minority immigrants in the United States*. Bristol: Multilingual Matters.
- Wilhelm, T., Carmen, D., & Reynolds, M. (2002). *Connecting kids to technology*. Baltimore: Annie E. Casey Foundation.
- Wilson, W. J. (1996). *When work disappears: The world of the urban poor*. New York: Vintage Press.
- Wlodkowski, R. J. (2008). *Enhancing adult motivation to learn: A comprehensive guide to teaching all adults* (3rd ed.). San Francisco: Jossey-Bass.
- Wood, D., Bruner, J., & Ross, G. (1976). The role of tutoring in problem solving. *Journal of Child Psychology and Psychiatry*, 17(2), 89 - 100.
- Woolfolk, A. E., Rosoff, B., and Hoy, W. K. (1990). Teachers' sense of efficacy and their beliefs about managing students. *Teaching and Teacher Education*, 6, 137-148.
- York-Anderson, D. C., & Bowman, S. (1991). Assessing the college knowledge of first generation and second generation college students. *Journal of College Student Development*, 32(2), 116-122.

Zehler, A., Fleischman, H., Hopstock, P., Stephenson, T., Pendizick, M., & Sapruu, S. (2003).

Descriptive Study of Services to LEP Students and LEP Students with Disabilities

Volume I Research Report. Washington, D.C.: OELA.

Zimmerman, B. J., & Kitsantas, A. (2002). Acquiring writing revision and self-regulatory skills

through observation and emulation. *Journal of Educational Psychology*, 94(4), 660-668.

Appendix A:

**Undergraduate Student Survey: Cooperative Learning
Spring 2011**

I. Experience with Cooperative Learning: Please check all that apply.

I have talked to other classmates about cooperative learning.

I have read articles about cooperative learning.

I have discussed cooperative learning with other classmates and tried some of the ideas.

I have participated in cooperative learning activities in this class.

II. Please indicate your agreement with each of the following statements by circling your choice:

1. I believe that cooperative learning is an effective instructional technique in most content areas.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. I believe that cooperative learning increases student participation in learning activities.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. I believe that cooperative learning improves student communication and decision making skills.

Strongly Agree Agree Neutral Disagree Strongly Disagree

4. I believe that cooperative learning encourages and improves the performance of high ability students.

Strongly Agree Agree Neutral Disagree Strongly Disagree

5. I believe that cooperative learning encourages and improves the performance of average ability students.

Strongly Agree Agree Neutral Disagree Strongly Disagree

6. I believe that cooperative learning encourages and improves the performance of low ability students.

Strongly Agree Agree Neutral Disagree Strongly Disagree

7. I believe that using cooperative learning is an efficient teaching technique.

Strongly Agree Agree Neutral Disagree Strongly Disagree

8. I plan to increase my use of cooperative learning by organizing a cooperative study group.

Strongly Agree Agree Neutral Disagree Strongly Disagree

9. Rewarding individual performance based on group success is an equitable method of grading.

Strongly Agree Agree Neutral Disagree Strongly Disagree

10. I plan to make use of future opportunities for additional training in cooperative learning.

Strongly Agree Agree Neutral Disagree Strongly Disagree

11. How would you rate your theoretical knowledge regarding cooperative learning?

Very High High No Opinion Low Very Low

12. How would you rate your knowledge regarding the effective implementation of cooperative learning as a model of teaching?

Very High High No Opinion Low Very Low

III. Please circle your response to each statement.

1. As an “expert” for part of the material we need to learn, makes me prepare more carefully.

Strongly Agree Agree Neutral Disagree Strongly Disagree

2. In a jigsaw activity I listen carefully to my peers to learn the material they are “experts” in.

Strongly Agree Agree Neutral Disagree Strongly Disagree

3. In a jigsaw activity I gain an understanding of the material through discussion with my peers.

Strongly Agree Agree Neutral Disagree Strongly Disagree

Appendix B: Reflection Questions and Demographic Questions for Post-Test Survey

1. Describe your experiences in cooperative learning groups in this class.

2. In what ways did working on writing skills in cooperative learning groups help you to improve your writing skills?

3. Was the feedback that you received about your writing helpful? If yes, in what ways did the individualized feedback that you received about your writing help you to improve your writing skills?

4. Which activities, examples, and opportunities to practice specific writing skills in class helped you to improve your writing skills? How?

Demographic Information

Check any of the following that is true for you:

Age:

- I am under 19 years old.
- I am between 19 and 24 years old.
- I am between 25 and 29 years old.

___ I am between 30 and 45 years old

___ I am over 45 years old.

Race/Ethnicity:

___ I am Hispanic.

___ I am Caucasian.

___ I am African American.

___ None of these categories accurately describe my race/ethnicity.

Primary Language

___ My primary language when I started school in the United States was English.

___ My primary language when I started school in the United States was Spanish

___ My primary language when I started school in the United States not English or Spanish.

Please list your primary language: _____

Education

___ I started kindergarten in the United States

___ I started school in the United States after kindergarten. Please list the grade that you started attending school in the United States. _____

College

___ I am in my first year of college.

___ I am in my second year in college.

___ I have completed two years of college.

___ I have a baccalaureate degree, and am taking the courses needed for a teaching certificate.

___ I am enrolled in one or more developmental class. Please list the subject(s).

Current Estimated Grade Point Average

3.5 or above

3.0 to 3.4

2.5 to 2.9

2.0 to 2.4

Below 2.0

I am currently on academic probation.

Employment

I have a part time job.

I have a full time job.

Children

I have children living at home. How many? _____

Appendix C: Interview Questions

Demographics:

Gender:

Age:

Marital status:

Children:

Employment:

Hours of college completed:

Full or part-time college enrollment:

Primary language when first entered public school in U.S.:

Grade when entered public school in U. S.:

1. Do you feel that you have had a successful college experience so far? What factors have affected your college experience?
2. Did you have to take any developmental classes when you started college? If yes, tell me about this.
3. What skills have you found to be most important for college success?
4. Do you think that you entered college with the skills needed for college success?
5. What classes have you taken in college that have helped you to gain the skills needed for college success? How?
6. Do you prefer classes that use a lecture/note-taking format or do you prefer classes that have the students engage in small and whole group discussion? Why?
7. Estimate the percentage of your college classes that have used a primarily lecture format and the percentage of your college classes that included opportunities to interact with classmates to solve problems.
8. In those classes that included interactive problem solving, about what percentage of time was spent overall on interactive problem solving?
9. What kind of writing assignments are usually given in your classes?

10. Do professors generally provide you with helpful feedback to improve your academic writing?
What kinds of feedback do you generally receive?
11. Do you generally get to know the other students in your classes? If so, what kinds of activities do you engage in with other students in the class?
12. Do you think that your writing skills have improved due to the supports you received in EDUC 2301? Why or Why not?
13. What aspects of EDUC 2301 have been most helpful in improving your academic writing skills?
14. What do you plan to teach? Are there any techniques or teaching strategies that you have experienced in EDUC 2301 that you plan to use in your own classes when you are a teacher?
15. Do you think that you will maintain any friendships with other students that you met in EDUC 2301?
16. What suggestions do you have for ways to improve EDUC 2301?