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Co-Teaching for English Learners

Abstract

This action research study investigated the effects of a co-teaching model on English learners' academic performance and confidence levels in the general education classroom in a public middle school in Northwest Iowa. The research participants were five seventh-grade English learners with varying English proficiency levels. Students completed a survey before and after a co-teaching model was implemented to determine their confidence level in a general education social studies classroom. Using data from content and cognitive skill rubrics, a comparison of growth was made between a semester without a co-teaching model and a second semester with a co-teaching model. Findings of the study did not show a significant difference in English learners' confidence or academic performance after a co-teaching model was implemented.

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Action Research Report Submitted in Partial Fulfillment of the Requirements for The Degree of Master of Education

Co-Teaching for English Learners

By

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B.A. Dordt College, 2014

Action Research Report
Submitted in Partial Fulfillment
of the Requirements for The
Degree of Master of Education

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Abstract

This action research study investigated the effects of a co-teaching model on English learners' academic performance and confidence levels in the general education classroom in a public middle school in Northwest Iowa. The research participants were five seventh-grade English learners with varying English proficiency levels. Students completed a survey before and after a co-teaching model was implemented to determine their confidence level in a general education social studies classroom. Using data from content and cognitive skill rubrics, a comparison of growth was made between a semester without a co-teaching model and a second semester with a co-teaching model. Findings of the study did not show a significant difference in English learners' confidence or academic performance after a co-teaching model was implemented.

Key Words: Co-teaching, English learner

Schools in the United States are becoming more diverse every year. According to the National Center for Education Statistics (2021), minorities make up about 55% of the total enrollment in public schools K-12. Along with an increase in diversity, schools have an increase of English learners. In the fall of 2019, more than five million English learners made up 10.4% of the total enrollment in public schools (National Center for Education Statistics, 2019).

Throughout the years, there has been much debate on how best to serve English learners due to conflicting research, diversity within the English learner population, and key issues associated with teaching English learners in content classrooms (Calderon, et.al, 2011; Carrier, 2015). While there are different programs in place to support English learners outside of the content classroom, these programs do not fully address the fact that English learners will spend most of their day in general content classrooms such as math, science, and social studies.

According to Carrier (2005), there are three underlying issues that affect the education of English learners that content teachers and administration need to address. The first issue is the amount of time required to acquire a second language. In general, English learners develop conversational English quickly, but academic English requires more time and is the language English learners need to succeed in academic settings such as school. Based on studies, Collier (1995) “found that in U.S. schools where all instruction is given through the second language (English), non-native English speakers with no schooling in their first language take 7-10 years or more to reach age and grade-level norms of their native English-speaking peers” (p. 7). Because of this information, Carrier (2005) argued that “we can help our ELLs by providing extra support in developing not only the content specific vocabulary, but also the academic sentence structures” (p. 6). The second issue affecting the education of English learners is that English learners are learning a new language in an unfamiliar setting while also learning

academic content. “ELLs are moving between the two worlds of their ESL classroom and their content classrooms, and they have to work harder, and need more support than the average native English-speaking student who has an age-appropriate command of the English language” (Carrier, 2005, p. 6). The third issue is using multiple modes for creating comprehensible input and output. Because English learners are developing their English proficiency, they may not be able to understand all the information presented to them in the content classroom because it is presented orally and/or written. Addressing these three issues can help schools develop a program that will support English learners in content classrooms.

One possible solution to support English learners’ language development and academic performance in the general content classroom is to integrate a co-teaching model. In a co-teaching model, “two or more educators possessing distinct sets of skills work in a co-active and coordinated fashion to jointly teach academically and behaviorally heterogeneous groups of students in integrated educational settings” (Bauwens & Hourcade, 1995, as cited in Walther-Thomas, 1997, p. 396).

According to Cook & Friend (1995), there are four rationales for why schools should implement a co-teaching model. First, it increases the instructional options for all students. The specialist teacher often brings new strategies and ideas that benefit English learners along with other struggling learners who are not identified as needing special education services and/or English services. Second, co-teaching can improve program intensity and continuity because “the combination of two teachers reduces the student-teacher ratio and provides opportunities for greater student participation and engaged time” (Cook & Friend, 1995). Third, co-teaching can reduce the stigma associated with leaving the content classroom to receive specialized services. With co-teaching, students receive specialized support in the classroom alongside their peers.

Finally, Cook & Friend (1995) describe how co-teaching can increase professional support for content teachers during instruction and after instruction. During instruction, partners can relieve one another. After instruction, teachers can reflect on the best strategy to support the needs of students.

Numerous studies have addressed and established a positive relationship between the co-teaching model, student academic achievement, and the social well-being of students (Boland et al, 2019; Chanmugam & Gerlach, 2013; Walther-Thomas, 1997). These studies, along with other research, support the idea that the co-teaching model should be implemented to support English learners in a content classroom such as social studies.

Purpose of the Study

The purpose of this study is to determine the effects of the co-teaching model on English learners' academic performance and confidence levels in the general education classroom. The following research questions were addressed in this study:

- 1) What is the effect on academic classroom performance among English learners in the general education content class using the co-teaching model vs a general education content classroom not utilizing the co-teaching model?
- 2) What is the effect on confidence levels among English learners in a general education classroom using the co-teaching model vs a general education class not utilizing the co-teaching model?

Definition of Terms

The following definitions will be used for the purpose of this study and unless otherwise noted, are the definitions of the author.

Bilingual Education is defined as teaching academic content in two languages: native and second language.

Cognitive Skills are defined as “interdisciplinary competencies that require higher order thinking” (Summit Learning, 2022).

Co-teaching is defined as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students in a single physical space” (Cook & Friend, 1995).

English Immersion is defined as a program for English learners in which the native language is not used for instruction. The goal of this program is proficiency in oral and written language.

English Language Learners are students whose primary language is not English.

ESL is defined as “instruction focused on building oral and written English language proficiency” (Sugarman, 2018).

Newcomer Instruction is defined “certain individual classes or full programs of study [that] are designed specifically for newly arrived ELs (typically in secondary school). These often focus on basic English language and math skills, and they may include remedial or grade-level academic content. Some newcomer programs include instruction in the native language” (Sugarman, 2018).

Push-in, Pullout (PIPO) model is defined as a model where “children are removed from the general education classroom by a specialist for the purpose of receiving specialized instruction of some sort” (DeFrance Schmidt, 2008).

Sheltered English Instruction is defined as “content classes designed to make grade-level academic content comprehensible to ELs. These classes integrate language and content instruction” (Sugarman, 2018).

SIOP (Sheltered Instruction Observation Protocol) is defined as “an empirically validated model of sheltered instruction designed to make grade-level academic content understandable for English learners while at the same time developing their academic English language proficiency” (Echevarria, et. al, 2010).

Structured English Immersion is defined “a program model to provide ELs intensive instruction in English language skills for a considerable portion of the school day prior to transitioning into general education classes” (Sugarman, 2018).

Literature Review

To support the growing number of English learners, schools across the country have implemented a variety of models such as bilingual education, newcomer instruction, English immersion, and English-instruction (such as push-in, pullout) with varying success. The most common model is PIPO (push-in, pull out). With the PIPO model, “children are removed from the general education classroom by a specialist for the purpose of receiving specialized instruction of some sort” (DeFrance Schmidt, 2008, p. 6). While this model supports the

linguistic needs of English learners, it has introduced other concerns such as the creation of a parallel education separate from non-English learners, decreased exposure to academic language, and decreased interactions with peers (Williams & Ditch, 2019, p. 21).

While English learners have always been present in American schools, the support, programs, and educational laws associated with English learners have developed over time. When English learners first enrolled in schools in the early 1900s, there were “sink or swim” policies. According to Ruiz Bybee et al. (2014), these policies focused on using only English to instruct students and keeping English learners in the general classroom without the necessary support such as scaffolds, differentiations, or language instruction. What followed were several laws that focused on protecting and supporting English learners. One of the first was *Meyer v. Nebraska* (1923), which “invalidated a Nebraska law banning the teaching of foreign languages to schoolchildren, finding that the law violated the Fourteenth Amendment’s due process clause” (Bernstein, 2009). In other words, this law protected the teachers’ rights and parents’ wishes to use a foreign language in the classroom.

In 1972, ASPIRA of New York, a community-based Hispanic educational advocacy group, sued the Board of Education of the City of New York. ASPIRA of New York claimed that, as a result of language barriers, many Puerto Rican children of limited English proficiency (LEP), were prevented from fully participating in the instructional program of the public schools (Santiago Santiago, 1986, p. 149).

This lawsuit (*ASPIRA v. Board of Education*) led to the ASPIRA of New York Consent Decree which established the right for English learners to receive bilingual education. While there were other laws that expanded the protection and rights of English learners, the case of *Lau*

v. Nichols is one of the most well-known and influential cases. The landmark case of *Lau v. Nichols* (1974) ruled the following:

that children who did not understand the language of instruction were being denied equal treatment in the school system. This decision significantly reduced the use of “sink or swim” approach to education for ELLs and helped bring about further legislation to ensure that ELLs received services to help them succeed” (Crawford, 1999, as cited by Kim et al., 2015, p. 239).

After *Lau v. Nichols*, other acts, such as the Equal Education Opportunities Act and Every Student Succeeds Act, have created requirements for EL equity such as addressing and reporting English proficiency rates. “Under ESSA, schools cannot receive a high rating if one of their subgroups is failing across the board—which is often the case with ELs” (Williams & Ditch, 2019, p. 20). Because of these acts and other laws, schools are required to implement programs and supports that meet the needs of their English learners.

As a result of educational laws, there are different types of programs in place across the country for English learners. According to Sugarman (2018), under each type there are different models. The first type, English-only instruction, is the most common type. This type focuses on English language development and includes ESL (instruction focused on building oral and written English language proficiency), sheltered English instruction (content classes designed to make content available to students), newcomer instruction (classes or full programs focused on basic English and math skills), and structured English immersion (a model that provides intensive instruction in English prior to moving to the general education classes). Common terms associated with English-only instruction are pull-out, classroom ESL, and push in.

The second type is dual language education. In this model, the goals are “for students to develop high levels of oral and written proficiency in English and a partner language, academic content knowledge, and cross-cultural competence” (Sugarman, 2018). Within this type, there are two models (developmental bilingual and two-way immersion programs, that enroll English learners.) In developmental bilingual, all students are English learners who have a common native language while two-way immersion has a balance of English learners and non-English learners.

The third type, transitional bilingual education, “focuses on using students’ native languages as a foundation for English learning” (Sugarman, 2018). This model has specific characteristics such as a focus on English with support in the native language, native language usage decreases over time, the starting point and length varies based on grade-level, English learners are not integrated with non-English learners, and as English learners develop their proficiency, their enrollment in the general education classrooms increases (Sugarman, 2018). The types and models of programs vary greatly based on staffing, number of English learners enrolled, and district goals for English learners.

While these types and models of programs provide support for English learners, the achievement gap between English learners and their counterparts continues to grow. According to the U.S. Department of Education, “In 2015-16, 84 percent of students nationwide graduated from high school on time. For ELs the rate was 67 percent, up from 57 percent in 2010-11, but well below the rate for non-ELs (85 percent)” (2016). According to the Iowa Department of Education State summary for 2022, 20.81 percent of ELs are meeting English Language Arts proficiency achievement benchmarks and 20.97 percent of ELs are meeting mathematics

proficiency achievement benchmarks (2022). Based on this data, the current programs in place are not preparing or supporting English learners effectively.

According to Platt et al. (2003), “a number of social forces have combined to create a favorable climate for inclusion over the past quarter century; a redefinition and expansion of the term special needs student, a rise in dropout rates, and a great number of minority student” (p. 107). Due to these changing forces, schools across the country are shifting away from traditional English-only methods to models that promote inclusive education. Theoharis and O’Toole (2011) define inclusive education as:

Providing each student, the right to an authentic sense of belonging to a school classroom community where difference is expected and valued. Rethinking school structures (i.e., student placement, teacher placement, and coteaching) along with bolstering instructional techniques (i.e., ESL methods community building, differentiation) make this possible. (p. 648)

One result of inclusive education is a shift towards a co-teaching model. Cook and Friend (1995) define co-teaching as “two or more professionals delivering substantive instruction to a diverse, or blended, group of students, in a single physical space” (p. 2). Co-teaching requires at least two professionals who are both actively engaged in the creation and delivery of instruction. Co-teaching not only supports teachers by offering shared responsibility and collaboration, but more importantly, supports students. Co-teaching increases instructional opportunities for all students, improves program intensity and continuity for students, and reduces stigma for students who receive additional services (Cook & Friend, 1995). These benefits are supported by Walther-Thomas’ (1997) study whose purpose was to “investigate the emerging benefits and persistent problems that 23 school teams encountered as they implemented inclusive special

education models. The teams used co-teaching as an integral part of their service delivery models” (p. 396). 119 teachers and 24 administrators participated in at least one or more years of data. According to Walther-Thomas (1997),

Throughout the study, participants reported many benefits for students with disabilities, their general education classmates, and the participants themselves. These benefits related to various dimensions of student performance, professional performance, and school culture. In general, the benefit themes presented in this section grew stronger over time. These themes reflected broad-based support from both teacher and administrator participants. Four major benefits were identified for students with disabilities: positive feelings about themselves as capable learners, enhanced academic performance, improved social skills, and stronger peer relationships. (p. 399)

According to Hurd and Weilbacher (2017), other benefits of co-teaching for students “include more opportunities for small groups and individualized instruction or re-teaching of concepts to students who may be struggling”, as well as “flexibility by providing choices of leaders for students to whom they could go for help”, increased engagement, and improved behavior (p. 8). In a study conducted by Boland et al. and completed in 2018, “results indicated that student who were taught by the co-teaching method (experimental group) received higher grades in total compared with students who were taught by one instructor (control group). Because of co-teaching, EFL students who were exposed to several strategies showed significant enhancement in their overall academic performance” (2019, p. 98).

Most literature on co-teaching is focused on collaboration between a content teacher and a special education teacher. Even though much of the research is focused on special education, the case can be made that similar results with English learners. According to Vaughn, Elbaum,

Schumm, and Hughes (1998), “co-teaching seems to have a positive impact on reading achievement. They also found a positive relationship between co-teaching and more positive social relationships for students in Special Education” (as cited by Pappamihiel, 2012, p. 4). This positive relationship was also presented in a study conducted by Walther-Thomas (1997) where “teachers noted that many identified students developed better attitudes about themselves and others” (p. 399). This positive relationship was due to the implementation of inclusive programs versus pullout models. Students were immersed in the general content classroom with support from a content teacher and specialist. According to a study on implementing collaborative teaching to increase ELL student learning by York-Barr et al. (2007), “all participating teachers stated that small group instruction, made possible by coteaching, was the primary advantage of the collaborative instructional models. Small group instruction allowed more individualized attention and differentiated instructional support for students” (pp. 319-320). This report supports the idea that ELs can receive individualized support within a general education classroom. Students do not need to be pulled out of the classroom to receive specialized support from an EL instructor. Other research has also found that co-teaching supports academic as well as social aspects of the classroom (Mastropieri et al., 2005, as cited by Pappamihiel, 2012, p. 12).

In summary, data has established that the English learner population in the United States has and will continue to increase across the United States. The co-teaching model can be one way to enhance instruction for English and non-English learners. While there is some research focused on co-teaching and English learners, there is not enough to establish a clear correlation between co-teaching and academic classroom performance and confidence level among English learners. This study will focus on determining the effects of the co-teaching model on English learners’ academic performance and confidence level in the general education classroom.

Methods

Participants

The research participants were five English learners in a seventh-grade social studies classroom from a public K-12 community school in the Midwest during the 22-23 school year. Three participants were male, and two participants were female. Participants' detailed domain descriptions can be found in Appendix A.

Participant 1, male, has been in the school district since the 21-22 school year (6th grade). According to the English Language Proficiency Assessment (ELPA21), he is a progressing English learner. Participant 2, male, has been in the school district since the 18-19 school year (3rd grade). According to the English Language Proficiency Assessment (ELPA21), he is a progressing English learner. Participant 3, male, has been in the school district since the 15-16 school year (Kindergarten). According to the English Language Proficiency Assessment (ELPA21), he is a progressing English learner. Participant 4, female, has been in the school district since the 16-17 school year (1st grade). According to the English Language Proficiency Assessment (ELPA21), she is a progressing English learner. Participant 5, female, has been in the school district since the 19-20 school year (4th grade). According to the English Language Proficiency Assessment (ELPA21), she is a progressing English learner.

Materials

For this study, a survey (see Appendix B) created by the researcher, was used to determine student's confidence level in a classroom with and without a co-teaching model and LIEP instructor. Content rubrics, based on Iowa Core Standards (see Appendix C), and created by the content teacher were used to measure academic performance. Cognitive skills rubrics (see

Appendix D) provided by Summit Learning, the school's online learning platform, were also used to measure academic performance and growth.

Design

This quasi-experimental study measured the effects of the co-teaching models on English learners' academic performance and confidence levels in the general education classroom. The quasi-independent variable is the English learner identification assigned based on a home-language survey completed by parents during school enrollment and the English Language Proficiency Assessment (screener and summative). The independent variable was the co-teaching model that was implemented with a content teacher and language instruction education program teacher present. The dependent variables are scores on content rubrics, cognitive skill rubrics, and students' perceived confidence level collected from a survey. Academic scores on content rubrics were collected before a co-teaching model was implemented with fidelity (at the beginning of January 2023) and after three months of a co-teaching model in the content classroom. All content rubrics followed the same format. (See Figure 1)

Figure 1

Content Rubric Format

Power Standard	Exceeding-4	Proficient-3	Developing-2	Beginning-1

Academic scores were collected at the end of each project (See Table 3), a total of four projects were completed during the research period. Cognitive skill scores were also collected at the end of each project (see Table 4 and Table 5) using the attached rubrics. A survey was also

conducted before the co-teaching model was implemented (January 2023) and at the conclusion of the study (March 2023).

Procedure

To conduct this study, a classroom co-taught by a content teacher and language instruction education program teacher was identified along with five progressing English learners in that classroom.

Before a co-teaching model was implemented with fidelity, academic scores on content standard rubrics and cognitive skill rubrics were collected from the first semester (August through December 2022) and a survey was administered at the beginning of the second semester on January 11, 2023, to measure students' confidence level. The survey was administered by the researcher using a google form.

Data was collected from January through the end of March 2023. Students were in a co-taught classroom with an English Language Instructor and a content teacher. Data collected included academic performance on content rubrics, scores on cognitive skill rubrics, and the co-teaching model implemented each day. Academic performance data was collected at the end of each project. At the conclusion of the research period, the same survey was readministered to the five participants.

Results

The purpose of this study is to determine the effects of the co-teaching model on English Learners' academic performance and confidence levels in the general education classroom.

These questions framed the study:

- 1.) What is the effect on academic classroom performance among English learners in the general education content class using the co-teaching model vs a general education content classroom not utilizing the co-teaching model?

- 2.) What is the effect on confidence levels among English learners in a general education classroom using the co-teaching model vs a general education class not utilizing the co-teaching model?

To determine the effect a co-teaching model has on English learners' academic performance; scores on content and cognitive skill rubrics were collected before and after a co-teaching model was implemented. To determine the effect a co-teaching model has on English learners' confidence levels; a survey was administered to five seventh-grade English learners before and after a co-teaching model was implemented.

Findings

Table 1 shows the results of a paired sample t-test which was conducted on the initial survey to final survey results for each participant to determine any significance in the differences between mean scores. As seen in Table 1, the t-test revealed that there was no significance in the differences between the initial survey and final survey results. These results suggest that the co-teaching model did not make a significant difference in student self-confidence in the general education content classroom.

Table 1*Paired Sample T-Test for Participants' Response to Student Confidence Survey*

Participants	Initial Survey		Final Survey		T-Test
	M	SD	M	SD	
Participant 1	4.5	0.52705	4.8	0.42164	
Participant 2	4.3	0.82327	3.5	1.08012	
Participant 3	3.5	0.84984	4	1.41421	
Participant 4	3.4	0.84327	3.7	1.22927	
Participant 5	3.7	0.94868	3.3	1.05935	
					.93955

Table 2 shows the results of a paired sample t-test which was conducted on the initial survey results to final survey results for each survey question to determine any significance in the differences between mean scores. As seen in Table 2, the t-test revealed there was no significance in the differences between the initial survey and final survey results. These results suggest that the co-teaching model did not make a significant difference in student self-confidence in the general education content classroom.

Table 2*Paired Sample T-Test for Individual Survey Questions*

Question	Initial Survey		Final Survey		T-Test
	M	SD	M	SD	
I feel like my content teacher can help me when I need it.	3.6	0.54772	4.6	0.54772	
I feel comfortable asking my content teacher for help when I need it.	4	0.70711	3.4	1.14018	
I feel like my content teacher can support me in class.	4	1	4.2	0.44721	
I feel like my content teacher knows me and what I need to be successful in class.	4	1.22474	4	1	
I feel like my LIEP teacher knows me and what I need to be successful in class.	4	0.70711	4.2	0.83666	
I feel like I learn well with 1 content teacher in the room.	3.6	1.14018	3.6	1.34164	
I feel challenged when there is 1 content teacher in the room.	3.8	1.09545	2.6	1.34164	
I feel successful in my class with 1 content teacher.	3.4	0.89443	3.8	1.64317	
I feel like I learn better with 2 teachers (content and LIEP) in the room.	4.2	1.09545	4	1.22474	
I feel like I am more successful when there are 2 teachers (content and LIEP) in the room.	4.2	0.83666	4.2	1.30384	
					.91622

Table 3 provides each participant's content scores from the first and second semester, covering four projects and final products (assessments). Teachers in the selected district create rubrics based on the Iowa Common Core Standards for each content area. The mean for the first semester was 2.3 while the mean for second semester was 2.7. The difference in mean between first and second semester scores is 0.4. These content rubric results suggest the co-teaching model may have had a positive effect on students' academic performance.

Table 3

Participants' (P) Content Scores and Mean Results

Participant	First Semester		Second Semester	
	Project 1	Project 2	Project 3	Project 4
P 1	2	2	3	1
P 2	3	3	3	2
P 3	2	3	3	3
P 4	2	2	3	3
P 5	2	2	3	3
Mean	2.3		2.7	

Table 4 provides each participant's cognitive skill scores for the first semester, skill category mean, and project mean. The mean for each skill category increased from the first to second project prior to implementing a co-teaching model. The largest increase was seen in the argumentative skill category with an increase mean value of 0.9. There was also an increase in mean value of 0.6 from the first project to the second project.

Table 4*Participants' (P) Cognitive Skill Scores and Mean Results for First Semester*

Participant	Project 1			Project 2		
	Argumentative Claim	Selection of Evidence	Explanation of Evidence	Argumentative Claim	Selection of Evidence	Explanation of Evidence
P 1	3	3	2.5	4	4	3
P 2	3	3.5	2.5	3.5	3	2.5
P 3	3	3	2.5	4	3	3
P 4	3	3	3	4	4	3
P 5	3	3	3	4	4	3
Skill Mean	3	3.1	2.7	3.9	3.6	2.9
Project Mean	2.9			3.5		

Table 5 provides each participant's cognitive skills for second semester, skill category mean, and project mean. All skill categories had a mean value decrease between project 2 (first semester prior to a co-teaching model) and project 3 (second semester with a co-teaching model). The argumentative claim skill category decreased by 0.9, selection of evidence decreased by 0.6, and explanation of evidence decreased by 0.4. The fourth project introduced new cognitive skills: synthesizing multiple sources and contributing to evidence-based discussions that cannot be compared to previous cognitive skills. While cognitive skills from project 4 cannot be compared to previous cognitive skills, a project mean was identified. There was an increase in mean value of 0.35 from the third project to the fourth project.

Table 5*Participants' Cognitive Skill Scores and Mean Results for Second Semester*

Participant	Project 3			Project 4	
	Argumentative Claim	Selection of Evidence	Explanation of Evidence	Synthesizing Multiple Sources	Contributing to Evidence-based Discussions
P 1	2.5	3	2	3	3
P 2	2.5	3	2.5	3	3.5
P 3	3	2.5	2.5	3	4
P 4	3	2.5	2.5	3	3
P 5	4	4	3	3	3
Skill Mean	3	3	2.5	3	3.3
Project Mean	2.8			3.15	

Discussion

Overview

Schools across the country continue to become more diverse and see an increase in English learners. There has been much debate on how to serve and meet the needs of these students. One solution that has been proposed is integrating a co-teaching model into the general content classroom. Previous studies have established a positive relationship between co-teaching, student academic achievement, and the social well-being of students (Boland et al., 2019; Chanmugam & Gerlach, 2013; Dove & Honigsfeld, 2010; Walther-Thomas, 1997). Due to the success and positive relationship between co-teaching and learners with disabilities in previous studies, this study focused on determining the effects of the co-teaching model on English Learners' academic performance and confidence levels in the general education classroom by

answering these two questions: What is the effect on academic classroom performance among English learners in the general education class using the co-teaching model versus a general education content classroom not utilizing a co-teaching model? What is the effect on confidence levels among English learners in a general education classroom using the co-teaching model versus a general education not utilizing the co-teaching model?

Summary of Findings

For this study, the academic scores of five English learners were collected from August 2022 to March 2023 to document the effect the co-teaching model has on English learners' academic performance in the general education classroom. The findings of this study do not show a significant increase in the academic performance of English learners after the implementation of a co-teaching model. Students were at grade-level in social studies before a co-teaching model was implemented and showed a slight increase after a co-teaching model was implemented. After a co-teaching model was implemented, there was a decrease (-.07) in the cognitive skill mean scores. This may be a result of two teachers co-assessing the second semester versus one teacher assessing student work in the first semester. Along with academic scores, a survey was also administered to students to determine their confidence level in a classroom with and without a co-teaching model. Based on the survey results, the co-teaching model did not have a significant impact on students' confidence levels.

A confounding variable that may have influenced these results is previous SIOP (Sheltered Instruction Observation Protocol) training teachers have received which better equips educators to design lessons that address English learners' academic and language needs. Along with SIOP training, LIEP instructors provided all content teachers with student ELPA scores, an English learner profile, standardized test results from previous years, and suggestions for

differentiation at the beginning of every school year. Content teachers also have weekly meetings to address student concerns and seek out support from the special education and LIEP department. SIOP training and current support from the LIEP department has better equipped content teachers to support and encourage English learners when a LIEP instructor is not present.

Limitations and Recommendations for Future Research

There continues to be a need for more extensive research in a variety of school settings to investigate the effects a co-teaching model has on English learners. One of the limitations of this research study was the small sample size of participants. Although there are grades in the intermediate and middle school building with 30 English learners, a social studies class with five English learners was selected. Further research on the effects of co-teaching on English learner's academic performance and confidence levels in the general education classroom should include a wider sample. This wider sample would allow for a larger mix of language proficiency, grade levels, and teacher experience. A second limitation of this research study was time constraint. Due to inclement weather, English Language Proficiency Assessment, and school events, there were less instructional days. Further research into this topic should occur over a longer period, allowing the researcher to collect more consistent data on the participants and the co-teaching model.

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Appendix A

English Language Proficiency Assessment Participant Descriptions

Figure A1: Participant 1

1 Beginning
 2 Early Intermediate
 3 Intermediate
 4 Early Advanced
 5 Advanced

Domain	Scale Score	Performance	Domain Description
Listening	453±16	3	When listening, the student at Level 3 is working on: determining the main idea and a few supporting details; paraphrasing the main idea; participating in discussions, building on the ideas of others and answering questions; determining the meaning of general education and content specific words.
Reading	471±21	2	When reading grade-appropriate text, the student at Level 2 is working on: identifying the main topic and a few key details in simple written texts; identifying key words and phrases; responding to simple comments and questions on a variety of topics as well as some wh- questions; gathering and recording information.
Speaking	471±25	2	When speaking, the student at Level 2 is working on: offering an opinion or prediction using simple grammatical structures and vocabulary; responding to questions with words relevant to the topic; interpreting the information in a picture or graph about a familiar topic, constructing a claim and providing a supporting reason; producing simple and compound sentences.
Writing	488±22	3	When writing, the student at Level 3 is working on: participating in written exchanges with some details; constructing a claim about a topic, introducing the topic, and providing reasons and facts in logical order; providing a concluding statement; asking and answering questions, adding relevant information; expressing own ideas in writing; recounting a short sequence of events in order with a beginning, middle, and end; using common transitional words and phrases.

Figure A2: Participant 2

1 Beginning
 2 Early Intermediate
 3 Intermediate
 4 Early Advanced
 5 Advanced

Domain	Scale Score	Performance	Domain Description
Listening	516±21	4	When listening, the student at Level 4 is working on: determining the main idea and supporting evidence; paraphrasing and analyzing information to determine if the evidence supports the argument; posing and answering relevant questions; adding additional relevant information and evidence to key ideas.
Reading	476±21	2	When reading grade-appropriate text, the student at Level 2 is working on: identifying the main topic and a few key details in simple written texts; identifying key words and phrases; responding to simple comments and questions on a variety of topics as well as some wh- questions; gathering and recording information.
Speaking	559±29	3	When speaking, the student at Level 3 is working on: describing a picture or graph using general academic and content-specific vocabulary, and compound as well as complex sentences; constructing a claim and providing several supporting reasons or facts in a logical order; adapting language choices to audience; delivering a short oral presentation, or recounting a brief sequence of events in order using linking words.
Writing	520±21	3	When writing, the student at Level 3 is working on: participating in written exchanges with some details; constructing a claim about a topic, introducing the topic, and providing reasons and facts in logical order; providing a concluding statement; asking and answering questions, adding relevant information; expressing own ideas in writing; recounting a short sequence of events in order with a beginning, middle, and end; using common transitional words and phrases.

Figure A3: Participant 3

1 Beginning
 2 Early Intermediate
 3 Intermediate
 4 Early Advanced
 5 Advanced

Domain	Scale Score	Performance	Domain Description
Listening	604±30	5	When listening, the student at Level 5 is working on: determining main idea or ideas and how each idea is supported with evidence; gathering information from multiple oral sources and evaluating the credibility of the information; quoting or citing examples while paraphrasing data and conclusions; determining the meaning of general academic, context specific, figurative and idiomatic phrases.
Reading	603±26	4	When reading grade-appropriate text, the student at Level 4 is working on: determining two or more central ideas and how they are supported by specific details; building on ideas of others, adding relevant and specific evidence; summarizing text; gathering information from multiple sources to summarize ideas, information and observations; analyzing the arguments and claims made in text, determining the sufficiency of supporting evidence; determining the meaning of content-specific words and phrases and some idiomatic expressions.
Speaking	541±27	3	When speaking, the student at Level 3 is working on: describing a picture or graph using general academic and content-specific vocabulary, and compound as well as complex sentences; constructing a claim and providing several supporting reasons or facts in a logical order; adapting language choices to audience; delivering a short oral presentation, or recounting a brief sequence of events in order using linking words.
Writing	646±28	5	When writing, the student at Level 5 is working on: participating in extended written exchanges on a variety of topics and texts; adding evidence and summarizing ideas; composing narrative and informational texts with relevant details about a variety of topics; constructing a claim, introducing the topic and providing compelling, ordered reasons to support the claim; recounting a complex sequence of events with a beginning, middle, and end; adapting language choices and style to the purpose and audience; precisely expressing ideas while maintaining a consistent style and tone.

Figure A4: Participant 4

1 Beginning
 2 Early Intermediate
 3 Intermediate
 4 Early Advanced
 5 Advanced

Domain	Scale Score	Performance	Domain Description
Listening	455±17	3	When listening, the student at Level 3 is working on: determining the main idea and a few supporting details; paraphrasing the main idea; participating in discussions, building on the ideas of others and answering questions; determining the meaning of general education and content specific words.
Reading	521±22	3	When reading grade-appropriate text, the student at Level 3 is working on: determining the central idea or theme and supporting details; responding to others' comments and answering questions on familiar topics; gathering information from a few sources; using context clues to determine the meanings of general academic and content-specific words and phrases; explaining an author's argument; analyzing the arguments and claims made in text, distinguishing between those that are supported by reasons or evidence and those that are not.
Speaking	505±25	2	When speaking, the student at Level 2 is working on: offering an opinion or prediction using simple grammatical structures and vocabulary; responding to questions with words relevant to the topic; interpreting the information in a picture or graph about a familiar topic, constructing a claim and providing a supporting reason; producing simple and compound sentences.
Writing	487±20	3	When writing, the student at Level 3 is working on: participating in written exchanges with some details; constructing a claim about a topic, introducing the topic, and providing reasons and facts in logical order; providing a concluding statement; asking and answering questions, adding relevant information; expressing own ideas in writing; recounting a short sequence of events in order with a beginning, middle, and end; using common transitional words and phrases.

Figure A5: Participant 5

1 Beginning
 2 Early Intermediate
 3 Intermediate
 4 Early Advanced
 5 Advanced

Domain	Scale Score	Performance	Domain Description
Listening	544±23	4	When listening, the student at Level 4 is working on: determining the main idea and supporting evidence; paraphrasing and analyzing information to determine if the evidence supports the argument; posing and answering relevant questions; adding additional relevant information and evidence to key ideas.
Reading	509±21	3	When reading grade-appropriate text, the student at Level 3 is working on: determining the central idea or theme and supporting details; responding to others' comments and answering questions on familiar topics; gathering information from a few sources; using context clues to determine the meanings of general academic and content-specific words and phrases; explaining an author's argument; analyzing the arguments and claims made in text, distinguishing between those that are supported by reasons or evidence and those that are not.
Speaking	589±28	4	When speaking, the student at Level 4 is working on: participating in conversations and discussions with appropriate grammatical structures; recounting a detailed sequence of events with a beginning, middle, and end; summarizing information using simple, compound and complex sentences; supporting main ideas clearly with relevant and specific evidence; deliver oral presentations about a variety of topics and experiences.
Writing	493±21	3	When writing, the student at Level 3 is working on: participating in written exchanges with some details; constructing a claim about a topic, introducing the topic, and providing reasons and facts in logical order; providing a concluding statement; asking and answering questions, adding relevant information; expressing own ideas in writing; recounting a short sequence of events in order with a beginning, middle, and end; using common transitional words and phrases.

Appendix B

Student Self-Confidence Survey

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree
I feel like my content teacher can help me when I need it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel comfortable asking my content teacher for help when I need it.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like my content teacher can support me in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like my content teacher knows me and what I need to be successful in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like my LIEP teacher knows me and what I need to be successful in class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I learn well with 1 content teacher in the room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel challenged when there is 1 content teacher in the room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel successful in my class with 1 content teacher.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I learn better with 2 teachers (content and LIEP) in the room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I feel like I am more successful when there are 2 teachers (content and LIEP) in the room.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Appendix D

Cognitive Skill Rubrics

Figure D1

Composing / Writing	2	3	4	5
<p>Argumentative Claim</p> <p>Developing a strong opinion/ argument through clear, well-sequenced claims.</p>	Introduces a clear opinion/claim and provides reasons that support the student's point of view.	Introduces a clear opinion/claim and provides logically ordered reasons that support the student's point of view.	Claims and subclaims are clearly introduced throughout writing and organized so that relationships between claims and subclaims are evident.	<p>Claims and subclaims are clearly introduced and organized in a way that makes relationships among claims & subclaims clear and supports the reader's understanding.</p> <p>Some attention is given to the significance of claims.</p>

Figure D2

Composing / Writing	2	3	4	5
<p>Selection of Evidence</p> <p>Using relevant and sufficient evidence to support claims.</p>	Selects evidence relevant to main claim(s).	<p>Selects relevant evidence that generally supports main claim(s).</p> <p>Evidence for subclaims is limited or weakly related.</p>	Selects relevant evidence that generally supports both main claim(s) and subclaims.	<p>Selects a variety of relevant evidence that is sufficient to support main claim(s).</p> <p>Evidence still only generally supports subclaims.</p>

Figure D3

Composing / Writing	2	3	4	5
<p>Explanation of Evidence</p> <p>Analyzing how the selected evidence support the writer's statements (e.g., claims, controlling ideas).</p>	Includes relevant facts, definitions, concrete details, and quotations, and/or examples (and illustrations or multimedia, when appropriate) that support the main idea.	Explains relevant facts, definitions, concrete details, and/or quotations and examples (and illustrations or multimedia, when appropriate) that support the opinion/main idea.	<p>Provides relevant analysis that explains how the selected evidence supports claims or statements.</p> <p>Analysis stays rooted in the evidence but at times may be vague, illogical, or overly general.</p>	Provides clear analysis that accurately explains how the selected evidence supports claims or statements.

Figure D4

Using Sources	2	3	4	5
<p>Synthesizing Multiple Sources</p> <p>Integrating information across multiple sources to support an argument or explanation.</p>	<p>Integrates information from two sources on the same topic by comparing information.</p>	<p>Integrates information from several sources on the same topic by sorting and comparing information.</p>	<p>Connections among sources are made by comparing information from multiple sources and/or comparing the type of sources (e.g., format, genre, time period, etc.).</p>	<p>Connections among sources are made by grouping similar information/positions from multiple sources or identifying significant differences between sources in content and/or type.</p>

Figure D5

Listening & Speaking	2	3	4	5
<p>Contributing to Evidence-Based Discussions</p> <p>Contributing to a discussion or task with clear, relevant, and substantive content, prepared with appropriate evidence and details.</p>	<p>Makes comments relevant to the topic and connected to others' comments. OR Poses questions to check own understanding of information. OR Shows preparation by referencing information from assigned readings or prior knowledge.</p>	<p>Makes comments that review key ideas of the discussion or restate or clarify others' comments. OR Poses questions to understand the ideas of others. OR Shows preparation by referencing information from assigned readings and prior knowledge.</p>	<p>Makes comments that review key ideas of the topic and/or poses questions relevant to the topic. OR Shows preparation by referencing specific and relevant information from assigned readings.</p>	<p>Expresses own ideas clearly and/or poses questions relevant to the topic and in response to others' ideas. Contributions to discussion reflect preparation by drawing on specific and relevant evidence from sources and personal experiences/ observations to support own ideas or questions.</p>