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*Student and Teacher Perceptions of the Five Co-Teaching Models: A Pilot Study*

**Randa G. Burks-Keeley, M.A.**  
New Mexico State University

**Monica R. Brown, Ph.D.**  
New Mexico State University

*Abstract*

The potential benefits of co-teaching for students with disabilities are numerous, but more research is needed to ascertain the effectiveness of and preferences toward the current models. The purpose of this study was to (1) investigate student and teacher perceptions regarding the five co-teaching models (i.e., One Teach/One Assist, Station Teaching, Parallel Teaching, Alternative Teaching, and Team Teaching) as outlined, and (2) compare teacher and student perceptions to determine the impact on learning and teaching behaviors (i.e., classroom management, teaching model, confidence, engagement, learning, motivation, behavior, differentiated instruction, teacher authority, and work requirements). The results indicated that students and teachers perceive differences among the five co-teaching models and applies statistical data to previous findings that the one teach/one assist co-teaching model is ineffective.

*Student and Teacher Perceptions of the Effectiveness of Co-Teaching Models: A Pilot Study*

Since the passing of the 1975 law, *The Education for All Handicapped Children Act (EAHCA)*, students with disabilities have been entitled to an education in the least restrictive environment (LRE). And, subsequent reauthorizations (1990, 1997, and 2004) of EAHCA [now the Individuals with Disabilities Education Improvement Act (IDEA)] have maintained the principle of educating students with disabilities in the LRE. The LRE can take on many forms in the classroom ranging from self-contained to the general education setting. Once the specific needs of the child, based on their disability, are assessed the LRE can be determined. For many students with disabilities the LRE is something in between the resource classroom with a special educator and the general education classroom with one general educator. Some schools have chosen to provide this intermediary classroom in the form of the inclusive, co-taught classroom; a classroom in which both students with and without disabilities are instructed by both a general and special educator.

Today, the necessity for the inclusion of students with disabilities into the general education classroom has never been more evident due to the demand for the LRE. As the inclusive classroom structure began to take form, such terms as differentiated instruction and universal design for learning (UDL) became crucial in the special education profession (Anderson & Algozzine, 2007; Chapman & King, 2005; Lewis & Batts, 2005; Richards & Omdal, 2007; Rose & Meyer, 2002; Tomlinson & McTighe, 2006). It became obvious to educational professionals that simply transplanting students with disabilities into a general education classroom with only

accommodations would not be enough. General educators, for many reasons (i.e., lack of experience, course work, professional development), were generally not equipped to meet the needs of students with disabilities (Alvarez-McHatton, & Daniel, 2008; Idol, 2006; Ploessl, Rock, Schoenfeld, & Blanks, 2010). Therefore, co-teaching became a viable option for serving students with disabilities while also maintaining the integrity of the general education content (Dieker & Berg, 2002). The co-taught classroom, generally speaking, has both a general educator certified to teach in the respective content area and a special educator certified in special education. As co-taught classrooms continue to become more commonplace in schools across the United States it will become necessary to document the effectiveness of it as a strategy, what is expected, and what constitutes success in those co-taught classroom.

### **Co-Teaching as an Effective Instructional Method**

A successful co-taught classroom can be beneficial to students according to administrators, teachers and students (Scruggs, Mastropieri, & McDuffie, 2007). Co-teaching provides a viable option to serve students with disabilities in general education settings in accordance with IDEA (Villa, Thousand, & Nevin, 2008). Although research is limited with regard to this topic, the benefits of co-teaching are evident in many aspects regarding both students (e.g., availability of two licensed teachers in the classroom, smaller student-teacher ratio, ability to monitor behaviors more closely, etc.) and educators (e.g., professional satisfaction, enhanced instruction, immediate lesson feedback, avoidance of student conflicts, etc.) (Conderman, 2011; Dieker, 2001; Fenty & McDuffie-Landrum, 2011; Keef & Moore, 2004; Lawton, 1999; Magiera & Zigmond, 2005; Murawski, 2008; Nichols, Dowdy, & Nichols, 2010; Rice, Drame, Owens, & Frattura, 2007; Walther-Thomas, 1997).

### **Benefits for Students with Disabilities**

Students in co-taught classrooms benefit from having two teachers in the classroom with them at all times in that they receive more help as it is needed (Conderman, 2011; Fenty & McDuffie-Landrum, 2011; Nichols, Dowdy, & Nichols, 2010). Murawski (2008) contended that co-teaching “is considered a viable option for ensuring students have a ‘highly qualified’ content teacher in the room, while also ensuring that all students’ individualized education needs are met by an instructor who is highly qualified in differentiation strategies” (p. 29). Similarly, students with disabilities experience multiple benefits from the co-taught classroom including positive behavior, curriculum, and social improvements as described in the paragraphs below.

### **Behavior Benefits**

Students have cited that the presence of two teachers in the classroom deters negative behavior (Dieker, 2001). The presence of two teachers cuts down the student to teacher ratio and minimizes behavior issues (Dieker, 2001; Magiera & Zigmond, 2005). Specifically, students with emotional and behavioral disorders (EBD) have been traditionally served in more restrictive environments, but because two teachers are available to monitor behaviors the students benefit from the co-taught classrooms (Dieker, 2001). In addition to improved behaviors in the classroom, students can also anticipate curriculum benefits in the form of enrichment.

### **Curriculum Enrichment Benefits**

Students with disabilities receive a more enriched curriculum in the co-taught classroom as opposed to what they may receive in a resource classroom (Lawton, 1999; Rice, Drame, Owens,

& Frattura, 2007). The student to teacher ratio is reduced in half in the co-taught classroom allowing teachers the opportunity to focus instruction on smaller groups. Dieker (2001) concluded that a positive learning environment is created in a co-taught classroom resulting in higher academic and behavioral performance. Furthermore, when the classroom environment is idealistic, academic gains for students with disabilities can be perceived (Fenty & McDuffie-Landrum, 2011; Magiera & Zigmond, 2005). Moreover, Murawski and Swanson (2001) found that co-teaching is moderately effective in influencing positive student outcomes. Along with curricular benefits, co-taught students with disabilities can experience an improved social experience.

### **Social Benefits**

Students with disabilities benefit socially from the co-taught classroom because the stigma of attending a segregated class is removed (Fenty & McDuffie-Landrum, 2011; Keefe & Moore, 2004). Students with disabilities experience stronger relationships with general education peers as well as positive feelings about themselves as capable learners (Walther-Thomas, 1997). Similarly, students with disabilities have a built-in advocate in the classroom with them to ensure accommodations are taking place as required by their Individual Education Plan (IEP) (Rice et al., 2007). Finally, teachers reported that students with disabilities are able to operate at a higher level academically when paired with general education peers (Nichols, Dowdy, & Nichols, 2010). The benefits experienced by students are numerous and the benefits of co-teaching are evident for educators as well.

### **Benefits for Educators**

Teachers who participated in co-taught classes found that they experienced professional satisfaction and enjoyed opportunities for personal growth, support, and opportunities for collaboration (Fenty & McDuffie-Landrum, 2011; Friend, 2007; Scruggs, Mastropieri, & McDuffie, 2007; Walther-Thomas, 1997; Weiss & Brigham, 2000). Additionally, co-teaching functions to enhance instruction for new teachers when paired with more experienced co-teaching partners (Sack, 2005). When co-teaching partners are able to effectively collaborate, having another teacher present is a means to effectively provide lesson feedback or changes that might be made to help a student better grasp a concept (Forbes & Billet, 2012). In terms of students, personality conflicts can be avoided as well because there is another teacher in the classroom that can assist that student (Forbes & Billet, 2012). Effective co-teaching partners are able to combine skill sets in order to model collaboration for other teachers (Fenty & McDuffie-Landrum, 2011).

### **Co-teaching Models**

Presently, there are five co-teaching models most often implemented in co-taught classrooms. They include: (1) One Teach/ One Assist, (2) Station Teaching (3) Parallel Teaching (4) Alternative Teaching, and (5) Team Teaching. These models have been studied and discussed over the years (Cook & Friend, 1995; Fenty & McDuffie-Landrum, 2011; Forbes & Billet, 2012; Hepner & Newman, 2010; Nichols, Dowdy, & Nichols, 2010; Sileo, 2011). Friend and Cook (1993) described the five models as (1) one teach/one assist where typically the general education teacher provides content instruction while the special educator “drifts” through the classroom assisting students who need additional help, (2) station teaching where the content is divided into three parts and each teacher is responsible for delivering a portion of content while a

group of students work independently (students rotate until they have received all content), (3) parallel teaching where the class is separated into two groups while each teacher delivers the same content to their group, (4) alternative teacher where one teacher works with a small group to re-teach, supplement, or pre-teach while the other teacher presents content to the large group, and (5) team teaching where both teachers take turns presenting content information to the large group.

### *Method*

Despite the available research on the benefits and effectiveness of co-teaching as an instructional strategy/method, there is no research available regarding teacher and student preferences for each of the five co-teaching models (Murawski & Swanson, 2001; Weiss, 2004). In order to implement the models most effective for the students being served, educators need to know what students and teachers perceive as most effective from a learner and teacher perspective and why. This research presents survey/rubric findings for the purpose of creating better co-teaching partnerships with the ultimate goal of improving learner and teacher experiences in the inclusive co-taught classroom. From the findings, inferences are made regarding what is needed in co-taught classrooms to facilitate better teaching and learning outcomes. Therefore, this study was conducted to ascertain: (1) student and teacher perceptions regarding the five co-teaching models, and (2) how those perceptions impact teaching and learning in the co-taught classroom.

The researchers chose an exploratory survey (rubric) method to identify educator and student perceptions of the five co-teaching models.

The overarching questions this study answered included:

1. Are there perceived differences (among students) between the five co-teaching models (e.g., One Teach/One Assist, Station Teaching, Alternative Teaching, Parallel Teaching, or Team Teaching)? If so, what differences are found?
2. Are there perceived differences (among teachers) between the five co-teaching models (e.g., One Teach/One Assist, Station Teaching, Alternative Teaching, Parallel Teaching, or Team Teaching)? If so, what differences are found?
3. Are there perceived differences between student and teacher perceptions with regard to the five co-teaching models (e.g., One Teach/One Assist, Station Teaching, Alternative Teaching, Parallel Teaching, or Team Teaching)? If so, what are these differences?

### **Survey Instrument**

This study involved the (1) administration of survey rubrics (see Tables 2 and 3), (2) the administration of student and teacher general information questionnaire; (3) the completion of a teacher reflection (See Table 3), and (4) teacher implementation of each of the co-teaching models discussed earlier in this paper.

The rubrics employed a Likert Scale of one through five (five being the highest score and one being the lowest score) to measure student and teacher perceptions. Each category had a descriptor to better inform students and teachers about the expectation for each score level. The student rubric was checked using the Frye Readability scale and was found to be at the fifth

grade level. The teacher and student rubrics had several of the same categories (i.e., Classroom Management, Student Confidence, Learning, etc.) in order to analyze for statistical interactions. See Tables 2 and 3 for the teacher and student rubric and the categories and descriptors. Prior to the administration of the rubric a script explaining the process and Likert scale was read to the students in order to aid them in choosing the most exact score.

### *Methods*

#### **School District**

The participating school district is located in the southeastern portion of the US and serves grades K-12. There are fifteen schools in the district (9 elementary, 3 middle (grades 5-7)), 2 junior high (grades 8-9), 1 high and 1 alternative school). The district's student population is 8,838, with 39.9% of students receiving free or reduced lunches, 18.5% considered at the poverty level, 70.5% Caucasian, 9.7% African American, 10.9% Hispanic, 4.4% Asian, and 0.8% American Indian. Approximately 10.9% of the students have been identified as having a disability and receive special educational services.

#### **School Selected**

Perceptions of co-teaching models were collected from students attending a junior high school in a small city in the southeastern part of the United States. This school was selected because of the progressive approach of the administrator to obtain researched data regarding the special education service model employed. The school is predominantly Caucasian, but with a large proportion of African American students as compared to the other junior high school in the district. The total enrollment for the 2011-2012 school year was 630 students, including 64% Caucasian, 19% African American, 14% Hispanic, 2% Asian, and 1% American Indian. Approximately 51% of the students were eligible for free or reduced lunches and 13% received special education services for a disability. The students selected for this study were representative of that demographic. Additionally, at the time of the study, the school in the study employed approximately 49 full time teachers.

#### **Setting**

The school and classrooms selected for participation in this study were located in a junior high school that accommodated eighth and ninth grade students. The classrooms were in natural settings in a junior high school environment. There were a total of four classrooms that participated in this study. Two of the classrooms were eighth grade and two were ninth grade. All were inclusive classrooms and included students with and without individualized educational programs (IEPs). The research team and school administrator felt that the inclusion of four classes would provide usable data for the co-teaching pair that could be applied to their personal instruction. Additionally, student groups represented by each classroom can and will have different experiences based on the organic classroom make-up and responses may be affected by the individual student's specific classroom experience. This research gave the co-teaching pair information about all of the co-taught classrooms they were assigned to teach that provided the opportunity for comparison data per classroom. Additionally, the co-teaching pair chosen were most interested in having this type of data about their co-teaching process and were willing to take the steps necessary for the successful implementation of this project.

## **Participants**

The student participants in this study ( $N= 37$ ) were a subsample of a large, urban school district in the southeastern United States. All students in the study received instruction in a co-taught setting in an English Language Arts classroom. Students within the classroom were classified as general education or special education. Of the 37 students, 15 are identified as having a disability; they ranged in age from 13 to 16 years of age. The large range in ages was due to the fact that both grades eighth and ninth were represented. The disabilities in the classroom were mild to moderate and included specific learning disabilities in reading and writing, Attention Deficit and Hyperactivity Disorder, and Autism Spectrum Disorder.

The teacher participants ( $N= 2$ ) were also representative of the teacher demographic of the school district. Both teachers have taught between eight and ten years and one of the teachers holds a graduate degree while the other teacher is currently pursuing a graduate degree. The classroom was an English Language Arts classroom and both teachers are certified in the respective content area of English Language Arts. The special educator had taught in a co-taught setting for one year (while currently seeking certification in Special Education grades 4-12) and the general educator had co-taught for eight years. The 2012-2013 academic school year marked their second year as co-teaching partners. The co-teaching partners participated in a one-on-one explanation of the co-teaching models and the expectation of what characterized each model. At this time only one school participated in the study. This study served as a pilot study and a means to pare down the current rubric to better assess co-taught classrooms. Future research will include a larger student and teacher sample size in order to glean generalizations.

## **Selection of Participants**

After receiving consent from the researchers' Institutional Review Board and the school district to conduct the study, student, teacher, and parent consent forms were prepared and mailed, with a return envelope, to the two participating teachers. Once the Assent/Consent Forms were mailed, coding preparation for the rubrics was initiated. The teacher and student rubrics were color coded (i.e., pink for One Teach/One Assist; blue for Station Teaching; green for Alternative Teaching; yellow for Parallel Teaching; and purple for Team Teaching). The rubrics were also number coded one through 37 so that each student would receive the same rubric number for each co-teaching model. Additionally, a script was prepared for the teachers to read to the students prior to their completion of the rubrics. All of the rubrics were then packaged into separate envelopes with return envelopes for each set, boxed, and sent to the two participating co-teachers. Finally, a conference call was arranged with the teachers to discuss all of the materials they had received and to field any questions/concerns they had regarding their participation in the study. The conference call concluded with agreement as to the dates the study would commence and instructions for return of the surveys.

## **Design and Procedures**

The research design was created through collaboration between the authors of this paper. It was decided that a co-teaching team would teach their respective classroom of students for two consecutive days using each co-teaching model in order to create a controlled environment. Although it limited the flexibility of the teachers, it provided the researchers with a deliberate instructional approach to co-teaching. The co-teaching team was selected through collaboration with the selected junior high school's principal. The study lasted a total of ten days. (See Table

1 for the Teaching Schedule.) Student and teacher perceptions would be measured using a rubric. (See Tables 2 and 3 for samples of the Rubrics). Teachers and students received a separate rubric that they completed following the second day of teaching for each co-teaching model. In all they completed a total of five rubrics. Additionally, all participants provided certain demographic and personal information prior to receiving instruction. At the conclusion of the study, teachers also completed a reflection page regarding their thoughts and experiences during the study.

### **Survey Instruments**

The Student and Teacher Co-teaching Rubrics (see Tables 2 and 3) were designed specifically by the authors for this study. The Student Co-teaching Rubric was designed to measure student perceptions in the following areas: classroom management, teaching model, teacher confidence, engagement, learning, motivation, behavior, differentiated instruction, work requirements, student confidence, and teacher authority. The student rubric was checked using the Frye Readability scale and was found to be at the fifth grade level. The teacher and student rubrics had several of the same categories (i.e., Classroom Management, Student Confidence, Learning, etc.) allowing comparisons to be analyzed for statistical interactions. (See Tables 2 and 3 for the teacher and student rubric and the categories and descriptors.) Prior to the administration of the rubric, a script explaining the process and Likert scale was read to the students in order to aid them in choosing the most exact score. Additionally, the Teacher Co-teaching Rubric was designed to measure the teacher perceptions in the following areas: classroom management, teaching model, teacher confidence, engagement, learning, implementation, behavior, differentiated instruction, student work production, student confidence, teacher authority, teacher impact, and learning accommodations and strategies. The teachers were also given a Teacher Reflection piece that asked reflection questions.

### ***Results***

Data were analyzed using an ANOVA with repeated measures to determine if students reflected differences existing between the five co-teaching models with respect to the rubric categories (i.e., classroom management, teaching model, teacher confidence, engagement, learning, motivation, behavior, differentiated instruction, work requirements, student confidence, and teacher authority). An ANOVA with repeated measures was also used to test for the presence of differences between the five co-teaching models and the rubric descriptors as per teacher perspectives (i.e., regarding classroom management, teaching model, teacher confidence, engagement, learning, implementation, behavior, differentiated instruction, student work production, student confidence, teacher authority, teacher impact, learning accommodations and strategies). The predetermined level of significance for the ANOVA with repeated measures was set at  $\alpha \leq 0.05$ . Additionally, the post hoc test for Least Significant Differences (LSD) was also applied to data results. The predetermined level of significance for the post hoc test was set at  $\alpha \leq 0.05$ . However, because the sample size for this study was small the researcher retained those items that displayed a trend or significance level of  $\alpha \leq 0.08$  but  $>0.05$  for further study..

### **Student Comparisons**

Results from the ANOVA with repeated measures testing for differences in student perceptions across the teaching models revealed significant differences for teaching model ( $F, (3.277) =$



0.0029), teacher authority ( $F, (3.021) = 0.049$ ), student confidence ( $F, (4.49) = 0.002$ ), student learning ( $F, (4.133) = 0.004$ ), and a trend for classroom management ( $F, (2.356) = 0.059$ ). Results of post hoc analyses to identify which co-teaching models differences in perceptions varied significantly are reflected in tables 5-9, [i.e., Teaching Model (Table 5), Teacher Authority (Table 6), Student Confidence (Table 7), Student Learning (Table 8), Classroom Management (Table 9)].

Student perceptions of teacher confidence, work requirements, motivation, engagement, and behavior were not at a statistically significant level ( $\alpha > 0.05$ ). Therefore, student feelings with regards to each of these areas did not vary with each co-teaching model. With regard to behavior, student behavior is minimized because of the presence of two teachers; therefore, the findings of this research in regard to behavior serve to reinforce already established tenets of co-teaching benefits (Dieker, 2001; Magiera & Zigmond, 2005).

### **Teacher Comparisons**

Results from the ANOVA with repeated measures testing for differences in teacher perceptions across the teaching models revealed significant differences for classroom management ( $F, (34.000) = 0.001$ ) and implementation ( $F, (13.833) = 0.007$ ). Results of post hoc analyses are reported in tables 10 and 11 [i.e., classroom management (Table 10) and implementation (Table 11)]. The statistical power of any findings with regards to the teachers was greatly diminished because of the small number of participants.

### **Student and Teacher Comparisons**

The greatest interaction with regards to the teacher and student perceptions of the five co-teaching models included classroom management [(Category:  $F, (1.164) = .018$ ) (Model:  $F, (4.164) = 3.833$ ) (Category and Model:  $F, (4.164) = 2.073$ )] and teaching model [(Category:  $F, (1.164) = .033$ ) (Model:  $F, (4.164) = 6.223$ )] [(Category and Model:  $F, (4.164) = 4.702$ , with a level of significance  $\alpha \leq 0.05$ ]. Furthermore, although an interaction was not discovered with regard to student work ( $F, (1.160) = 20.970$ , with a level of significance  $\alpha \leq 0.05$ ) and student confidence ( $F, (1.162) = 6.664$ , with a significance  $\alpha \leq 0.05$ ) between teachers and students, there was a significant difference between the categories.

## *Discussion*

### **Implications for Co-teachers**

The findings from this study suggest that there is a perceived difference between the five co-teaching models from both a student and teacher perspective. This study applies statistical data to previous findings that the one teach/one assist co-teaching model is ineffective. This study specifically targets areas in which the one teach/one assist co-teaching model is ineffective (i.e., establishing teacher authority, student learning, and student confidence). Specifically, this study is able to conclude that in terms of Classroom Management (i.e., teachers presenting themselves as equal partners with regard to instruction, discipline, and answering student questions) One Teach/One Assist was significantly less than Station and Parallel Teaching. Regarding Teaching Model (i.e., both teachers presented new material to the class) students responded that the One Teach/One Assist model was significantly lower than both Parallel and Team Teaching and that Alternative Teaching was significantly less than Parallel and Team Teaching. More importantly

for teachers, student perspectives with regard to learning (i.e., the amount of the lesson they were able to understand) and confidence (i.e., how comfortable the students were with the content upon lesson completion) were greatly affected by the model with them reporting that the One Teach/One Assist model was statistically lower than almost all other co-teaching models. Additionally, the presence of parity in the classroom (i.e., Teacher Authority or power distribution between teachers in the classroom) is also evident to students with One Teach/One Assist scoring statistically lower than Station and Team Teaching and Alternative Teaching scoring statistically lower than Station, Parallel, and Team Teaching.

This data implies that students perceive differences in their classroom experience and the differences that directly affect the way they feel about their learning and their confidence level about their learning. This type of information is abundantly important to co-teaching partners because it is undeniable evidence that how they choose to operate in the classroom with their partner is directly relatable to student perceptions of their learning experience.

Additionally, these findings highlight the need for further research in this area to determine the degree to which students and teachers perceive differences between the co-teaching models. The findings of this research concluded that students perceived differences between co-teaching models in the areas of classroom management, teaching model, learning, student confidence, and teacher authority. This type of research can improve co-teaching and inclusive teaching practices in an effort to meet the needs of an inclusive classroom with co-teaching partners by encouraging the implementation of co-teaching models that are perceived as more effective from the student perspective.

### **Limitations and Future Research**

The objective of the study was to serve as a pilot study in order to determine if further research in this specific area could be warranted. Researchers used a survey method that measured perceptions for data collection which serves as a limitation. Additionally, the survey measured perceptions which typically employ a qualitative research design. Researchers determined that a larger group of participants could increase the power of the study as well as provide a more diverse response. Additionally, co-teaching partners at varying stages of experience could improve this study as well. Teachers who participated in this study reported that although the content reading level of the rubric was appropriate, the length of the rubric was tedious for the students who participated, especially those with specific learning disabilities in reading. Lastly, the study was conducted over a ten day period which removed flexibility from the co-teaching partners and removed the opportunity for a more organic implementation of the co-teaching models. Also, because the teachers were required to closely adhere to a strict timeline, and they were asked to use the models as they are typically ordered in literature (i.e., one teach/one assist, station teaching, alternative teaching, parallel teaching, and team teaching) another level of flexibility was removed.

The continuation of this line of research will include a larger group of both students and teachers for survey purposes as well as an extended time period for data collection in order to provide teachers with flexibility. Additionally, the rubric will be reduced in length to remove tediousness and streamlined for easier data collection.

## *Conclusion*

A co-taught classroom is fitted with a natural abundance of resources in that one teacher is specifically skilled in the content that is being taught while the other is trained to target special instructional needs of the students. It is a waste of time, energy, resources, and money when the full instructional potential of both teachers in the classroom is not fully realized. Therefore, each teacher should be responsible for sharing an equal and/or equitable load (based on mutual agreement) of instructional duties (Murawski, 2009). In order for instruction to take place and co-teaching teams to move into the models such as station, parallel, alternative, and team teaching; a collaborative effort between both co-teaching partners must be present.

The findings of this study suggest that differing student perceptions exist with regard to the five co-teaching models. Specifically, students feel more confident and feel they have learned more when certain models are employed. Students feel more confidence with regard to content when station, alternative, parallel, or team teaching models are being employed. Students feel that they have learned more when the alternative, parallel, and/or team teaching models have been incorporated. This information can be applied to current co-teaching practices in order to improve the student experience in the co-taught classroom.

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### *About the Authors*

**Randa G. Burks-Keeley, M.A:** Ms. Burks-Keeley is a Doctoral Candidate of Special Education in the Department of Special Education and Communication Disorders at New Mexico State University. Her research focus is in the area of co-teaching and inclusive practices in literacy. Prior to entering the doctoral program at New Mexico State University, Ms. Burks-Keeley held teaching assignments in the general, gifted, and special education classroom. Additionally, Ms. Burks-Keeley serves as a reviewer for multiple special education journals. Ms. Burks-Keeley will continue her research of co-taught classrooms and inclusive practices upon her graduation.

**Monica R. Brown, Ph.D: Dr.** Monica R. Brown Brown is a Professor of Special Education in the Department of Educational and Clinical Studies at UNLV. She teaches in the area of Secondary (Special) Education, which includes reading, transition, and methods courses. Her research focuses on the intersectionality of disability, culture, and technology in special education. Prior to coming to UNLV, Dr. Brown was a faculty member for 10 years at New Mexico State University. Dr. Brown currently serves on editorial boards for 5 national and 1 international journal(s) and is an Associate Editor for the Diversity column of *Intervention in School and Clinic*. Dr. Brown is also a member of CLD's Diversity Committee and presents annually with a cohort from the Committee on issues relevant to diversity and special populations. Dr. Brown plans to continue her research with CLD populations with disabilities and hopes to continue her work internationally. *Note.* Dr. Brown will begin her tenure at UNLV in August of 2014.

Table 1  
Co-teaching Model Illustration

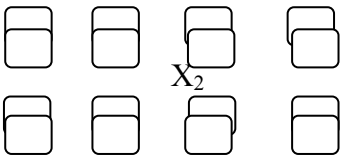
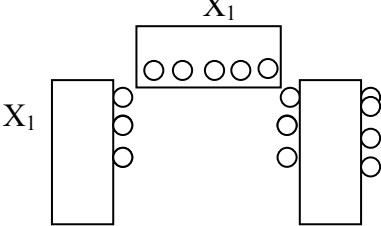
Co-teaching Model	Description	Configuration	Teaching Days
One Teach/One Assist	<p>-one educator retains the instructional lead in the classroom while the other circulates through the room providing assistance and support to the students as needed</p> <p>-requires very little collaboration between the teachers prior to classroom instruction</p>	 <p>The diagram shows a 2x4 grid of desks. The top row is labeled <math>X_1</math> and the bottom row is labeled <math>X_2</math>. Each desk is represented by a rectangle with a smaller rectangle on top, indicating a seat and a desk surface.</p>	Week 1; Days 1 and 2.
Station Teaching	<p>- three separate learning activities are created that relate to the learning goal</p> <p>-each co-teacher leads a group while the third group works independently</p> <p>the groups then rotate and the cycle continues until all three groups have received all three pieces of the content</p>	 <p>The diagram shows two vertical columns of desks, each with three desks. A horizontal row of four desks is positioned between the two columns. The horizontal row is labeled <math>X_1</math> and the vertical columns are also labeled <math>X_1</math>.</p>	Week 1; Days 3 and 4.

Table 1(continued)  
Co-teaching Model Illustration

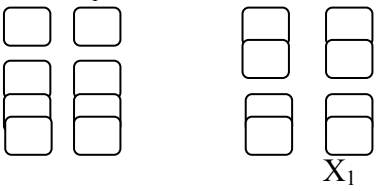
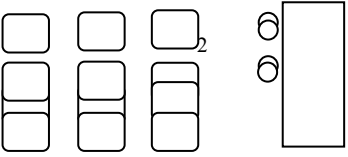
Co-Teaching Model	Description	Configuration	Teaching Days
Parallel Teaching	<ul style="list-style-type: none"> <li>- teachers to teach the same lesson to half the class</li> <li>- lessons are taught simultaneously and the groups are divided heterogeneously so as to keep both groups on the same time schedule</li> <li>- both teachers accommodate students with disabilities and general education students so as to maintain the integrity of the inclusion classroom</li> </ul>	<p style="text-align: center;"><math>X_1</math></p> 	Week 1, Day 5; Week 2, Day 1.
Alternative Teaching	<ul style="list-style-type: none"> <li>- requires that a classroom be divided into two groups</li> <li>- one group is smaller and receives an alternate lesson from the larger group</li> <li>- larger group of students will continue on with the regular lesson</li> <li>- pertinent to vary groupings when using this co-teaching model</li> </ul>	<p style="text-align: center;"><math>X_1</math></p> 	Week 2; Days 3 and 4.

Table 1(continued)  
Co-teaching Model Illustration

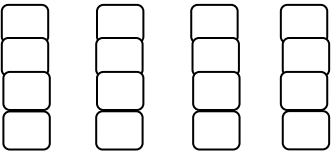
Co-Teaching Model	Description	Configuration	Teaching Days
Team Teaching	<p>-requires that both teachers teach the same lesson together</p> <p>- co-teachers take turns presenting the material together, demonstrate while the other teacher is speaking, role-play, and answer student questions as they arise</p> <p>- Co-teachers can ask questions of one another during instruction so as to avoid potential confusion for students</p>	<p><math>X_1 X_1</math></p> 	Week 2, Days 4 and 5.



Table 2  
Student Questions and Rubric

Student Rubric

Grade: \_\_\_\_\_

Please answer the following five (5) questions to the best of your ability.

1. Do you receive special education services? Yes \_\_\_\_ No \_\_\_\_
2. If yes, why do you receive special education services?
3. Have you ever been taught in a co-taught (two teachers sharing the teaching responsibilities) classroom prior to this classroom?
4. How many co-taught classrooms have you been a student in?
5. What were the subjects (i.e., Science, Mathematics, History, etc.) of those courses?

	Classroom Management	“X” One
5	The teachers presented themselves as equal partners with regard to discipline and answering student questions.	
4	The teachers mostly presented themselves as equal partners with regard to discipline and answering student questions.	
3	Some of the time one teacher would answer student questions and manage discipline while the other teacher would teach the class.	
2	Most of the time one teacher was in charge of answering student questions and managing discipline while the other teacher taught the class.	
1	One teacher answered student questions and disciplined students while the other teacher taught the class.	

Table 2 (continued)

	Teaching Model	“X” One
5	Both teachers presented new material to the class.	
4	For the most part, both teachers presented new material to the class.	
3	Some new information was provided by one of my teachers, but most new information came from the other teacher.	
2	Very little new information was presented by one of my teachers.	
1	New material was presented to the class by one teacher.	

	Teacher Confidence	“X” One
5	I can ask both of my teachers about what we are learning and I know they will both be able to help me.	
4	I am fairly certain both of my teachers can answer any question I may have about the material we are learning.	
3	I am not sure both of my teachers can answer any question I may have about the material we are learning.	
2	I am fairly certain I cannot ask one of my teachers a question about the material we are learning.	
1	I know that one of my teachers cannot answer a question I may have about the material we are learning.	

	Engagement	“X” One
5	Because of the things we were doing in class, I felt as though I was able to give my total attention to the lessons.	
4	There were several things we did in class that held my attention, but not everything.	
3	There were only two or three things that we did in class that helped me to pay attention.	
2	We did very little in class that helped me to pay attention and stay interested.	
1	Much of what we did in class was boring and I had a hard time paying attention.	

Table 2 (continued)

	Learning	“X” One
5	This style of teaching helped me to understand 90-100% of the lessons.	
4	This style of teaching helped me to understand 80-89% of the lessons.	
3	This style of teaching helped me to understand 70-79% of the lessons.	
2	This style of teaching helped me to understand 60-69% of the lessons.	
1	This style of teaching helped me to understand less than half of the lessons.	

	Motivation	“X” One
5	Because of the ways my teachers taught me I felt excited, like I could complete all of my work easily.	
4	Because of the ways my teachers taught me I felt mostly ready to finish all of my work.	
3	Because of the ways my teachers taught me I felt somewhat ready to finish all of my work.	
2	Because of the ways my teachers taught me I did not really feel like doing any work.	
1	After being taught this way I did not want to finish my work.	

	Behavior	“X” One
5	My behavior was much better because of the teaching style and the activities.	
4	My behavior was better than normal because of the teaching style and the activities.	
3	My behavior was somewhat better than normal because of the teaching style and the activities.	
2	My behavior was not that much better than normal because of the teaching style the activities.	
1	This style of teaching had NO impact on my behavior. I was like I always am in class.	

Table 2 (continued)

	Differentiated Instruction	“X” One
5	My teachers offered many different ways for me to learn the material. (e.g. I could see it, hear it, touch it, and try it for myself)	
4	My teachers offered 2-3 different ways for me to learn the material.	
3	My teachers offered at least 2 different ways for me to learn the material.	
2	My teachers offered only 1 way for me to learn the material.	
1	My teachers offered no alternative ways for me to learn the material. I was expected to learn the material for myself with no instruction.	

	Work Requirements	“X” One
5	The work that I have been asked to do in class is important work and it will help me to learn the new material.	
4	The work that I have been asked to do in class is mostly important and it should help me to learn the new material.	
3	The work that I have been asked to do in class could be important and it might help me learn the new material.	
2	The work that I have been asked to do in class does not seem that important and I don't think that it will help me learn the new material.	
1	I don't feel that the work we are doing in class is important because it is not helping me to learn the new material.	

Table 2 (continued)

	Student Confidence	“X” One
5	After the last two lessons and teaching style I feel confident that I could answer any question about the material.	
4	After the last two lessons and teaching style I feel mostly confident that I could answer any question about the material.	
3	After the last two lessons and teaching style I feel somewhat confident that I could answer any question about the material.	
2	After the last two lessons and teaching style I do not feel very confident about answering questions about the material.	
1	I don't feel like I learned much over the last two days and I hope my teacher does not ask me a question about the material.	

	Teacher Authority	“X” One
5	Over the last two days it seemed that both of my teachers have the same amount of power in the classroom.	
4	Over the last two days it seemed that, for the most part, both of my teachers have the same amount of power in the classroom.	
3	Over the last two days it seemed that one of my teachers may have had a little more power than the other teacher.	
2	Over the last two days one of my teachers seemed more powerful than the other teacher.	
1	Over the last two days it is obvious that one of my teachers is more powerful than the other teacher.	

Table 3  
Teacher Questions, Rubric, and Reflection

Teacher Questions

Please respond to the questions below prior to completing the rubric.

1. What is your race/ethnicity? \_\_\_\_\_
2. What age range do you fall in?  
20 – 25 \_\_\_\_\_ 26 – 30 \_\_\_\_\_ 31 – 35 \_\_\_\_\_ 36 – 40 \_\_\_\_\_ above 40 \_\_\_\_\_
3. Number of years you have taught? \_\_\_\_\_
4. Number of years you have co-taught? \_\_\_\_\_
5. Main content area(s) taught? \_\_\_\_\_
6. Specific grade level(s) taught? \_\_\_\_\_
7. Are you a general or special education teacher? \_\_\_\_\_
8. What is your current teaching assignment?
9. How much time do you spend co-planning with your partner weekly?
10. When co-planning what is your role?
11. Highest degree? And content area if appropriate. (For example: Master's in Curriculum and Instruction --- Science Education):  
\_\_\_\_\_

Table 3 (continued)

Teacher Rubric

Please complete the rubric below by placing an “X” at the end of each row next to the descriptor that best identifies your feelings regarding this co-teaching experience. After you have completed the rubric you may provide additional comments regarding your scores on the back of this packet. Please complete independent of your co-teaching partner.

	Classroom Management	“X” One
5	We presented ourselves as equal partners with regard to discipline and answering student questions.	
4	We mostly presented ourselves as equal partners with regard to discipline and answering student questions.	
3	Some of the time one of us would answer student questions and manage discipline while the other would teach the class material.	
2	Most of the time one of us was in charge of answering student questions and managing discipline while the other taught the class.	
1	One teacher answered student questions and disciplined students while the other teacher taught the class.	

	Teaching Model	“X” One
5	Both teachers presented new material to the class	
4	For the most part, both teachers presented new material to the class.	
3	Some new information was provided by one of us, but most new information came from my partner.	
2	Almost all new information came from my partner while I added a few things here and there.	
1	New material was presented to the class by one teacher.	

Table 3 (continued)

	Teacher Confidence	“X” One
5	I am totally confident I could answer any question my students may have about the new material that we covered.	
4	I am fairly confident I could answer any question my students may have about the new material that we covered.	
3	I am not totally confident I could answer any question my students may have about the new material that we covered.	
2	I am fairly certain I cannot answer questions my students may have about the new material that we covered.	
1	I know that I would have to defer to my partner to answer a question my students may have about the new material that we covered.	

	Engagement	“X” One
5	My co-teaching partner and I used multiple strategies to engage our students in the lesson.	
4	My co-teaching partner and I used some strategies to engage our students in the lesson.	
3	There was very little emphasis placed on student engagement with these past two lessons.	
2	We did very little in class to help engage students in the learning process.	
1	There was no attempt to engage students in the learning process.	



Table 3 (continued)

	Learning	“X” One
5	It seemed as though this style of teaching helped my students to understand 90-100% of the material covered.	
4	It seemed as though this style of teaching helped my students to understand 80-89% of the material covered.	
3	It seemed as though this style of teaching helped my students to understand 70-79% of the material covered.	
2	It seemed as though this style of teaching helped my students to understand 60-69% of the material covered.	
1	It seemed as though this style of teaching helped my students to understand less than half of the material covered.	

	Implementation	“X” One
5	This model was very difficult to implement and took much longer than normal to plan.	
4	This model was somewhat more difficult to implement and took longer than normal to plan.	
3	This model was not much more difficult to implement and didn't seem to take much longer than normal to plan.	
2	This model was easily implemented and took almost the same amount of time as normal to implement.	
1	This model took no extra effort on our part to implement.	

Table 3 (continued)

	Behavior	“X” One
5	As a result of the model used, student behavior improved significantly.	
4	As a result of the model used, student behavior improved.	
3	As a result of the model used, student behavior seemed to improve.	
2	As a result of the model used, student behavior didn’t really seem to improve.	
1	As a result of the model used, student behavior did not improve at all and may have gotten worse.	

	Differentiated Instruction	“X” One
5	All students were appropriately challenged over the last two lessons and many methods of differentiate were used.	
4	Most students were appropriately challenged over the last two lessons and some methods of differentiation were used.	
3	Not all students were appropriately challenged over the last two lessons and few methods of differentiation were used.	
2	There was little focus on appropriately challenging students over the last two lessons.	
1	We offered no differentiated instruction.	

	Student Work Production	“X” One
5	The work product received from students was superior as a result of the last two lessons.	
4	The work product received from students was above average as a result of the last two lessons.	
3	The work product received from students was somewhat better as a result of the last two lessons.	
2	The work product received from students did not seem any better than normal.	
1	The work product from students was worse than normal and many did not finish the assignment.	

Table 3 (continued)

	Student Confidence	“X” One
5	I feel very confident that any student could answer questions about the material we have covered in the last two lessons.	
4	I feel confident that any student could answer questions about the material we have covered in the last two lessons.	
3	I feel somewhat confident that any student could answer questions about the material we have covered in the last two lessons.	
2	I do not feel confident that any student could answer questions about the material we have covered in the last two lessons.	
1	I don't feel like the students could confidently answer questions about the content that we have covered in the last two lessons.	

	Teacher Authority	“X” One
5	Over the last two lessons neither teacher appeared to have any more authority than the other teacher.	
4	Over the last two lessons both teachers mostly appeared to have the same amount of authority.	
3	Over the last two lessons my co-teacher may have appeared to have more authority than me.	
2	Over the last two lessons it appeared that I had less authority than my co-teacher.	
1	Over the last two lessons it appeared that I had no authority in the classroom.	

Table 3 (continued)

	Teacher Impact	“X” One
5	I worked with all students.	
4	I worked with almost all students.	
3	I worked with many students, but I found myself focusing on students that have behavior issues or receive special education services.	
2	I worked with a few students, but they were mostly students that have behavior issues or receive special education services.	
1	I only worked with very few students, most of them receiving special education services.	

	Learning Accommodations and Strategies	“X” One
5	My partner and I implemented at least 5 accommodations and/or strategies over that last two lessons.	
4	My partner and I implemented 3-4 accommodations and/or strategies over the last two days.	
3	My partner and I implemented 1-2 accommodations and/or strategies over the last two days.	
2	My partner and I implemented 1 accommodations and/or strategies over the last two days.	
1	My partner and I did not attempt to implement any accommodations and/or strategies over the last two days.	

Comments/Clarifications:

Table 3 (continued)

**Teacher Reflection: (Complete at the end of the two week period)**

1. Do you and your co-teaching partner often vary your roles? Explain.
  
2. What are some of the drawbacks of your current teaching assignment?
  
3. Did you choose to enter this co-teaching assignment for the 2012-2013 school year or were you assigned? Explain.
  
4. After these past two weeks, do you feel the purpose of co-teaching is to help students improve socially or academically? Explain.
  
5. In your opinion, how important is it for both teachers to know and understand the content that is being taught?
  
6. In your opinion, how important is the implementation of different strategies for learning?

Table 4

A Description of Instruction for Each Model

Model	8 <sup>th</sup> Grade Day One	8 <sup>th</sup> Grade Day Two	9 <sup>th</sup> Grade Day One	9 <sup>th</sup> Grade Day Two
One Teach/One Assist	Speech Analysis: General educator read aloud JFK’s inaugural address with stop and start questioning. Special Educator assisted students and maintained all behavior issues.	Speech Response: General educator lead students in a written response to JFK’s inaugural address. Special educator assisted students during independent work time.	MLA Citations: General educator lead a PowerPoint presentation regarding citations in MLA format. Special educator managed classroom behavior and assisted students as necessary.	MLA Citations: Continued: General educator lead a PowerPoint presentation regarding citations in MLA format. Special educator managed classroom behavior and assisted students as necessary.
Station Teaching	Essay Writing: Station 1: Writing a Thesis Statement Station 2: Writing a Hook Station 3(Independent): Using the Thesis Statement and Hook to write essay	Essay Writing continued: Station 1: Revising Thesis Statement Station 2: Revising Hook Station 3 (Independent): Continue writing essay	Essay Writing: Station 1: Writing a Thesis Statement Station 2: Writing a Hook Station 3(Independent): Using the Thesis Statement and Hook to write essay	Essay Writing continued: Station 1: Revising Thesis Statement Station 2: Revising Hook Station 3 (Independent): Continue writing essay
Parallel Teaching	Analyzing Poetry: “The Death of Emmet Till” Both teachers began reading from poem and started a language analysis and discussion. Students divided into	Analyzing Poetry continued: “The Death of Emmet Till” Both teachers continued reading from poem and completed a language analysis and discussion.	Analyzing Poetry: “Sonnet” in <i>Romeo and Juliet</i> Both teachers analyzed the sonnet from <i>Romeo and Juliet</i> . Students divided into two groups, heterogeneous.	Analyzing Poetry continued: “Sonnet” in <i>Romeo and Juliet</i> Both teachers analyzed the sonnet from <i>Romeo and Juliet</i> and completed worksheet on William Shakespeare. Students divided

	two groups, heterogeneous.	Students divided into two groups, heterogeneous.		into two groups, heterogeneous.
Alternative Teaching	Analyzing Speeches: General educator took a larger group of students to read along with the “St. Crispins Day Speech” while the special educator took a small group that required additional literacy support to read the same speech.	Analyzing Speeches: General educator took large group to complete written response to “St. Crispins Day Speech” while special educator worked with a smaller group of students that required additional writing support.	Writing Prompt: Students were given a writing prompt the previous day. Special educator took a small group to complete the graphic organizer associated with the prompt. General educator remained with the larger group to facilitate them writing the essay associated with the graphic organizer.	Writing Prompt: Special educator continues to work with students to complete graphic organizer for writing support and also begin writing their essay. General educator remained with larger group to facilitate the completion of their essays.
Team Teaching	Analyzing Poetry: Both teachers lead the students in reading “Richard Cory” and “The Builders”. Both teachers respond to all students and participate in content delivery.	Analyzing Poetry: Both teachers facilitated the written response to the poems from the previous day. Both teachers provided instruction and moved around the room to provide added support.	Analyzing Prompt and Rubric: Both teachers shared in the instruction of the prompt for the common assessment and the rubric that would be used to grade their writing sample.	Analyzing Prompt and Rubric: Both teachers introduced a graphic organizer for arranging the written response and the brainstorming process. Students began work on graphic organizers, both teachers assisted all students.

Table 5  
 Student Teaching Model Post Hoc Comparison  
 Results of post hoc all possible pair wise comparison for teaching model (TM).

(i) TM	(j) TM	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-0.417	0.269	0.135	-0.972	0.139
	3	0.250	0.409	0.547	-0.597	1.097
	4	-0.667*	0.280	0.026	-1.246	-0.087
	5	-0.583*	0.269	0.040	-1.139	-0.028
2	1	0.417	0.269	0.135	-0.139	0.972
	3	0.667	0.393	0.103	-0.147	1.480
	4	-0.250	0.211	0.247	-0.686	0.186
3	5	-0.167	0.293	0.575	-0.772	0.439
	1	-0.250	0.409	0.547	1.097	0.597
	2	-0.667	0.393	0.103	-1.097	0.597
	4	-0.917*	0.340	0.013	-1.480	0.147
4	5	-0.833*	0.333	0.020	-1.523	-0.144
	1	0.667*	0.280	0.026	0.087	1.246
	2	0.250	0.211	0.247	-0.186	0.686
	3	0.917*	0.340	0.013	0.213	1.620
	5	0.083	0.208	0.692	-0.347	0.513
5	1	0.583*	0.269	0.040	0.028	1.139
	2	0.167	0.293	0.575	-0.439	0.772
	3	0.833*	0.333	0.020	0.144	1.523
	4	-0.083	0.208	0.692	-0.513	0.347

Note - \* indicates significant mean difference between student confidence across categories.



Table 6  
 Student Teacher Authority Post Hoc Comparison  
 Results of post hoc all possible pair wise comparison for teacher authority (TA).

(i) TA	(j) TA	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-0.571	0.289	0.062	-1.175	0.032
	3	0.143	0.270	0.602	-0.420	0.706
	4	-0.524	0.306	0.102	-1.161	0.114
	5	-0.476	0.255	0.076	-1.007	0.055
2	1	0.571	0.289	0.062	-0.032	1.175
	3	0.714*	0.317	0.036	0.052	1.376
	4	0.048	0.176	0.789	-0.319	0.414
3	5	0.095	0.194	0.629	-0.309	0.500
	1	-0.143	0.270	0.602	-0.706	0.420
	2	-0.714*	0.317	0.036	-1.376	-0.052
	4	-0.667	0.347	0.069	-1.391	0.058
4	5	-0.619	0.327	0.073	-1.301	0.063
	1	0.524	0.306	0.102	-0.114	1.161
	2	-0.048	0.176	0.789	-0.414	0.319
	3	0.667	0.347	0.069	-0.058	1.391
	5	0.048	0.129	0.715	-0.221	0.316
5	1	0.476	0.255	0.076	-0.055	1.007
	2	-0.095	0.194	0.629	-0.500	0.309
	3	0.619	0.327	0.073	-0.063	1.301
	4	-0.048	0.129	0.715	-0.316	0.221

Note - \* indicates significant mean difference between student confidence across categories.

Table 7

## Student Confidence Post Hoc Comparison

Results of post hoc all possible pair wise comparison for student confidence (SC).

(i) SC	(j) SC	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-0.682*	0.202	0.028	-1.314	-0.050
	3	-0.091	0.254	0.062	-1.570	0.024
	4	-0.636	0.224	0.097	-1.337	0.065
	5	-0.682*	0.212	0.042	-1.347	-0.017
2	1	0.682*	0.202	0.028	0.050	1.314
	3	-0.091	0.236	1.000	-0.832	0.650
	4	0.045	0.123	1.000	-0.339	0.430
3	5	0.000	0.186	1.000	-0.583	0.583
	1	0.773	0.254	0.062	-0.024	1.570
	2	0.091	0.236	1.000	-0.650	0.832
	4	0.136	0.231	1.000	-0.587	0.860
4	5	0.091	0.236	1.000	-0.650	0.832
	1	0.636	0.224	0.097	-0.065	1.337
	2	-0.045	0.123	1.000	-0.430	0.339
5	3	-0.136	0.231	1.000	-0.860	0.587
	5	-0.045	0.154	1.000	-0.527	0.437
	1	0.682*	0.212	0.042	0.017	1.347
	2	0.000	0.186	1.000	-0.583	0.583
	3	-0.091	0.236	1.000	-0.832	0.650
	4	0.045	0.154	1.000	-0.437	0.528

Note - \* indicates significant mean difference between student confidence across categories.

Table 8  
 Student Learning Post Hoc Comparisons  
 Results of post hoc all possible pair wise comparison for student learning (SL).

(i) SL	(j) SL	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-0.167	0.143	0.257	-0.463	0.130
	3	-0.458*	0.147	0.005	-0.763	-0.154
	4	-0.458*	0.134	0.002	-0.736	-0.180
	5	-0.292*	0.127	0.032	-0.555	-0.028
2	1	0.167	0.143	0.257	-0.130	0.463
	3	-0.292	0.175	0.110	-0.654	0.071
	4	-0.292*	0.141	0.050	-0.583	0.000
3	5	-0.125	0.125	0.328	-0.384	0.134
	1	0.458*	0.147	0.005	0.154	0.763
	2	0.292	0.175	0.110	-0.249	0.249
	4	0.000	0.120	1.000	-0.249	0.249
4	5	0.167	0.143	0.257	-0.130	0.463
	1	0.458*	0.134	0.002	0.180	0.736
	2	0.292*	0.141	0.050	0.000	0.583
	3	0.000	0.120	1.000	-0.249	0.249
5	5	0.167	0.098	0.103	-0.037	0.370
	1	0.292*	0.127	0.032	0.028	0.555
	2	0.125	0.125	0.328	-0.134	0.384
	3	-0.167	0.143	0.257	-0.463	0.130
	4	-0.167	0.098	0.103	-0.370	0.037

Note - \* indicates significant mean difference between student confidence across categories.

Table 9  
 Student Classroom Management Post Hoc Comparisons  
 Results of post hoc all possible pair wise comparison for classroom management (CM).

(i) CM	(j) CM	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-0.708*	0.304	0.029	-1.337	-0.080
	3	-0.500	0.289	0.097	-1.097	0.097
	4	-0.625*	0.275	0.032	-1.193	-0.057
	5	-0.500	0.282	0.090	-1.084	0.084
2	1	0.708*	0.304	0.029	0.080	1.337
	3	0.208	0.208	0.328	-0.223	0.639
	4	0.083	0.199	0.679	-0.328	0.495
3	5	0.208	0.269	0.447	-0.348	0.765
	1	0.500	0.289	0.097	-0.097	1.097
	2	-0.208	0.208	0.328	-0.639	0.223
	4	-0.125	0.139	0.377	-0.412	0.162
	5	0.000	0.276	1.000	-0.571	0.571
4	1	0.625*	0.275	0.032	0.057	1.193
	2	-0.083	0.199	0.679	-0.495	0.328
	3	0.125	0.139	0.377	-0.162	0.412
	5	0.125	0.250	0.622	-0.393	0.643
5	1	0.500	0.282	0.090	-0.084	1.084
	2	-0.208	0.269	0.447	-0.765	0.348
	3	0.000	0.276	1.000	-0.571	0.571
	4	-0.125	0.250	0.622	-0.643	0.393

Note - \* indicates significant mean difference between student confidence across categories.

Table 10  
 Teacher Classroom Management Post Hoc Comparisons  
 Results of post hoc all possible pair wise comparison for classroom management (CM).

(i) CM	(j) CM	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-3.000*	0.316	0.001	-4.2685	-1.7315
	3	-2.500*	0.31623	0.003	-3.7685	-1.2315
	4	-3.000*	0.31623	0.001	-4.2685	-1.7315
	5	-3.000*	0.31623	0.001	-4.2685	-1.7315
2	1	3.000*	0.31623	0.001	1.7315	4.2685
	3	0.500	0.31623	0.563	-0.7685	1.7685
	4	0.000	0.31623	1.000	-1.2685	1.2685
3	5	0.000	0.31623	1.000	-1.2685	1.2685
	1	2.500*	0.31623	0.003	1.2315	3.7685
	2	-0.500	0.31623	0.563	-1.7685	0.7685
	4	-0.500	0.31623	0.563	-1.7685	0.7685
4	5	-0.500	0.31623	0.563	-1.7685	0.7685
	1	3.000*	0.31623	0.001	1.7315	4.2685
	2	0.000	0.31623	1.000	-1.2685	1.2685
	3	0.500	0.31623	0.563	-0.7685	1.7685
	5	0.000	0.31623	1.000	-1.2685	1.2685
5	1	3.000*	0.31623	0.001	1.7315	4.2685
	2	0.000	0.31623	1.000	-1.2685	1.2685
	3	0.500	0.31623	0.563	-0.7685	1.7685
	4	0.500	0.31623	1.000	-1.2685	1.2685

Note - \* indicates significant mean difference between student confidence across categories.

Table 11

## Teacher Implementation Post Hoc Comparisons

Results of post hoc all possible pair wise comparison for implementation (IMP).

(i) IMP	(j)IMP	Mean Difference (i-j)	SE	sig	95% C.I. for Difference	
					Lower Bound	Upper Bound
1	2	-2.500*	0.54772	0.030	-4.6972	-0.3028
	3	-2.000	0.54772	0.070	-4.1972	0.1972
	4	-3.500*	0.54772	0.007	-5.6972	-1.3028
	5	-3.500*	0.54772	0.007	-5.6972	-1.3028
2	1	2.500*	0.54772	0.030	0.3028	4.6972
	3	0.500	0.54772	0.881	-1.6972	2.6972
	4	-1.000	0.54772	0.450	-3.1972	1.1972
3	5	-1.000	0.54772	0.450	-3.1972	1.1972
	1	2.000	0.54772	0.070	-0.1972	4.1972
	2	-0.500	0.54772	0.881	-2.6972	1.6972
	4	-1.500	0.54772	0.178	-3.6972	0.6972
	5	-1.500	0.54772	0.178	-3.6972	0.6972
4	1	3.500*	0.54772	0.007	1.3028	5.6972
	2	1.000	0.54772	0.450	-1.1972	3.1972
	3	1.500	0.54772	0.178	-0.6972	3.6972
	5	0.000	0.54772	1.000	-2.1972	2.1972
5	1	3.500*	0.54772	0.007	1.3028	5.6972
	2	1.000	0.54772	0.450	-1.1972	3.1972
	3	1.500	0.54772	0.178	-0.6972	3.6972
	4	0.000	0.54772	1.000	-2.1972	2.1972

Note - \* indicates significant mean difference between student confidence across categories