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**EFFECTS OF PROFESSIONAL DEVELOPMENT ON CO-TEACHING ON
5TH GRADE STUDENTS WITH EXCEPTIONAL LEARNING NEEDS**

by
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A Thesis

Submitted to the
Department of Interdisciplinary and Inclusive Education
College of Education
In partial fulfillment of the requirement
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Master of Arts in Special Education
at
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May 1, 2016

Thesis Chair: S. Jay Kuder, Ed.D.

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Abstract

Wade J. Chilmonik

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2015-2016

S. Jay Kuder, Ed.D

Master of Arts in Special Education

This study examined the effects of professional development in co-teaching to see if it can improve teaching relationships and the classroom achievement of 5th grade students with exceptional learning needs. This study included eight educators with experience levels from two to thirty five years. All of the educators in the study were teachers of students with and without disabilities who worked in co-teaching classrooms in the middle school subject areas of language arts, social studies, math and science. The participants consisted of 6 white females and 2 white males, ages 26-62.

There were ten middle school students that also participated in the study. The students were 5th graders ages 10 and 11. Six of the students were boys and four of the students were girls. Five of the students had disabilities and five of them were without disabilities. The disabilities represented in the study have to do with learning disabilities. The disabilities represented are attention deficit hyperactivity disorder ADHD, autism and reading disability. The students have been placed in a co-teaching environment because it is the least restrictive environment for their learning.

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Chapter 1

Introduction

As a special education teacher in a public school setting, I have experienced co-teaching and have also experienced some resistance by some of my general education colleagues to embrace the benefits that many of us have experienced with successful co-teaching. The practice of co-teaching has been around for nearly 25 years. Co-teaching involves two equally qualified individuals who may or may not have the same area of expertise, jointly delivering instruction to a group of students. More specifically, it is an instructional delivery approach where both educators share responsibility for planning, delivery and evaluation of instructional techniques for a group of students. The reason co-teaching is implemented is so that special education students are able to learn in the least restrictive environment as possible. By learning in a less restrictive environment the student has a better chance of achievement academically and socially. (Silo, 2003).

Several researchers have consistently reported that collaboration between general and special education teachers is essential to the education of students with disabilities in the general education classroom (Daane et al., 2000; Fennick & Liddy, 2001; Kurtts, Hibbard, & Levin, 2005).

The research question for this study is: Can professional development in co-teaching improve teaching relationships and classroom achievement of 5th grade special education students? My hypothesis is that professional development will increase student performance and create a more positive teaching environment.

There are four different types of co-teaching variations according to Scruggs, Mastropiere and McDuffie. The variations are as follows: interactive teaching, station

teaching, parallel teaching and alternative teaching. For the purpose of this study the interactive teaching variation will be used. Interactive teaching is used in a whole group setting where the teachers alternate the roles of presenting, reviewing and monitoring the lesson.

The results of this study could be used to help improve our schools co-teaching relationships. According to James Walsh, a Maryland educator, “In my experience as a special education administrator in Maryland during this 20 year period, co-teaching can be described as a high-leverage school system strategy that can result in continuous improvement for all students and accelerated achievement for students with disabilities, when implemented with the necessary system-level supports and strategies that are described in this article”.

Some sub-questions are as follows:

Will collaborative co-teaching increase student grades?

Will the role of special educators role in the classroom change following professional development for co-teaching?

Will professional development improve the environment in co-teaching classrooms?

Defining Key Terms

Collaborative Teaching/Co-Teaching – Describes an instructional delivery method where two teachers work together within the same classroom to meet the instructional needs of students with and without disabilities.

Professional Development – A series of staff trainings utilized to enhance participants knowledge on the topic of collaborative teaching.

Relationships – The way in which two or more people or things are connected or involved with each other.

Inclusion – In education, this term refers to an approach where students with special educational needs spend most or all of their time with non-disabled students in a general education classroom.

Exceptional Learners – A student whom requires special instruction or related services to fully benefit from education.

Special Education Teacher – Those teaching students with disabilities.

Content Teacher/General Education Teacher – Those teaching students without disabilities.

Child Study Team – A multidisciplinary group of professionals typically employed by the board of education to provide parents and teachers with a variety of learning related services. Services which may include but not limited to a psychologist, learning disabilities consultant, social worker and speech/language therapist.

School Based Supports – Supports provided to a co-teaching team to improve the collaborative teaching experience.

One possible implication for this study might be that a positive difference would be found in the teachers' perceptions of co-teaching. With this positive perception, collaboration between the two teachers would be stronger. A stronger relationship will bring a better learning experience for all learners in the classroom. While conducting my research I plan on surveying and interviewing many special education and regular education colleagues. The research for this project will most likely be mixed-methods research.

A second possible implication for my study might be that if professional development was given to teachers then an improvement would occur in collaborative relationships. This improvement in turn would have a positive impact on student achievement in the classroom. The students would not be as bored and more engaged in learning by having two teachers working together. Research has shown that, “Teaching partners need to communicate openly about issues that arise. The situation corresponds to newly married couples: Each person enters the relationship with diverse individual and cultural mores, which must be meshed to form a harmonious home. Co-teachers come together with dissimilar personal and professional values that they must identify, state, and combine in an effort to create positive academic and social climates for all students in their classroom settings. In a recent study, Scruggs and colleagues (2007) found that co-teachers believe personal compatibility is the most important factor for co-teaching success. Thus, once teachers understand the definition of co-teaching they can begin to talk about the practicalities of their relationship”, (Sileo, 2011).

A possible negative implication is that even with all of the training and strategies two teachers just aren't able to put aside their differences and get along; thus, harboring a negative relationship in the classroom and a negative outcome on student achievement. It's possible that this type of teaching environment could distract not only the general education students but the special education students as well.

If the proper channels are not followed for co-teaching and professional development it is possible that this type of teaching style will not work.

One barrier to this study could be biases either for or against co-teaching and professional development. Another barrier might be the possibility of not being able to find enough solid evidence that co-teaching can impact student achievement.

Chapter 2

Literature Review

Introduction

Over the last twenty years the topics of inclusion, co-teaching and collaboration in the classroom have become a major area of focus. Co-teaching, inclusion and collaboration are all important aspects in the special education classroom. Teachers who are co-teaching need to successfully collaborate in order to have successful students in the inclusion classroom. As educators and leaders, an important question that should be continually asked is what can be done to promote a seamless transition of individuals with exceptional learning needs across educational and other programs from birth through adulthood. According to the article, Bright Futures for Exceptional Learners, (Anonymous July/August 2000), “If students with exceptionalities do not acquire the necessary knowledge, skills and strategies during their years in school, a life of underachievement, dependence, and discouragement awaits them. The long-term losses experienced by these individuals, their families and society are immense. Students with disabilities often cannot achieve unless they are taught by the very best teachers using the very best interventions under the very best conditions” (p. 58).

Co-Teaching

Co-teaching/collaboration is an excellent tool to expose exceptional learners to the best educational experience they can have. The best way to describe co-teaching is that it is similar to co-parenting; each “teacher” is responsible for teaching the same lesson in the best possible way for their student to understand and learn. Inclusion and co-teaching are great tools to be able to get students ready to cooperatively work with other individuals in a real life setting throughout their lives. There are different types of

co-teaching variations according to Scruggs, Mastropiere and McDuffie (2007). Scruggs et al (2007) describe the most common variations: one teaches/one assists, interactive teaching, station teaching, parallel teaching and alternative teaching. The one teaches/one assists approach is when one teacher leads the lesson for the whole class, while the other teacher provides support and behavioral management to individual students or small groups. The interactive model is when both co-teachers share curriculum planning, teaching, and other classroom responsibilities equally. The station model is when the co-teachers provide individual support to students at learning stations set up around the classroom. Parallel teaching is when co-teachers present the same or similar material to different groups of students in the same classroom. Lastly, alternative teaching occurs for a limited period of time when one teacher provides specialized instruction to a smaller group of students in a different location.

In order for co-teaching to be successful, research has shown that the educators must be willing to collaborate with one another. In 2001 a study was conducted by Austin using the collaborative model of teaching. The study focused on the teachers' perceptions of collaboration as well as the effects collaboration had on student learning. Austin (2001) stated that, "Current trends in public education, despite the reservations presented in position papers by advocacy groups such as the LDA, the Council for Learning Disabilities (CLD; 1993), and the National Joint Committee on Learning and Disabilities (NJCLD; 1993) are moving in the direction of greater inclusion for students with disabilities" (Austin, 2001, p. 245). The article, "Teachers' Beliefs About Co-Teaching" (Austin, 2001), states that because a collaborative model is both recommended and used in inclusive classrooms, one might infer that the interaction of co-teachers has

been examined extensively and that the criteria for an ideal model have been defined. At the time of this particular study only a few studies had been conducted to support the idea. However, over the past twenty years there have been many studies conducted to support this teaching model.

A study of teacher's beliefs about co-teaching by Austin (2001) included 139 teachers in collaboratively-taught classrooms from Northern New Jersey who taught grades kindergarten through 12th grade. The teachers were from nine different middle income school districts located in one county. The teachers that participated in this study had already been working in a collaborative environment for at least one semester. The average class size was approximately 27 to 31 students; student-to-faculty ratio was 12.0 to 13.7. 46 special education teachers participated; 40 of them specialized in high-incidence learning disabilities, 4 of them worked with emotionally disturbed students and the other 2 worked with students that had severe and multiple disabilities. Surveys and interviews were conducted to complete they analysis of the study. The demographic data revealed that the majority of the co-teachers taught social studies, the sciences, English/language arts, and mathematics, (Austin, 2001). An important discovery in this study was that the majority of co-teachers surveyed and interviewed had not volunteered for the experience but a large percentage indicated that they considered co-teaching worthwhile. The researcher stated the most compelling outcome of the study was that special education and general education co-teachers agreed that the general education co-teachers do more than their special education partners when in an inclusion classroom. This is most likely due to the fact that the general education co-teacher is thought of as the expert in the subject matter whereas the special education co-teacher is viewed as

more of a visitor in the classroom. Another conclusion the researcher came to based on the study is that special education co-teachers may find it more useful to take pre-service courses and training in collaborative teaching because they are most likely the ones to be placed in an inclusive classroom. However, it is most likely best for all parties involved if the special education and general education teachers both take courses in collaboration and co-teaching to ensure that both parties are on the same page and are acting in the best interest of the students. Austin (2001) concluded that among the teachers interviewed they believed that co-teaching had a positive outcome not only on their students' academic development but also on their social development. One negative outcome of the study showed that some of the special education students had observed poor behavior by the general education students and then began to copy of those bad behaviors. Another negative outcome was that some of the special education students can be disruptive in the classroom, thus deterring the other students from learning.

On a positive note, interview results supported previous studies conducted that co-teachers were pleased with student participation and acceptance of others differences along with cooperation of the general education teachers. The study found that there is definitely more research needed to be done in order to prove the effectiveness of collaborative/co-teaching; however, it appears that back in 2001 these particular schools in Northern New Jersey were on the right track for promoting positive co-teaching results and experiences. Support of school administration is always necessary in order make a particular practice effective. This study was no exception, (Austin, 2001) administrators, staff, faculty and parents are a necessary part of making an inclusive program effective.

The Austin (2001) study concluded that, the inclusion model is gaining wide acceptance in education. Because of this, school districts should be providing teachers more training in the model in order to help prepare them to serve successfully in inclusion classrooms. By ignoring this students and teachers will be missing out on a positive inclusion classroom experience.

An important piece of co-teaching and collaboration is the relationship between the special education teacher and general education teacher. Without an understanding of one another and without compatibility on some level it is likely that a co-teaching relationship could be unsuccessful and not be beneficial to the students. Noonan, McCormick and Heck (2003) conducted a study that examined co-teacher relationships as an application for professional development. They state that the strength of the co-teaching model is due to the fact that both educators pool their strengths in order to meet instructional and social needs of all students in an inclusive classroom. “Most arguments for benefits of co-teaching derive from logic rather than data. Certainly it is reasonable to assume that a classroom with two teachers is superior to a classroom with only one teacher. In fact, this may not be the case at all if the teachers are not able to relate to one another in a positive and constructive manner. What is needed is a reliable picture of what contributes to successful co-teaching,” (Noonan, McCormick & Heck, 2003).

The study’s participants were co-teachers and supervisors, (Noonan, McCormick & Heck, 2003). The purpose was to evaluate the reliability of a questionnaire that was designed to rate how co-teachers related to one another on the CRS, which is short for the Co-Teaching Relationship Scale, as well as how their self-ratings compared to the ratings received by their supervisors. Twenty co-teachers in one culturally diverse school

completed the CRS and two program supervisors participated in the study. The CRS was designed to explore co-teachers' perceptions on the similarity of their personal/professional qualities compared to their co-teacher partners. The questionnaire had 19 items in 3 categories. The categories were as follows: personality traits, beliefs and approaches to teaching and professional/personal characteristics. There was a separate version created for the supervisors so that they could rate the "sameness" of the co-teacher pairs. The questionnaire was administered to 20 co-teachers that were attending a regularly scheduled preschool inclusion meeting. Their participation was voluntary and all 20 instructors did complete the surveys. The supervisors completed their surveys within one week following the workshop. The highest score possible on each questionnaire was 95. The mean outcome was as follows according to Table 3 in the article:

ECE Co-Teachers – 86.0

ECSE Co-Teachers – 78.7

Head Start Supervisor – 76.7

Special Education Supervisor – 69.6

The study didn't produce the outcome the researchers were looking for. However, they did discover that this type of evaluation could be used as part of a component of an annual teacher and program evaluation process. This would help in providing one piece of the picture of the success of the co-teaching partnership. They also discovered that a problem in the application of the co-teaching model has been the assumption that the teachers came to the co-teaching setting with well-developed teaming and communication skills, (Noonan, McCormick & Heck, 2003). A few limitations

according to the study are that cultural differences had an effect on ease of communication within teams and team-members' perceptions of their similarities and differences. In addition, they believe the most serious limitation is that the CRS has not yet been field tested in formative or summative evaluation activities. The authors indicated that for future research that in the case of newly formed co-teacher teams, discussing their independently-rated CRS items could assist the teams to learn about one another's perspectives, (Noonan, McCormick and Heck, 2003).

According to Samuels (2015), co-teaching is meant to provide specialized services to students with disabilities in regular classrooms, while ensuring they also get access to the same academic material as their peers. Samuels (2015), reported that in 2003 nearly half of school-age children with disabilities spent most of their time in general education classrooms and by 2013 that number had risen to 61 percent. He attributes that change to the increased use of co-teaching in classrooms. However, if co-teaching is poorly implemented it can have a negative effect on the student. According to Marilyn Friend, "when co-teaching is really, really strong, it is clear that there are two different teachers with two different types of expertise.....and when it's not strong, you might as well keep pulling kids out of the classroom because they are not going to get what they need", (Samuels, 2015). The co-teaching model has received new energy recently; policy initiatives at the state and federal level have given collaboration a new urgency. One example of this is, "The No Child Left Behind Act", and this act has pushed for all classrooms to be staffed by "highly qualified" teachers. However, special educators who are co-teaching do not have to meet that requirement if they are working with a partner who is highly qualified in a core subject. The US Department of

Education is also urging states to take a closer look at boosting their inclusion rates, (Samuels, 2015). The Samuels article also states that co-teaching doesn't necessarily look the same in every school or in every district and in some cases, not even for every teacher. Samuels also states that college and career-ready standards have created their own incentives to get more students in special education learning the regular grade-level curriculum.

Samuels (2015) described several co-teaching situations. For example, he recounted the experience of a special education teacher in Wyckoff, NJ who had a hectic schedule that left her feeling like an aide instead of a teacher. After creating a better schedule with her colleagues at the suggestion of her administration she now spends the entire day in one classroom. Occasionally she does the entire group lesson and sometimes the general education teacher does the entire lesson. On occasion she will take a small group of general and special education students to teach a lesson, (Samuels, 2015). Another teacher in Connecticut said that in her experience both teachers push each other to be at their best for the students. She believes that without the proper resources and instruction, teachers will get burnt out on inclusion classrooms if they aren't working with their co-teacher in a productive manner.

Samuels says that states and school districts are working together to create common co-teaching practices. If the special education and general education instructors are on the same page it will only create a positive and successful learning environment for the students. In 2012 the state of Kentucky launched a statewide co-teaching initiative. They called it "Co-Teaching for Gap Closure"; it stressed that all regular and special education teachers are both responsible for the success of all of the children in

their classroom. The teachers that did participate realized that once they understood how co-teaching really worked they could help their students become successful in education and social aspects.

Jane Sileo (2011) had examined prior research conducted on co-teaching as well as comparing that research to a new co-teaching partnership. In the article, Sileo described the experiences of two teachers: Mr. Salvatore and Ms. Happa, who were the guinea pigs for the school's new co-teaching partnership. Mr. Salvatore was a 15 year veteran in the 4th grade classroom. Ms. Happa was a 7 year veteran; however, she was new to this particular school. Ms. Happa was initially happy in the arrangement because she was acting more in a supporting role, as she had done in the past. However, as time went on she wanted more opportunities to interact with the students and also to implement some of her own teaching ideas.

Sileo (2011) states that co-teachers need time to have a development phase of their co-teaching relationship just as those do when beginning to date someone. By skipping the developmental phase it could lead to misunderstandings and communications problems, which ultimately causes a negative effect on the students. Teachers need time to develop a strong relationship before being thrown together in a co-teaching classroom. If the children sense tension or miscommunication they themselves could become confused and frustrated and not know which teacher they should be asking for help. As in any type of relationship, in order for it to be successful communication must be effective. "Co-teachers believe personal compatibility is the most important factor for co-teaching success", (Scruggs et al 2007). In the case of Mr. Salvatore and Ms. Happa their situation was a rushed arrangement and they did not have any time to

discuss their strategies prior to diving right in. However, they were able to recognize the weaknesses in their relationship very early on and were able to work together to rectify the problems in order to create a successful and positive environment for everyone. They did have common ideas about discipline, communicating with parents and classroom space. And when they didn't necessarily agree on something they were able to make a compromise. They both recognized the importance of parent-teacher interactions. When they were able to, they communicated jointly with all parents. For example, on back to school night, both teachers co-presented and overview of the school year and discussed other possible classroom events throughout the year. This showed a united front and allowed for parents to see both teachers as equals. (Sileo 2011) believes that "communication with parents is essential in building strong collaborative and co-teaching relationships, which ultimately benefit students". There are various problem solving models that can be modified and used in order for co-teachers to create a successful co-teaching environment; Sileo 2011 references Sinclair's 1998 classic model:

1. Identify the issues
2. Develop alternative courses of action
3. Analyze the risks and benefits of each course of action
4. Choose a course of action
5. Take action
6. Evaluate results of the action
7. Assume responsibility for the consequences, correct potentially negative consequences, or re-engage in the decision-making process

Sileo (2011) concludes that the key to success in any relationship whether it be marriage or co-teaching is compromise and collaboration. She believes that co-teaching partners need to communicate to ensure that the relationship focuses on the most important thing, which is the academic and social development of their students.

Co-Teaching Outcomes

A study was conducted during the 2004-2005 school year to identify teachers' and students' perspectives of co-teaching and the efficacy of this teaching approach (Hang and Rabren, 2009). 58 students with disabilities and 45 co-teachers participated in the study. The co-teachers included 31 general education teachers and 14 special education teachers. All participants were new to co-teaching during that school year. Surveys, observations and review of records were used to determine the outcome of the study, (Hang and Rabren, 2009). There were two objectives of this study; first, was to identify teacher's perspectives of students with disabilities, second was to determine the effectiveness of co-teaching with the use of the student's behavior and academic records. The students with disabilities SAT (Stanford Achievement Test) scores, attendance records and discipline referrals from the year of co-teaching compared with their records from the year before co-teaching was introduced. The study took place in a southeastern U.S. public school district, which included four elementary schools, one middle school, one junior high school and one high school. Subject matters taught in this study were language arts, math, science and social studies. Surveys were used to measure students' and co-teachers' opinions and attitudes towards co-teaching. The teachers' surveys utilized a scale of 0-4, strongly disagree to strongly agree to rate the items in question. Four major areas were the focus of the surveys. The teachers' surveys questioned:

components of co-teaching, teachers' roles and responsibilities, and teachers' expectations & planning schedule. The students' surveys focused on difference between resource classroom and co-taught classroom, student's expectations, challenges and advantages and/or disadvantages. Participant codes were given to the instructors and students so that names were not used. Only 50% of the special education students that participated in the survey actually completed them.

Observations were also conducted for the study. The observations were conducted in single classrooms during co-teaching class periods during an entire class period. The teachers were asked not to make any modifications to their typical routine. The observers were randomly selected by the co-teaching team conducting the research. The consistency of co-teaching observed by the observers in the 15 classrooms was 94%. Based on those numbers, co-teaching practices were being implemented.

Student academic and behavior performance were also minimally examined in the study. SAT national percentile rankings from the previous school year were compared with the records from the academic year of the co-teaching study. The reasoning for this was to determine if the special education students achieved any significant gain academically or behaviorally.

Hang and Rabren (2009) concluded that co-teaching practices were in fact being implemented in the classrooms that were observed. The academic performance of students improved the year that co-teaching was introduced as compared with the increase rate of all students; however there was not a significant difference. As for the behavioral performance, statistically there were significant differences in absence records and discipline referrals during the co-teaching year. Further research should be

conducted to determine why the behavioral performance did not improve. The results of the teachers' surveys indicated that 100% of the participants believed that a weekly planning period and comprehensive planning period were necessary. 90% of the general education teachers believed they were the one's mainly responsible student monitoring and 93% of the special education teachers believed that they were the one's primarily responsible. It appears that clarification should be made as to who is responsible.

Limitations to the Hang and Rabren (2009) study were the lack of a control group, thus there weren't any differences examined between co-taught classrooms and traditionally taught classrooms. Another limitation was that there was a wide range of grade levels observed/surveyed for the study, which may have led to many generalizations in the findings. Long-term effects of co-teaching were not focused on in this study due to the fact that it was the first year co-teaching was being utilized in the school. However, there were some positive outcomes of this study; "according to teachers' and students' perspectives, positive benefits, as well as challenges and issues of co-teaching were identified", (Hang and Rabren, 2009). Despite the fact that there wasn't any statistical information found, the students and teachers both had positive perspectives on co-teaching. Students with disabilities showed an increase in self-confidence and exhibited better behavior in the co-taught classroom according to the teacher surveys; however, based on the behavioral records, that was not the case.

A previous study by Dieker (2001) was referenced by Hang and Rabren (2009), stating that in a prior study examining students' perspectives on co-teaching, it was discovered that students that were taught by effective co-teaching teams had an overall satisfaction with co-teaching. Although some students did express the fact that they were

confused when faced with two teachers because they would receive different explanations from the different teachers. According to Hang and Rabren (2009), several studies have shown positive perceptions of co-teaching. Teachers not only believe their students improve their education performance, but that they also see improvements with the student's social skills, self-confidence and relationships with other students. In order for co-teaching to be effective, teachers must do the following; get to know each other, share teaching skills, perspectives and philosophies; and they also need to discuss their co-teaching strategies.

Mastropieri, et al (2005), reviewed four case studies on co-teaching and documented successes, failures and challenges. The subjects taught in the co-teaching studies ranged from elementary to high school and the content areas were earth science, social studies, world history and chemistry. These studies took place over a time frame of one semester to two years. Mastropiere, et al (2005), hoped that by examining these practices over broad content areas and broad grade levels they would be able to come to some general conclusions regarding co-teaching. In all cases studied the data sources were classroom observations, field notes, interviews with students and teachers, videotapes of classes as well as samples of homework, tests and class activities. Qualitative and inductive research methods were used in all studies examined.

The first study reviewed was in upper elementary and middle school earth science. One co-teaching team was in fourth-grade and the other was in seventh-grade. The fourth grade class consisted of a total of 25 students, 5 of the students were special needs. The special needs student's disabilities ranged from emotional disturbance, mental retardation, learning disabilities and physical disabilities. The seventh grade class

also consisted of 25 students, 7 of those students were special needs. Their disabilities were either learning or emotional disabilities, with the exception of one student that was hearing impaired.

The ecosystem was being taught in both classrooms at the time of the study. The unit taught similarly in both classrooms; however, the seventh grade class unit was taught at a bit more advanced level. Based on observations both teams revealed many similarities as to how collaboration and co-teaching occurred in their classrooms. According to Mastropieri et al (2005), each team appeared to have the following characteristics:

- A. Outstanding working relationships
- B. Strengths as motivators
- C. Time for co-planning
- D. A good curriculum
- E. Effective instructional skills
- F. Exceptional disability-specific teaching adaptations
- G. Expertise in the content area

The fourth grade teachers had requested to co-teach, whereas the seventh grade teachers had been assigned to co-teach. However, based on observation both teams appeared at ease, helped each other out and even joked with one another. Both teams also indicated that they trusted their counterparts, which helped facilitate a positive teaching environment for the students. They also made time for co-planning. The fourth grade team did not have co-planning time blocked out during their school day so they met before or after school to discuss the responsibilities of each team member and also the

unit being taught. The seventh grade team had a free period during the day, which allowed them to schedule co-planning during that time. The fourth grade teachers enjoyed each other's company, but all agreed it would be better if they had a designated time during the school day to conduct their co-planning. It was observed that not only were effective classroom management skills in place both teams also used effective instructional skills. Teachers used a framework that was consistent on a day to day basis, which allowed for the students to become accustomed to the way the class would be conducted. All teachers that were observed indicated that they used reinforcements to reward positive student behavior, which the students responded positively to.

Teaching adaptations were needed in order for the students with disabilities to be successful with the unit and activities associated. The teachers addressed individual student performance to date within the unit and how to handle individual differences in upcoming lessons. The fourth grade special education teachers worked with the students that required adaptations while the general education teachers worked with the rest of the students. The seventh grade team used PowerPoint presentations that could be used as supplemental information for the special needs students. Pictures were also used to help the students better understand the concept being taught (Mastropieri et al, 2005).

As far as expertise for the fourth grade class in the content area, the general education teacher was the science subject expert while the special education teacher was the expert in adaptation. However, both teachers deferred to each other during instruction in order for all of the students to benefit. The teachers often exchanged roles as the presenter even though one was the so-called expert in the subject matter. For the seventh grade team the general education teacher visibly appeared to have an advantage

over the special education teacher when it came to content knowledge. The special education teacher turned that into a positive aspect and said that she felt she was learning a lot that she could use later in her teaching. The special education teacher took on the role of assisting individuals in small groups during class presentations while the general education teacher presented the lesson (Mastropiere et al, 2005).

In case 2 of the Mastropiere et al, (2005) an eighth grade middle school social studies class was observed that consisted of a total of 30 students, 8 of which had learning or emotional disabilities. One man and one woman were assigned to each team in this case and both the general education teacher and special education teacher had many years of teaching experience. In this case quite a few collaboration struggles emerged despite the fact that there were positive examples of collaboration observed. Co-planning, teaching styles and behavior management were observed during the study. Although both teachers had incorporated planning time to review plans for the next school week, that time was also meant for the individual teacher to work on parent conferences, IEP meetings and individual planning time. In the beginning of the school year both teachers made time during one period a week to discuss upcoming units and lessons in civics. Many of those meetings included members of the university research team. At first the teachers appeared to be very positive and willingly discussed ways to divide the teaching responsibilities. Content that was considered difficult for students to learn was often the topic of conversation. Depending on what social studies topic that was going to be discussed, sometimes the general education teacher would take the lead and had very specific ideas about the kind of activities that would take place. On other occasions the special education teacher would take the lead; her strength was when an

activity involved multiple steps. The special education teacher would create worksheets and steps for all of the students to follow when working on a project. By using these worksheets it appeared that the students encountered less confusion during the activity.

Unfortunately as the school year went on, noticeable tension arose between the co-teachers. The tension was not noticed by the students because it mainly took place outside of the classroom. At one point one of the teachers began to speak independently with researchers to discuss the troubles he was having getting along with his co-teaching partner. A lack of co-planning was a huge issue. This teacher felt that his co-teaching partner put very little effort towards planning, which resulted in students not only being confused but some lessons were too advanced. This particular teacher felt helpless and out of control in the classroom. The researchers tried to ask questions to hopefully facilitate a resolution to the problem. Unfortunately, the disconnect between the two teachers escalated as the school year progressed. Eventually the two teachers began to split their classrooms into two smaller groups and moved them into separate rooms for a majority of the activities conducted. The only thing the two teachers could come up with to rectify their troubles was to split the class in two (Mastropieri et al, 2005). The vice principal of the schools stated, "Forced marriages often fail...we have speculated that differences in individual teaching style, behavior management, and ideas about class preparation may have influenced the deterioration of the co-teaching" (Mastropiere et al, 2005). The vice principal does have a point, forced marriages rarely work out. Co-teaching could be compared as a type of forced marriage. Co-teaching has a better chance of a positive outcome if the participants already know each other and have similar outlooks. However, if they don't and are able to learn how to work together and

communicate the relationship could be a positive one. In this particular case it appears that there were just too many extreme differences between the two teachers to make this “marriage” work. Their teaching styles were completely different as were their behavior and classroom management. It was concluded that all of these extreme differences were what led to the deterioration of this co-teaching partnership.

The third case that Mastropiere et al (2005) reported was a high school 10th grade world history class. Three different teams of teachers were observed for this case and their experience ranged from 3 years to 20 years. One team was two women and the other two teams were all men. The class sizes ranged from 22 to 25 students, which included 4 to 9 students with disabilities. The special education students had learning disabilities, emotional disabilities and hearing impairments. Mastropiere et al, 2005; all of the teams used the following instructional components in their classrooms:

- A. Presented information to the class as a whole
- B. Reviewed the textbooks, major points or text-based chapter questions with the class as a whole
- C. Assigned work that could be started in class but required outside work for completion
- D. Assigned longer-term project-based activities
- E. Implemented some technology-based graphic organizers

Observations and interviews were used to gather data for the study. The roles that the teams took on were more of a “boss/assistant” type of relationship. The general education teachers were the experts in the subject matter and took the lead role in the classroom, whereas the special education teacher took more of an active role in managing

activities during class as well as collecting and grading assignments. In this study all co-teaching teams appeared positive and happy with their respective roles. The school studied in this case had an increased emphasis on high-stakes testing at the end of the school year. Teachers were given timelines of the content provided by the district and were evaluated on how well they followed those guidelines. All of the teams involved in the study felt the pressure for their students to succeed during the testing. The co-teachers modified what they could for their students. However, it was difficult for the special education teachers to move through the content quickly because they were unable to convey the urgency of quick learning to their students. Not much else was said with regards to the co-teaching success in this study; however, it appears that the teachers did work well together and were able to successfully co-teach, it was a matter of the high-stakes testing that caused the co-teaching model to not be as successful as it could have been without that type of academic pressure on the teachers and students.

Case 4 described by Mastropiere et al, 2005 took place in a high school chemistry class. The participants were four high school chemistry classes that were team taught by two women over a 2 year time span. The special education teacher had over 15 years of experience, whereas the general education teacher was only in her first 2 years of teaching. The class sizes ranged from 22 to 27 students; 5 to 7 of those students had special needs in the areas of learning disabilities, emotional disabilities and autism. Mastropiere et al, 2005; the team used similar instructional components in their classrooms to those used in Case 3:

A. Presented information to the class as a whole

- B. Reviewed the textbooks, major points or text-based chapter questions and lab activities with the class as a whole
- C. Assigned longer-term project-based activities
- D. Tests and quizzes were given on a regular basis

The instructors were observed in the following areas of collaboration methods: distinct working roles and responsibilities, differentiated instruction and emphasis on statewide end-of-year testing, (Mastropiere et al, 2005). The general education teacher took the lead role and presented the lesson, while the special education teacher took on the role of assistant and assignment adapter. It was observed that both teachers were comfortable with their respective roles. Once a lesson was completed both teachers would circulate around the classroom and assist the students with activities or lab work. Peer-teaching was also a part of these classes, which meant that the teachers would occasionally be assisting students in small groups instead of a one on one basis.

Both teachers spoke very highly of one another when interviewed and as time progressed their co-teaching improved. When they were each asked about working together the observers stated, “these teachers acknowledged mutual respect for one another and the unique skills each brought to the class”, (Mastropiere et al, 2005). The differentiated instructions utilized were peer tutoring and lab activities. The peer tutoring was successful for both the general education students as well as the special education students. The students did work well together; however, the content was possibly a bit too challenging for many of the special education students due to the fast paced instruction. Just as in case 3, the study in case 4 also had a huge emphasis on the high-stakes testing. The co-teachers felt an extreme amount of pressure to get through the

content, which played a part as an obstacle for successful co-teaching. These teachers felt such a strong sense to have their students succeed they offered after school and Saturday practice at a slower pace for students that needed the extra help.

Mastropiere et al (2005) examined all 4 cases referenced above in order to come to their conclusions about co-teaching successes, failures and challenges. They concluded that in the area of academic content was not an overall significant factor on whether or not a co-teaching relationship was effective. However, the interaction between course content and teacher knowledge did prove to have a substantial influence on co-teaching. (p. 268). Where high-stakes testing was a factor, the co-teachers appeared to work well together; it was a matter of the content being too difficult for the special education students to understand in such a quick paced learning environment. Co-teacher compatibility is a major factor contributing to the success or failure of the student with disabilities in inclusion classrooms. If the co-teachers are working well together the students are more apt to be successful; however, when there is any type of conflict or tension visible by the students, they tend to have a more difficult time learning the classroom content and being successful. According to Mastropiere et al (2005), co-teaching appeared to be most successful where both teachers practiced effective teaching behaviors, such as structure, clarity, enthusiasm, maximizing student engagement and motivational strategies. They concluded that not only did effective teaching behaviors lead to increased academic achievement, but it also led to a greater degree of effective collaboration between the two co-teachers...overall, many important factors are required to be in place to make co-teaching successful, (p. 269). In their final conclusion they stated that their findings greatly support previous research conducted that specific

variables interact strongly with co-teaching success. Those variables include, co-teacher compatibility, high-stakes testing and academic content knowledge.

Conclusion

After reviewing multiple articles and case studies it is apparent that co-teaching/collaboration does have a positive outcome on students' academic achievement. It is also apparent that co-teaching overall is seen as a positive practice by those that participate in that type of teaching environment. However, in order for co-teaching to have a positive outcome the participants must have a general respect for each other and a willingness to cooperate with one another on a daily basis. The idea of co-teaching still has a long way to go to be successful in all school districts. However, I believe that with further research and continued stories of success that co-teaching will be a standard practice in the future.

Chapter 3

Methodology

Introduction

Participants in this study are being surveyed and observed to determine if professional development in co-teaching can not only improve teaching relationships, but also improve the classroom achievement of 5th grade special education students. The participating students are general education and special education 5th graders. They experience co-teaching in the classroom on a daily basis. The educators participating in the study collaboratively co-teach on a daily basis. The researcher hypothesized that professional development will improve student performance and create a more positive teaching environment.

Participants

The school district where the study was completed is a single district broken down into an elementary school, consisting of pre-k to 4th grade and a middle school consisting of grades 5 to 8. The length of a typical school day is 6 hours and 17 minutes. According to the New Jersey School Performance Report, (New Jersey Department of Education, 2014), the district had a total enrollment of 600 students in the 2013-2014 school year. 314 of those students were male and 286 were female. 24% of the students in the district are classified special education. The district outperforms 73% of the schools statewide in academic achievement and outperforms 68% of the schools statewide in student growth. 97% of the students speak English and 1.3% speaks Spanish. 91.2% of the students are white, 5% Hispanic and 1.8% are Asian.

This study includes eight educators with experience levels from two to thirty five years. All of the educators in the study were teachers of students with and without

disabilities who work in co-teaching classrooms in the middle school subject areas of language arts, social studies, math and science. The participants consisted of 6 white females and 2 white males, ages 26-62.

There were ten middle school students that participated in the study. The students were 5th graders ages 10 and 11. Six of the students were boys and four of the students were girls. Five of the students had disabilities and five of them were without disabilities. The disabilities represented in the study have to do with learning disabilities. The students have been placed in a co-teaching environment because it is the least restrictive environment for their learning. The disabilities represented are attention deficit hyperactivity disorder ADHD, autism and reading disability. The researcher chose mixed methods to examine the impact of professional development on teaching relationships and student achievement.

Instruments

Each of the educators in the study was given a post-test survey. The researcher used a co-teaching survey designed by (Austin, 2001). The survey designed by Austin measured six variables: current co-teaching experience, use of recommended collaborative practices, value of the recommended collaborative practices, value of the school-based supports and use of school-based supports. Both general education teachers and special education teachers were given the survey after professional development training was conducted. The educators received professional development training, which included 1 half day and 3 faculty meeting days. The professional development was a mixture of in-house training and some outside training. The survey included multiple choice and 5 point scale questions, which included: 1 (strongly agree), 2 (agree),

3 (neither agree nor disagree), 4 (disagree), and 5 (strongly disagree). The survey questions were also comprised of a few multiple choice questions, but mainly yes and no responses were required in reference to co-teaching. Interviews were also conducted regarding their views on professional development and co-teaching. The surveys and interview questions were completed after school.

The students chosen for the study were students whom experience co-teaching on a daily basis. The students were administered surveys. The student survey was designed by surveymonkey.com. The survey used multiple choice responses to measure the students' thoughts on the co-teaching environment and observation on the educators during co-teaching. The students were assessed during student lunch study and after school tutoring.

The student's grades were also studied from the beginning of the school year through the middle of the spring semester to determine if the co-teaching environment shows positive outcomes on the student's grades.

Chapter 4

Results

Summary

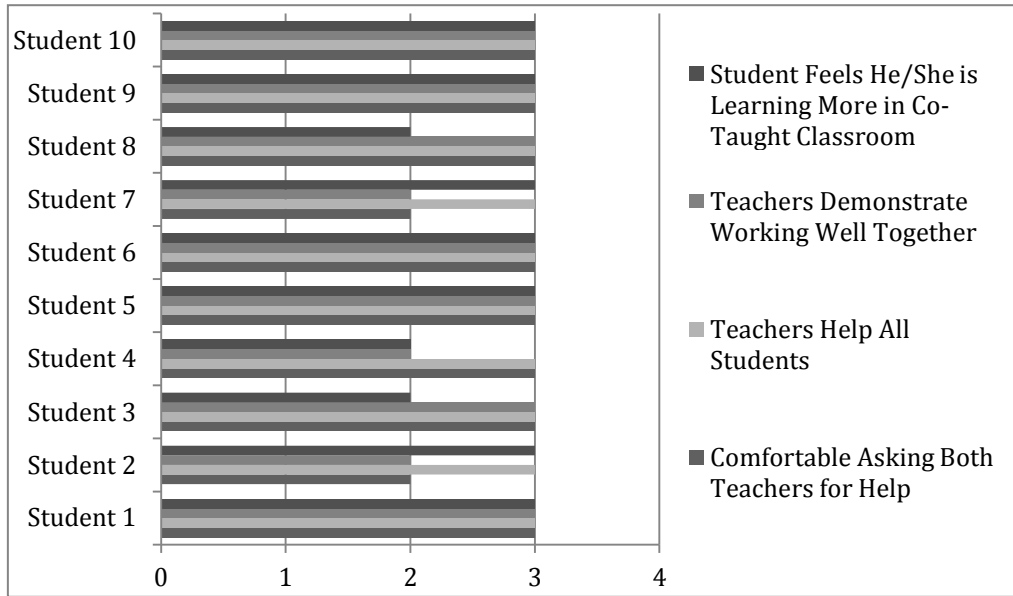
In this mixed methods research study, professional development in co-teaching classrooms was examined to determine if it can, not only improve teaching relationships, but also improve the classroom achievement of 5th grade special education students. Teachers were surveyed and interviewed and students were surveyed for the research. The research question to be answered by this research was: Can professional development in co-teaching improve teaching relationships and classroom achievement of 5th grade special education students?

Results

Table 1 below shows the results of the student surveys. The ten students surveyed for this research each take part in four co-taught classes every day. The subjects studied are Math, Science, Social Studies and Language Arts. The results of the student surveys revealed that all of the students experience a positive co-teaching environment. 60% of the students surveyed indicated that they think they are learning more in a co-taught class. 60% of the students surveyed say that the teachers demonstrate working well together. 100% of the students surveyed say that both teachers help all students. 80% of the students surveyed say they feel comfortable asking both teachers for help.

Table 1

Student Survey Results



Note: 1=Never 2=Sometimes 3=Always

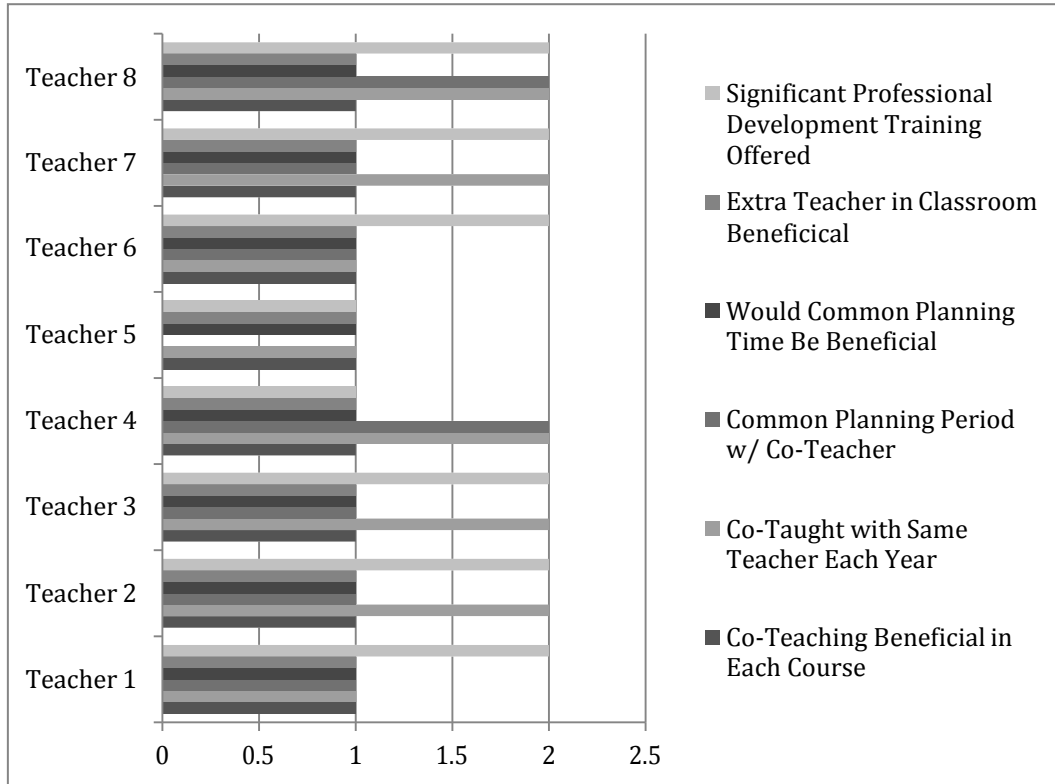
The eight teachers surveyed and interviewed for the research range in age from 20 to 51+ and have 2 to 35 years of teaching experience. Three of the teachers have greater than 10 years of teaching experience, three have between 5 and ten years and two have between 2 and 4 years' experience. Five of the teachers have co-taught for 5 or more years and three of the teachers have co-taught for 3 to 4 years. Six of the teachers have a Bachelor's Degree and two of them have a Master's Degree. Five of the teachers surveyed teach General Education courses and three of the teachers surveyed teach Special Education. Five of the teachers are 5th grade teachers, two of them are 2nd grade teachers and one teaches 5th, 6th, and 7th grade.

During the school year the survey was assessed one of the teachers co-taught with four other educators, three of the teachers co-taught with three other educators, three of

the teachers co-taught with two other educators and one teacher co-taught with one other educator.

Table 2

Teacher Survey Results



Note: 1 = Yes 2 = No

Out of the eight teachers surveyed, 100% said that they think co-teaching with one special educator per course is beneficial. 30% of the teachers have co-taught with the same teacher each year, while 50% of the teachers have not co-taught with the same teacher. 50% of the teachers said they have a common planning period with their co-teacher, 20% say they do not and 10% said that it depends who they are co-teaching with. 100% of the teachers said that they would benefit from common planning for their co-

taught classes. 100% of the teachers also said that they find it beneficial to have an extra teacher in the classroom. 80% of the teachers do not believe there is significant professional development offered on co-teaching, while 20% of the teachers believe that there is significant professional development on co-teaching offered. Teachers were also asked if they felt they had a positive relationship with their co-teacher 80% of them agreed/strongly agreed, 10% strongly disagreed and 10% neither agreed nor disagreed.

The same eight teachers were also interviewed. They were each asked a set of five questions. The first question was, “How does co-teaching benefit students with special needs and general education students?” The responses received were all very similar. Everyone said that the students benefit from learning from different perspectives and personalities. Teachers also said that the students receive more one on one instruction as well as the opportunity to work in small groups to master the subject matter.

The second question asked was, “What do you like about the co-teaching experience?” The teachers all said that they like the ability to bounce ideas off of one another. They like to collaborate with their counterparts and they also believe that the students benefit from this approach.

The third question asked was, “How do you think professional development in co-teaching will help you be successful in the co-teaching classroom?” Seven of the eight teachers responded in a similar manner. They said it would open their eyes to different methodologies and insight. They also said it would help identify each teachers role in the classroom. One of the teachers said that in their 16 years of teaching he/she had not seen a lot offered in that area of professional development.

The fourth question asked was, “How could the school improve on your co-teaching experience?” Four of the teachers said that the school could offer more workshops and in-services on co-teaching. Three of the teachers had similar responses stating that the school could be more consistent with teacher placement from year to year as well as allowing the teachers to stay in one subject area for more than a year in order to foster the co-teacher relationship. It was also mentioned that common planning time would be helpful for each of the co-teachers to plan lessons. One teacher said they would love to observe other co-taught classrooms.

The fifth question asked was, “What do you believe to be the greatest barriers to co-teaching?” The general consensus was that a lack of planning time is a common barrier as well as the inconsistency of teacher placement from year to year. Teachers having different beliefs can be a barrier as well as individuals egos. It was also mentioned that special education teachers often struggle to present themselves as teachers and not an aide. There should be an equal partnership between the general education and special education teacher. One person said that in their experience they have found that co-teaching models have been extremely beneficial for all students in the classroom.

The student’s grades were also studied from the beginning of the school year through the middle of the spring semester to determine if the co-teaching environment shows positive outcomes on the student’s grades. Out of the 10 students, 60% of the students showed a slight increase in their grades, 30% showed a slight decrease in their grades and 10% didn’t have any change to their grades between the first semester and third semester (see figure 1).

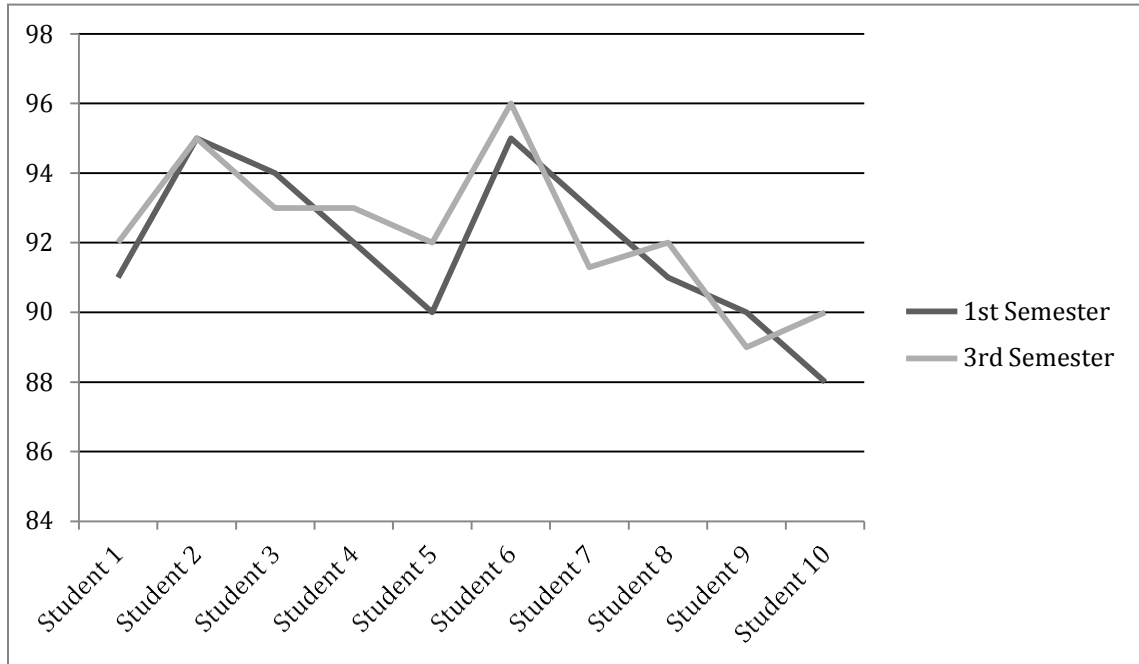


Figure 1. Student Grade Results.

Chapter 5

Discussion

This study examined the effects of professional development in co-teaching to see if it can improve teaching relationships and the classroom achievement of 5th grade students with exceptional learning needs. This study included eight educators with experience levels from two to thirty five years. All of the educators in the study were teachers of students with and without disabilities who worked in co-teaching classrooms in the middle school subject areas of language arts, social studies, math and science. The participants consisted of 6 white females and 2 white males, ages 26-62.

There were ten middle school students that also participated in the study. The students were 5th graders ages 10 and 11. Six of the students were boys and four of the students were girls. Five of the students had disabilities and five of them were without disabilities. The disabilities represented in the study have to do with learning disabilities. The disabilities represented are attention deficit hyperactivity disorder ADHD, autism and reading disability. The students have been placed in a co-teaching environment because it is the least restrictive environment for their learning.

The results of this study showed that 60% of the students showed a slight increase in their grades from the beginning of the school year through the middle of the spring semester. Additionally, in response to a survey, a majority of the students surveyed believe they are learning more in a co-taught classroom. Although the teachers surveyed and interviewed did not feel there is significant professional development offered to them through the school district, they do feel that professional development is beneficial for a positive environment for the students and teachers as well. The teachers all said that they

like the ability to bounce ideas off of one another. They like to collaborate with their counterparts and they also believe that the students benefit from this approach. A study by Austin (2001) concluded that, the inclusion model is gaining wide acceptance in education. Because of this, school districts should be providing teachers more training in the model in order to help prepare them to serve successfully in inclusion classrooms. By ignoring this students and teachers will be missing out on a positive inclusion classroom experience.

An important piece of co-teaching and collaboration is the relationship between the special education teacher and general education teacher. Without an understanding of one another and without compatibility on some level it is likely that a co-teaching relationship could be unsuccessful and not be beneficial to the students. According to Samuels (2015), co-teaching is meant to provide specialized services to students with disabilities in regular classrooms, while ensuring they also get access to the same academic material as their peers. Samuels (2015), reported that in 2003 nearly half of school-age children with disabilities spent most of their time in general education classrooms and by 2013 that number had risen to 61 percent.

Comparing the results of this study to prior studies conducted, it is apparent that overall co-teaching is viewed as a positive classroom tool for both general education and special education teachers and students. There are also similarities among prior research conducted that educators believe they need time to collaborate with one another. Educators also believe that there needs to be mutual respect for one another in order for there to be a positive environment in the classroom. Out of the research conducted

overall students had a positive experience in a co-taught classroom as well as increased academic achievement.

The following are examples of prior studies conducted with similar outcomes to this study. A study conducted by Austin (2001) concluded that among the teachers interviewed they believed that co-teaching had a positive outcome not only on their students' academic development but also on their social development. One negative outcome of the study showed that some of the special education students had observed poor behavior by the general education students and then began to copy of those bad behaviors. Another negative outcome was that some of the special education students can be disruptive in the classroom, thus deterring the other students from learning. The Austin (2001) study also stated that, the inclusion model is gaining wide acceptance in education. Because of this, school districts should be providing teachers more training in the model in order to help prepare them to serve successfully in inclusion classrooms. By ignoring this students and teachers will be missing out on a positive inclusion classroom experience. The Austin study had a similar outcome to this study conducted; teachers interviewed in both studies believed that co-teaching had a positive outcome on academic and social development with the students. The difference is that Austin's study observed disruption by the special education students in the classroom. The study conducted did not experience any disruption by the special education students.

Samuels (2015) described several co-teaching situations. For example, he recounted the experience of a special education teacher in Wyckoff, NJ who had a hectic schedule that left her feeling like an aide instead of a teacher. After creating a better schedule with her colleagues at the suggestion of her administration she now spends the

entire day in one classroom. Occasionally she does the entire group lesson and sometimes the general education teacher does the entire lesson. On occasion she will take a small group of general and special education students to teach a lesson, (Samuels, 2015). Another teacher in Connecticut said that in her experience both teachers push each other to be at their best for the students. She believes that without the proper resources and instruction, teachers will get burnt out on inclusion classrooms if they aren't working with their co-teacher in a productive manner. Similarities to Samuels study and this study is that co-teachers need to work together to make co-teaching productive. Communication is key in co-teaching.

Sileo (2011) states that co-teachers need time to have a development phase of their co-teaching relationship just as those do when beginning to date someone. By skipping the developmental phase it could lead to misunderstandings and communications problems, which ultimately causes a negative effect on the students. Teachers need time to develop a strong relationship before being thrown together in a co-teaching classroom. If the children sense tension or miscommunication they themselves could become confused and frustrated and not know which teacher they should be asking for help. As in any type of relationship, in order for it to be successful communication must be effective. "Co-teachers believe personal compatibility is the most important factor for co-teaching success", (Scruggs et al 2007). Scruggs study revealed that teachers observed that compatibility is key in successful co-teaching. Teachers interviewed in this study also indicated that communication and personality compatibility helped make co-teaching successful.

Hang and Rabren (2009) concluded that co-teaching practices were in fact being implemented in the classrooms that were observed. The academic performance of students improved the year that co-teaching was introduced as compared with the increase rate of all students; however there was not a significant difference. This study also revealed a slight improvement in academic achievement.

According to Mastropiere et al (2005), co-teaching appeared to be most successful where both teachers practiced effective teaching behaviors, such as structure, clarity, enthusiasm, maximizing student engagement and motivational strategies. They concluded that not only did effective teaching behaviors lead to increased academic achievement, but it also led to a greater degree of effective collaboration between the two co-teachers...overall, many important factors are required to be in place to make co-teaching successful, (p. 269). This study also revealed that effective co-teaching lead to academic achievement and greater respect for their counterparts.

Limitations and Future Studies

During the study, a small group of educators and students were examined. A larger group of educators and students should be examined in order to determine more accurate results. Students were not interviewed; however, in future studies it could be helpful to have students interviewed as well as surveyed. Students seemed to take the surveys seriously, but with young children it can be difficult to determine if they understand the importance of providing honest responses to survey questions. This study was conducted from the beginning of the school year to the spring semester. In future studies the students' academic achievements should be monitored over a longer period of time in order to more accurately determine the effects of positive co-teaching.

Practical Implications

In the current study, the educators discovered the need for more professional development courses in order to be more successful in the co-teaching classroom. Educators also realized that the more time they have to collaborate with one another, the more positive experience they can provide to the students. Students received instruction from two educators instead of one, which means they receive double the attention than students who are not taught in a co-teaching environment. Co-teaching professional development would open their eyes to different methodologies and insight. In order to improve the co-teaching experience, teachers said that the school could offer more workshops and in-services on co-teaching.

Conclusion

This study sought out to answer the following question: Can professional development in co-teaching improve teaching relationships and classroom achievement of 5th grade special education students? The data illustrated that educators with co-teaching experience indicate that an extra teacher in the classroom is beneficial to the students and the other teacher. Having a common planning time between co-teachers would be beneficial, although only a few of the educators surveyed actually have a common planning time.

The educators reported that the greatest barriers to co-teaching were a lack of planning time as well as the inconsistency of teacher placement from year to year. Teachers having different beliefs can be a barrier as well as individuals egos. Special education teachers often struggle to present themselves as teachers and not an aide.

All of the teachers in the current study said that the students benefit when learning from different perspectives and personalities. Teachers said students receive more one on one instruction as well as the opportunity to work in small groups to master the subject matter in a co-taught classroom. The teachers like the ability to bounce ideas off of one another as well as collaborating with their counterparts.

The student's grades were studied from the beginning of the school year through the middle of the spring semester to determine if the co-teaching environment showed positive outcomes on their grades. A majority of the students showed a slight increase in their grades between the first semester and third semester.

After reviewing multiple articles and case studies as well as conducting this study, it is apparent that co-teaching/collaboration does have a positive outcome on students' academic achievement. It is also apparent that overall co-teaching is seen as a positive practice by those that participate in that type of teaching environment. In order for co-teaching to have a positive outcome the participants must have a general respect for each other and a willingness to cooperate with one another on a daily basis. The idea of co-teaching still has a long way to go to be successful in all school districts. However, with further research and continued stories of success it is highly likely that co-teaching will be a standard practice in the future.

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Appendix A

Student Survey Questions

Please circle your answers

1. I feel comfortable asking both teachers for help.
 - Never
 - Sometimes
 - Always

2. Do both teachers help all students?
 - Never
 - Sometimes
 - Always

3. Do the teachers demonstrate working well together?
 - Never
 - Sometimes
 - Always

4. How many co-teaching classes do you have?
 - 1
 - 2
 - 3
 - 4

5. What subjects are taught in your co-teaching classes?
 - Math
 - Science
 - Social Studies
 - Language Arts

6. Do you think you are learning more in a co-teaching class?
 - Always
 - Sometimes
 - Never

Appendix B

Teacher Survey Questions

I am inviting you to participate in a research survey entitled “Co-Teaching and Classroom Success.” I am inviting you because you are a teacher who is or may be participating in a co-teaching classroom. In order to participate in this survey, you must be 18 years or older.

The survey may take approximately ten minutes to complete. Your participation is voluntary. If you do not wish to participate in this survey, do not respond to this paper survey. The number of subjects to be enrolled in the study will be ten.

The purpose of this research study is to determine whether successful professional development will lead to successful co-teaching/collaboration and therefore, lead to the academic success of the special education students being taught in the co-teaching/inclusive environment. Completing this survey indicates that you are voluntarily giving consent to participate in the survey.

There are no risks or discomforts associated with this survey. There may be no direct benefit to you; however, by participating in this study, you may help us understand how training in co-teaching can improve the academic performance of students with disabilities.

Your response will be kept confidential. We will store the data in a secure computer file and the file will be destroyed once the data has been published. Any part of the research that is published as part of this study will not include your individual information. If you have any questions about the survey, you can contact Wade Chilmonik at 610-730-1182.

Please circle your answers to the questions below

1. How many years have you been teaching?
 - Less than 1 year
 - 2 to 4 years
 - 5 to 10 years
 - Greater than 10 years

2. How many years have you co-taught?
 - 1 to 2
 - 3 to 4
 - 5 or more

3. How many co-teachers are you teaching with this year?
 - 1
 - 2
 - 3
 - 4

Appendix B (Continued)

4. What is your education level?
 - Bachelor's Degree
 - Master's Degree
 - Doctoral Degree
 - Other (if other, please explain)

5. What do you teach?
 - General Education
 - Special Education

6. What grade(s) do you teach? Choose all that apply.
 - Grade 3
 - Grade 4
 - Grade 5
 - Grade 6
 - Grade 7

7. How old are you?
 - 20-30
 - 31-40
 - 41-50
 - 51+

8. Do you think co-teaching with one special educator per course to be beneficial?
 - Yes
 - No

9. Have you co-taught with the same teacher each year?
 - Yes
 - No

10. I feel I have a positive relationship with my co-teacher.
 - Strongly Disagree
 - Disagree
 - Neither Agree nor Disagree
 - Agree
 - Strongly Agree

Appendix B (Continued)

11. Do you and your co-teacher have a common planning period?
 - Yes
 - No

12. Would a common planning time be beneficial to co-taught classes at Holland Township School?
 - Yes
 - No

13. Do you find it beneficial to have an extra teacher in the classroom?
 - Yes
 - No

14. Do you believe there is significant professional development training offered in order for you to succeed in a co-teaching environment?
 - Yes
 - No

Appendix C

Teacher Interview Questions

1. How does co-teaching benefit students with special needs and general education students?
2. What do you like about the co-teaching experience?
3. How do you think professional development in co-teaching will help you be successful in the co-teaching classroom?
4. How could the school improve on your co-teaching experience?
5. What do you believe to be the greatest barriers to co-teaching?