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CRITICAL ELEMENTS OF EFFECTIVE CO-TEACHING IN THE K-12 CLASSROOM

A MASTER'S THESIS

SUBMITTED TO THE FACULTY

OF BETHEL UNIVERSITY

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JULIE GAFFNEY

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CRITICAL ELEMENTS OF EFFECTIVE CO-TEACHING IN THE K-12 CLASSROOM

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APPROVED

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Abstract

Co-teaching is a common and significant practice that pairs a special education teacher with a general education teacher for the purpose of enhancing the education of all students. In addition to giving students with special needs access to the content of general education classes, all students get the social benefits of being closer to their peers. Since the introduction of the Individuals with Disabilities Act (IDEA) (1997), methods of inclusion for special education students have taken center stage. Teachers and administrators are experiencing the benefits and challenges of this relatively new but successful concept. Research is plentiful but there is a plethora of research information to consolidate, compare and document for the benefit of co-teachers and administrators. The critical elements for effective K-12 co-teaching expressed by the research reviewed in this thesis include: effective collaboration, administrative support of the co-teaching program, strategic implementation of a co-teaching strategy, shared planning opportunities between the teaching partners and professional training for both teachers and administrators.

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CHAPTER I: INTRODUCTION

Meeting the needs of special education students is evolving from "pull out" servicing to inclusive classrooms that often have two teachers. General education teachers that are content specialists and special education teachers that are proponents of scaffolding and accommodations, are sharing classrooms and students. Today's world of special and general education calls for new methods, outside of the box thinking and teaching methods tailored to student needs in infinite ways. With the introduction of The Individuals with Disabilities Act (IDEA) (1997), placing students with disabilities in the least restrictive environment (LRE) has taken center stage. LRE means keeping students with disabilities in the general education setting whenever possible. The official definition of LRE is:

To the maximum extent appropriate, children with disabilities, including children in public or private institutions or other care facilities, are educated with children who are not disabled, and special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily. [IDEA Section 612 (a)(5)(A)]

As teachers struggled to interpret what this looks like in the classroom, coteaching evolved and many teachers jumped in, or were pushed in, with both feet. Loosely defined, co-teaching means two teachers, usually a general educator and a special educator, share the same physical space and classroom responsibilities. What this should mean for the students is more individual or small group assistance, better monitoring of learning, flexibility in how lessons are presented and most importantly, more time for disabled students in the general education classroom of their peers. In reality, for the teachers, it means a new way of thinking, giving up total control of the classroom and finding the time to effectively communicate and collaborate with their co-teacher (Keefe & Moore, 2004). Each facet of co-teaching can be interpreted differently depending on the teachers, their relationship with each other and their desire to enter into unchartered territory. Despite the positive thinking surrounding coteaching, there are still many unanswered questions and many teachers are reinventing the wheel of co-teaching strategies. Co-teaching is especially challenging but also rewarding at the secondary level. Large class sizes, teachers with high demands on their time, difficulty carrying on effective communication, personality clashes, high level content; the list of challenges is seemingly endless (Isherwood & Barger-Anderson, 2008; Weiss & Lloyd, 2002).

Currently I am in a co-teaching partnership at Forest Lake High School. I am a second-year teacher and open to new methods and ideas. My current co-teacher and I were given the assignment together without input. They hired me into this position and sent me to Algebra class two hours a day to co-teach 73 active secondary students. Luckily my co-teacher and I are compatible and we are making progress with our students without conflict but we both have unanswered questions. I believe that we are not the only ones entering co-teaching without a lot of preparation or research into methods or strategies. Given every teacher's need for more time, my guiding question is: what are the critical elements of effective co-teaching in the k-12 classroom? Knowing the vast differences among teachers, bringing to light the perspectives and experiences of teachers and students, has the potential to be beneficial for many administrators and co-teaching partnerships. According to Keefe and Moore (2004), "There is no one way to do inclusion, and it must be remembered that schools and classrooms are very complex systems. However, there are lessons to be learned from the voices of these teachers that may help us, and other high schools meet the needs of all their students through collaboration between general and special educators" (p. 87).

Why Co-Teaching?

Cook and Friend (1996) as cited by Zigmond (2005), described the benefits of coteaching as a wider range of instructional options. They suggested that co-teaching reduces the stigma for students with disabilities by placing them in the general education classroom. Co-teachers may also provide professional support for one another because, ideally, co-teachers collaborate in all facets of the educational process. Content knowledge of the general educator and classroom management plus curriculum adaptation skills of the special educator, and the power of two in the classroom, help more students reach their educational goals.

By simply placing a second teacher in the classroom, the student-teacher ratio improvement is significant. Differing teaching styles, different approaches and differing teacher personalities translate to choices for the students. This is not a one-size-fits-all approach to teaching. Scaffolding and curriculum adaptations make the content more reachable and, hopefully, the school experience a positive one. Dieker (2009) observed benefits that are showing up in co-taught classrooms, which demonstrate significant benefits for all students. Teacher partnerships are creating positive learning environments, instruction that is focused on active learning, setting and maintaining high expectations plus finding creative ways to evaluate student progress. Teachers are painstakingly allocating time to plan for the co-teaching process, sharing ideas and expertise. The research is laden with teacher perspectives of both the benefits and challenges of co-teaching but nowhere does it say this practice is ineffective. Challenges are related as bumps in the road, not roadblocks.

Admittedly the ultimate test of effectiveness of co-teaching lies with the student's experience in the co-taught environment. Ironically, the research is not laden with student perspectives nor even academic data showing huge strides in knowledge. But, the student perspectives that are documented are positive and encouraging for the future of co-teaching. General education students admitted to learning more about their disabled peers (Dieker, 2009). Many students admit that they do not even know why the second teacher is in the classroom but they like having two teachers. Some students also admitted to not knowing that the second teacher was a special education teacher (Dieker, 2009).

While co-teaching is making great strides with positive impacts plus it has earned the praises of teachers in many walks of life, there is more research needed to perfect and define effective practices. Venn (2009) says "the day of large numbers of segregated education classrooms for students with disabilities appears to be at an end; however, much information is needed to implement an alternative with positive results for all students" (p. 22).

The Role of Administrators

It is not just teachers and students that play a role in the effectiveness of inclusive practices, including co-teaching. Administrators are key to the success of implementing and supporting the practice of successfully integrating special education students in the general education setting. Isherwood et al. (2008) found that leaders need to voice a vison for the co-teaching paradigm shift. While it is important for teachers to play a part in the planning and preparation of a co-teaching strategy, success involves more than just the teachers. There is a need for administrative support and validation through communication and classroom visits. Observing the effectiveness of the teacher partnership and showing support for the unique role they play is important.

Lack of mutual planning time, personality conflicts, and differences in teaching styles may require some input and conflict resolution skills from the administrators. Sometimes the decision on who-teaches-with-who is based on schedules and availability, not complementary teaching styles and compatible personalities. Teachers report that sometimes their partnership was initiated by a mandate from administrators to use the co-teaching strategy. This type of beginning reflects a lack of involvement and support. It is an unfortunate and difficult situation for success. Collaboration is very important and administrators that are not involved nor understand the process may very well cut short the time available for teachers to collaborate. Collaboration is a key element for information and experience sharing among teachers. Nlerengarten et al. (2010) said "Administrators need to create meaningful incentives for people to take the risk to embark on a co-teaching journey and plan for and take actions designed to get school personnel excited about implementing co-teaching approaches" (p. 75).

Definition of Terms

Inclusion is a general term for classrooms that include special education or disabled students in a classroom with their general education peers. It does not represent special education students that are educated by pull out services or in small groups of only special education students. Co-Teaching is a method of supporting special education students in the general education classroom. It involves two teachers sharing the same classroom. The most common roles of a co-teacher include a general education teacher that supplies the content knowledge and a special education teacher for classroom management and curriculum modification. Partnership teachers are two teachers that have a co-teaching arrangement with each other and share a classroom of students on a regular basis.

When referring to administrators in the context of this thesis it implies school district superintendents, principals, assistant principals and anyone involved in directing the programs supported by the schools. The term "student" implies all children attending a school including disabled students, special education students, and general education students. Special education or disabled student describes those that have an Individual Education Plan (IEP) to support their educational success. Special education students may spend all or a portion of their school day in special education classrooms. General education students are students that do not have an IEP and spend all their classroom time in the general education setting.

The Value of Research on Co-teaching

The busy world of a teacher does not always leave time for reading, collaborating, seeking information outside the classroom, professional development and experience sharing. Many days the four walls of the classroom confine us to a routine that puts students' needs first and time for the teacher to reflect and learn is limited or non-existent. Feeding teachers consolidated information is the realistic way for teachers to gain knowledge. Co-teaching is a new strategy where teachers are developing concepts, testing ideas and learning from their student's success, or lack thereof, every day. Efficient information sharing on this valuable topic can make a big difference for teachers and their students. This thesis will provide insight for co-teachers that are looking for answers, new ideas, motivation and success stories. The question that this thesis will answer is "What are the critical elements of effective co-teaching in the K-12 classroom?"

CHAPTER II: LITERATURE REVIEW

Literature Search Procedures

Chapter two reviews the published literature on co-teaching. It will examine the benefits and challenges of this method of inclusion based on observations, surveys and interviews conducted by the researchers and authors. The studies reviewed indicated several important elements including implementation of co-teaching programs and the ultimate support of those programs by administration and staff. To thoroughly answer the question regarding critical elements of effective co-teaching, perspectives of administrators, teachers and students are shared in this chapter. To locate the literature for this thesis, searches of Educator's Reference Complete, ERIC, Academic Search Premier, and EBSCO MegaFILE were conducted for publications from 1998-2017. This list was narrowed by only reviewing published empirical studies from peer-reviewed journals that focused on co-teaching, collaboration, and inclusion in secondary, elementary and special education. The key words that were used in these searches included "co-teaching," "inclusion," "collaboration," "team teaching," "least restrictive environment" and "inclusion". The structure of this chapter is to review the literature on co-teaching in four sections in this order: benefits, challenges, implementation and support, and perspectives.

Benefits of Co-Teaching

Benefits of co-teaching were expressed in every study to varying degrees. Teachers and administrators expressed some differing views of benefits as well as challenges, implementation strategies and effective methods of supporting a coteaching initiative. Benefits noted by students are also important, but student perspectives were not as abundantly documented in the literature. Both Austin, 2001 and Whinnery and King (1995) indicated that student perceptions of their learning environment are often overlooked when investigating the viability and effectiveness of programs (as cited in Wood, 2017). The lack of student input was often noted as a limitation but also an area needing further research. Wilson and Michaels (2006) specifically studied student perceptions in co-teaching classrooms and reported that general and special education students had positive perceptions that should encourage general and special educators to listen carefully to their students. Hang and Rabren (2009) examined co-teaching by observing and interviewing teachers and students with disabilities but did not include general education students.

Benefits Expressed by Teachers and Students

Benefits expressed by both teachers and students are many and serve as a reminder why co-teaching is a popular option for inclusion. The following benefits are from those that were surveyed or interviewed for research studies. Benefits from students are limited simply because interviews or surveys of students was minimal within the realm of the research reviewed.

Positive learning climate. Development of a positive learning climate was a benefit expressed by Dieker (2009) and supported by several other researchers. This is considered a critical element of inclusion. "Perhaps the fact that all the teams observed chose to co-teach leads to a positive climate between the teachers, and that also many have affected how they embraced their students" (Dieker, 2009, p. 12) Another factor

that developed a positive learning climate was natural peer supports such as peer tutoring or cooperative learning. In addition, positive outcomes for teacher professional growth as well as student growth were praised by teachers. Daniel and King (1997), observed that students in inclusion settings could benefit from an environment where improving self-esteem is promoted among class members. They also noted that consistent academic gains do not appear to be an advantage of students' participation in the co-taught, inclusion classroom. This promotes the positive climate by placing less emphasis on grades and more on the learning process. A positive climate was not only expressed by teachers but also students. Dieker (2009) reported that when non-disabled students were interviewed, they named students with disabilities as their friends or as students whom they appreciated being a part of their group. In Dieker's study most of the students did not know why there were two teachers in the room, but they did express that the higher level of academic support created a positive environment.

Student behavior improvement. Hang and Rabren (2009), identified a phenomenon surrounding behaviors in the co-taught classroom versus the resource room. Teachers and administrators perceived that students' behavior improved in co-taught classrooms because many of their peers were positive role models. Woods (2017) reports perceptions of improved behavior because there is an additional adult to intervene as needed. Woods (2017) also stated that the ultimate goal of co-teaching is to increase the academic and social growth of all students. Increased communication between students and teachers, more students making connections with teachers and ultimately, building relationships, also leads to improved engagement.

Dieker (2009) also alluded to student behavior as a measure of the effectiveness of co-teaching. 90% all educators surveyed believed that they were primarily responsible for monitoring student behavior. All participants in Dieker's study showed agreement with statements that students with disabilities increased their selfconfidence, learned more, had sufficient support and exhibited better behaviors in cotaught classrooms. Special educators also believed that students with disabilities received sufficient support, but general educators had more doubts regarding appropriate levels of support. This difference in perception led the researchers to believe that the special educators were the primary support and therefore felt more confident regarding the levels of student support.

Daniel and King (1997) conducted a research study that focused on the impact of inclusive practices on student achievement, behavior, self-esteem and parental attitudes. They reported a significant difference in performance between non-inclusion students and random inclusion students. More behavior problems were reported in inclusion classrooms along with lower levels of perceived self-esteem for all students, not just students with special needs. The difficulty of instructing students with differing ability levels may also result in student boredom and/or frustration that may lead to an increase of inappropriate student behaviors. The researchers concluded that students in inclusion settings could benefit from an environment where enhanced self-esteem is promoted. Suggestions for improvement focused on the importance of educators to view students in positive ways and maintain favorable expectations of them.

Higher Expectations. High expectations for all students are another benefit for co-taught classrooms. In the study by Wilson and Michaels (2006), 127 secondary special education students representing 17 middle and high schools were surveyed. These special education students were passing their general education classes with an average of 74% across all content areas. This suggests that "inclusive practices such as co-teaching that focus on high levels of academic achievement while providing individualized and intensive levels of support may justify our optimism" (p. 221). These students also believed that their skills improved in the general education classrooms. These positive perceptions could also lead to improved willingness and motivation to tackle difficult academic tasks. Dieker (2009) reported that general and special educators perceived that students improved their academic performance during their co-taught year. In contrast, Daniel and King (1997) determined that consistent academic gains were not an advantage of students' participation in an inclusion classroom. They noted gains in reading scores but no noteworthy improvements for mathematics, language and spelling.

Wasburn-Moses (2005) observed that "not only is the field of special education affected by the trend to co-teach as method of inclusion, but we are now faced with the pressures of a system that emphasizes student outcomes" (p. 156). Higher expectations not only for students but for teacher performance.

Reduced student to teacher ratio. Austin (2001) interviewed and surveyed 139 collaborative teachers from nine different school districts in Northern New Jersey. These were also districts where the inclusion model that utilized co-teaching was well

established. Most co-teachers interviewed expressed a belief that the collaborative teaching strategies they were using were effective in educating all their students and gave the most credit to the reduced student-to-teacher ratio as the principle benefit. This included gaining the expertise and insight from more than one teacher. Not only did academics gain popularity but these teachers also believe the inclusive classroom was socially beneficial for students with and without disabilities. A tolerance for differences emerged along with a general sense of acceptance. Also, once again, they discussed the benefit of having general education peer models for those students with disabilities. Ironically, they also stated the adverse effect noting general education students that would mimic or model the poor social behaviors of their special education counterparts. There is dismay and concern for the potentially disruptive nature for some students with disabilities. Overall, these teachers still believed the students were very receptive to co-teaching and noticed a high degree of tolerance for differences, student participation and evidence of increased cooperation with teachers. Zigmond (2005), reiterated the immediate and positive effect of reducing the student-teacher ratio through the physical presence of two teachers in the classroom. Zigmond (2005) also found that co-teaching reduces the stigma for students with disabilities by placing them in the general education classrooms.

Professional growth. Positive professional growth was noted as a benefit of coteaching for the teachers themselves. Special Education teachers have noted an increase in content knowledge and general education teachers have reaped the benefits of improving their skill in classroom management and curriculum adaptation. The caveat on professional development is dependent on compatibility between the two coteachers (Scruggs, Mastropieri, & McDuffie, 2007).

Nierengarten (2013) discussed twenty research-based practices to support coteachers. Their twenty practices included many suggestions for professional growth. The first practice listed is training administrators to be sure they understand what the teachers do. Nierengarten also recommended professional training for teachers before they co-teach including instructional practices, responsibilities, define roles, time management, data collection and evaluating student outcomes. Administrators observing co-teaching teams and providing feedback, peer coaching, allow time for teacher reflection and provide for continued professional development were also highly recommended research-based practices that support professional growth among coteachers.

Methods that benefit all students. Teachers also expressed that the collaborative methods they were using as co-teachers benefitted all their students. Reduced student to teacher ratio was the principle benefit to students (Austin, 2001). The ability to reach twice as many students and possibly engage in one-to-one assistance benefits everyone. Austin (2001) also indicates that it is a benefit to each coteacher to have another teacher's expertise and point of view. Cook and Friend (1996) as cited by Zigmond (2005) suggested that co-teachers provide all students with a wider range of instructional opportunities and reduces the stigma for students with disabilities by placing them in the general education classrooms. Co-teachers may also provide professional support for one another when they collaborate in all facets of the educational process.

Supporting and sharing experiences with each other is a luxury enjoyed more often by teachers working close together in a shared setting and enhances professional growth. These teachers also reveled in the fact that teaching all students together was an opportunity for non-disabled students to gain some understanding of the challenges and difficulties experienced by those with disabilities (Austin, 2001). Promoting a tolerance for differences and improving a sense of acceptance among all students is a social benefit and life lesson for all students plus a learning opportunity for teachers.

Opportunities for students and teachers. The opportunity for disabled students to participate and engage in the general education curriculum is a benefit and the main reason for co-teaching. Flexibility in the approach, review and assessment of concepts is important and increases the depth of learning for each student (Jewell, 2014). A more diverse perspective, changing the tone of the classroom as each teacher brings out their own insight to a lesson and keeping the classroom more active and alive increase the effectiveness of the lesson in a co-taught environment (Jewell, 2014). According to Jewell, all students benefit. If students have difficulty understanding one teacher's method, the other teacher may be able to explain in a different way.

It was also noted that teachers learn from each other during co-planning and by co-instructing. Dieker (2009) reported valuable learning by special educators at the same time as the students learned the content. Brendle, Lock and Piazza, (2017) emphasized the learning of grade level content from joint lesson planning. While a teacher's daytime world can often be somewhat isolated while lesson planning, coteachers get the benefit of sharing ideas and working together. Often teachers use the support of each other to venture into uncharted territory and try new ideas. It's a winwin. Gavin (2009) introduced a concept for collaboration that encourages teachers to use their librarian/media specialist resource. They are a resource for current ideas and evolving technology. Upgrading and reviewing curriculum to be sure the newest technology is applied is important.

While the benefits of co-teaching are many for both students with and without disabilities, the results of co-teacher interviews by Austin, 2001, emulate some important and uplifting findings of prior studies. As cited by Austin, Pugach and Wesson (1995); Whinnery, King, Evans, and Gable (1995), all report that co-teachers are encouraged by student participation, acceptance of differences and cooperation among teachers in a co-teaching environment. Because these teachers discovered that students are positive and likely to benefit from a collaborative teaching model, the teachers are inspired to continue co-teaching due to the enthusiasm of their students.

Challenges of Co-Teaching Partnerships

Benefits of any teaching strategy come with their share of challenges; as does co-teaching. Challenges that range from content knowledge to behaviors and roles of teachers are all important. Solutions need to be addressed in training and by sharing experiences among teachers. The goal of co-teaching is to bring together the content knowledge of the general education teacher with the scaffolding and accommodation skills of the special educator. Keeping the best interest of the student at the forefront, carrying out the intent of the IEP goals and teaching grade level content at different levels is not easy but it is rewarding.

In a study by Weiss (2002), six middle and high school teachers that were currently co-teaching classes in the mid-Atlantic region were observed, interviewed and required to keep journals. The results of this study revealed several challenges including lack of confidence in the course content for the special educator. This led to the general educator taking on the role of sole instructor, giving all the lessons by himself, leaving the special educator the role of providing support and not participating in instruction. The content teacher gave feedback about student responses to questions while the special educator gave feedback by reinforcing behavior, compliance or participation during instruction. In comparison to the special education classroom where special educators were able to correct students or compliment students for performance and participate in content reinforcement or direct feedback on progress. Dieker (2009) reported that special educators often did not know where the lesson was headed. A challenge that was less apparent when teams had common planning time. While these special educators are focusing on individual students' needs as dictated by their IEPs, they also are trying to become secondary level content specialists. These special educators were often observed gaining knowledge on the content at the same time as the students gained knowledge. This has some positives, such as modeling lifelong learning, but also limited the ability to accommodate student needs.

Gaps in Student Skill Levels

Also, in the Weiss (2002) study, teachers reported gaps in skill levels between students with and without disabilities in the general education classroom. These gaps existed in both academic and behavioral challenges causing three of the teachers to split classrooms into smaller groups for instruction thus eliminating the express co-teaching benefits of interactions with general education peers and teachers. It also interfered with high rates of students responding and direct skill instruction which are benefits that administrators and teachers are seeking with a co-teaching environment. Another school in this study had to split special educators between classes within the same period which means they were only present for half of each class. The results were little to no time for special educators to deliver, modify or specialize instruction within the general education classrooms. This left a need for teachers to execute these supports in the special education setting during a time scheduled for another subject. Again, bypassing the benefit of additional time in the general education setting. All the educators in this study identified the general educator as the content specialist and they all used significant time to take on the role of the aide in the classroom and, once again, removing them from the role of delivering or modifying instruction to improve the experience of their special education students. Due to many of these challenges, two of the instructors in this study believed they had more flexibility in instruction in the special education classroom and were also able to better assess student progress.

Daniel and King (1997) reported on the difficulty of directing instruction to students of differing ability levels and its effect on student behavior. While trying to

simultaneously direct instruction to students at different levels, some students became bored or frustrated which led to inappropriate and disruptive behaviors. This contributed to teachers indicating a higher level of perceived misconduct in their cotaught classroom.

Social Integration

Reservations expressed by Austin (2001) regarding inclusion of students with disabilities in the general education setting solely for the purpose of social integration when these students are not capable of achieving the academic goals only serves to emphasis their differences and possibly contribute to a student's sense of alienation. While alienation is not something commonly expressed in these studies by students, it is a concept that educators are hoping to alleviate by using inclusive teaching methods. Nierengarten et al., (2010) noted that the greatest success seen in students in their study were social and classroom behaviors. Students previously unengaged began participating in class and others decreased their disruptive behavior in general while in the general education classroom. This study also noted the improvement of the general education teacher's behavior management skills mostly by collaborating with the special education teacher and observing their methods in the classroom. Austin's (2001) study also highlighted a concern among the participating co-teachers that had observed students without disabilities emulating undesirable behaviors of some students with disabilities. Experienced co-teaching partners in Austin's (2001) study also expressed difficulties with disruptive effects in the classroom of some students with disabilities.

The concern for all students, those with and without IEPs, is the hinderance of work completion because of a noisy and distracting environment in the classroom.

Higher Level Content

The difficulty of class content at the secondary level is also a challenge for coteaching partners. Even though IDEA emphasizes the general education as a starting point for all students, Dieker (2009) noted that special educators at the secondary level cannot be expected to be masters of all content areas, and that is why collaboration with general education is essential. Collaboration skills are noted as an important aspect of professional development not only for co-teachers but for all teachers. Co-teaching team planning is noted in several studies as a very important aspect of effective inclusion strategies (Dieker, 2001; Weiss, Pellegrina, Regan, & Mann, 2014; Niernengarten, 2010).

The advantage of special and general educators in one classroom belongs to the content knowledge of the general educator and the ability of the special educator to scaffold, re-teach or modify the curriculum coming together for an educational setting very favorable to student learning (Hang & Rabren 2009). Special educators at the secondary level cannot be expected to be masters of all content areas which emphasizes the importance of collaboration with general education (Dieker, 2001). Co-teaching provides the best venue for combining the complementary skills of both gen ed and special education teachers (Jewell, 2014).

Joint Planning Time and Collaboration

Lack of time, lack of desire or perceived need and lack of professional training were all noted as barriers to effective collaboration. Tzinikou, (2015) noted that collaboration of special and general education teachers is a very important pillar of effective teaching for all students. Tzinikou also found that participating co-teachers in his study changed their attitudes and showed a greater willingness to adopt suggestions and new knowledge when they developed cooperative procedures and high-quality collaboration skills. It is unfortunate that time for collaboration between teachers is often challenging and sometimes nonexistent. Daily communication before teaching begins is important and difficult to keep up with according to Dieker (2009). Keeping the sanctity of team planning time was a major concern of many co-teaching partners. Four of the teams observed in Dieker's study had daily planning time scheduled but admitted to many other factors that often interrupted this time.

Kamens (2009) study illustrated the critical and challenging role that personality plays in the effectiveness of collaboration and joint planning. Often the pairing of a coteaching team is almost random. Who is available and has the skills needed are often the only parameters for the pairing of teachers. According to Kamens (2009) The impact of differing personalities - paired up randomly, not by choice interfered with planning. Often teachers start planning alone then developed effective shared planning. On both teams in the Kamens' study, the student teachers had to get to know one another and negotiate the classroom as they encountered differences in the other teacher's style and perspective. One of the two teams took time to get to know each other and build their relationship. This team had a different start because when one was teaching the other was able to jump in and share. Personality conflict in this study encouraged reflection and introspection about the impact of personality and the benefits of conflict resolution.

Establishing a co-teaching partnership has been researched from many different perspectives. Elements of collaboration and building a collaborative partnership has been documented by Weiss, Pellegrina, Regan, and Mann (2014). They followed one pair of educators as they worked through the process of establishing a co-teaching partnership. Their results include suggestions for addressing several obstacles and challenges of implementation starting with the concept of teaching and experiencing collaboration in teacher prep programs. In their introduction, they noted "At the time of this study, there were no taught, cross-disciplinary courses in either the secondary or special education teacher preparation programs in the college of education where the study took place" (p. 89). That said, this study also revealed that collaboration and challenges such as divvying up teaching load, sharing physical space and navigating course requirements are probably not best taught in lectures but by experience.

Incorporating the IEP Goals

Also commonly missing from co-planning sessions are discussions surrounding IEP considerations. King-Sears and Bowman-Kruhm (2015) surveyed 105 educators currently in a co-teaching partnership. Almost all the special educators noted that they used IEPs when co-planning but mostly the accommodations and modifications were the topic of discussion. The challenge comes in for specialized reading instruction. "General educators should be aware of IEP content so they can comply with information that influences their instruction" (King-Sears & Bowman-Kruhm, 2015, p. 180). The challenge that was noted was specialized reading instruction and difficulty making reading progress. Sixty one percent of the special educators surveyed agreed that planning for specialized instruction is difficult. The controversy that was discussed includes content knowledge versus improving reading skills and are we compromising for content? On the other side of that, it is important to note that in interviews with students, Wilson and Michaels (2006) reported that students' participation in co-taught classrooms contributed to self- reported improvements in literacy.

Co-Teaching Implementation

Initiating a co-teaching strategy within a district or individual school requires careful planning, presentation of the concept and inclusion of the teaching staff in the early stages. Isherwood, and Barger-Anderson, (2008) conducted a study specifically targeting factors affecting the adoption of co-teaching models. The author concluded that the first step for success includes teachers being a part of the planning and preparation process. Leaders also need to voice a vision for the co-teaching paradigm shift that includes touting the benefits of the co-teaching model. Three themes emerged from this study. First and foremost, teacher personality and styles need to be considered when establishing co-teaching relationships. Second, teaching was more effective if the roles of each teaching partner were well defined and assigned to them. Finally, there is a need for administrative support and validation through communication and classroom visits.

Brendle, Lock and Piazza (2017) focused on co-teaching implementation strategies to establish a good foundation in the teaching partnership. They interviewed, observed and surveyed two teams of elementary school co-teachers to better understand and improve co-teaching practices. A unique dynamic identified in this study was that teachers rarely collaborated to specifically to discuss co-instruction and assessment methods. While discussing content is important, equally or possibly even more important is instruction and assessment practices. These important aspects need to be considered at implementation, not on the fly. It was determined that

Professional Preparation

Weiss and Lloyd (2009) researched the roles special education teachers took in co-taught classrooms and determined the factors that influenced these roles. Participants were special educators only in secondary schools in a rural mid-Atlantic area. This study provides evidence to show the difficulties of implementing a consistent model of co-teaching. It would seem imperative that administrators and others who encourage or mandate the implementation of co-teaching programs provide implementation support to both general and special education teachers in the form of preparation and administrative support. Most teachers surveyed felt pressured by administrators, other professionals, and the community to participate in co-teaching without much support. As cited by Weiss (2009), Cook and Friend (1998) described some of these conditions they believe must be in place for co-teaching to be successful. These include professional preparation and administrative support. Professional preparation is "opportunities for additional skill development in communication skills, instructional strategies, and collaborative planning" (p. 472). Specifically for administrators, they should be able to help co-teachers plan and schedule their programs, provide incentives and resources for co-teachers to design lessons and reflect about necessary changes to the way they provide services. Gavigan (2012) stated that professional development is necessary for effective teaching. Effective teaching involves inquire, curate, include, collaborate, explore and engage.

Administrative Roles

Administrators should also assist with time management and priority setting to protect teaching partners' limited amount of time. Weiss (2009) identified the following conditions that influenced the roles of special educators as co-teachers: Working within the master schedule for general education, using the content of general education classes, the acceptance of the general education teacher, and considering the academic needs of students with disabilities. Administrators should be aware of these factors and understand that many teachers feel pressured and mandated into co-teaching roles by not only administration but the influences of professional and community groups. Often parents requested co-teaching classes for their children and IEPs coming from the middle schools called specifically for a co-taught setting for specific subjects when they reached the high school. State mandated curriculum and testing programs also put pressure on both general education and special education teachers that teach students with disabilities in the general education classroom (Weiss, 2009).

Austin, (2001) conducted a study that surveyed the perceptions of teachers regarding their experiences and important elements of co-teaching. His theory was the best way to assess the effectiveness of collaborative teaching programs is to survey the perceptions of the teachers themselves. He included 139 collaborative teachers from nine school districts in Northern New Jersey. Only 37 of the 139 responding indicated they had volunteered for the co-teaching assignment. Most teachers surveyed were not satisfied with the level of support received from their school yet all teachers responding indicated it as a positive experience. Most of these teachers indicated that school administrators need to develop and promote a model of collaborative teaching that is supported by quality research and practice. Schools should seek out effective in- service training programs or work at developing them in collaboration with state education agencies (Austin, 2001).

Pre-Service Teacher Training

A case study by Kamens (2009) explored the experiences of preservice special education and general education teachers who were paired with teams of special education and general education partnership teachers during their student teaching experience. The purpose was to determine if this student teaching experience would effectively prepare the student teachers for the challenges of implementing a coteaching relationship in their future career. The student teachers in this study reported that they were comforted by having another student teacher to bounce ideas off, but the cooperating teachers had reservations about the student teachers learning the reality of working alone in a classroom. They also learned about the impact of personality as they encountered differences in their partner's style. The student teachers constructed knowledge about the possible structures of co-teaching through experience. This study provided important insight for designing student teaching or field experience structures that prepare teachers for co-teaching and collaborative teaching practices. Henning and Mitchell (2002) also studied the effects of exposure to coteaching experiences while student teaching. This research team's purpose was to respond to the need for better undergraduate preparation for pre-service teachers who will be working with special education students in their regular education classrooms. Participants included general education social studies and special education teacher candidates. This team found that preservice teachers exposed to the inclusion model improved their feelings of teaching efficacy toward students with special needs. They experienced significant changes in attitude resulting from the opportunities presented to them while student teaching. The preservice teachers felt prepared to adapt social studies lessons as needed and were exposed to team oriented communication and curriculum that may benefit all students.

Tzinikou (2015) is another proponent of the significance of teacher training for improved co-teaching skills and attitude. They conducted a study of 15 co-taught classes and attempted to answer the question; Is it possible to promote cooperation of general and special education teachers and develop a model of co-teaching? The participants in this study succeeded in significant improvement of responsibility sharing scoring 3.87 out of 4 possible points in this category. The results were interpreted as the outcome of appropriate teacher training of the co-teachers. It was also determined that a supportive administration can help to increase the opportunities for cooperation and contribute to conflict settlement. As in the study by Henning and Mitchell (2002), Tzinikou (2015) also reported that after receiving training with regard to collaboration and co-teaching, the teachers changed their attitudes by developing great willingness to adopt the suggestions and new knowledge by developing cooperation procedures and high quality collaboration skills.

Administrative Support

Administrators play a very important role in the success of co-teaching partnerships within their school. Keefe and Moore (2004), conducted a study involving eight secondary co-teachers in the same school in Southwestern United States. The authors concluded that many needs must be addressed for successful co-teaching in the secondary classrooms.

Teacher Preparation and Support

Teachers need to be better prepared both by their administrators and through classes on co-teaching within their teacher education programs (Keefe and Moore, 2004). Second, the relationship of the co-teachers needs to be considered by administrators when they pair up the teachers and determine the level of support they need as a team. Finally, the eight teachers in Keefe and Moore's (2004) study also indicated that the importance of establishing appropriate roles "cannot be overstated. "Often times coteachers end up together based on the current schedule and who can be where. The authors of this study emphasized that "schools need to listen to the teachers and students and take their voices into account when planning inclusive classrooms" (p. 87).

Harbort, Gunter, Hull et al. (2009) conducted a study on behaviors of teachers in co-taught secondary classes. Their findings included practices that were ineffective and not geared towards the intent of inclusion for children with disabilities and led them to declare that "the day of large numbers of segregated education classrooms for students with disabilities appears to be at an end; however much information is needed to implement an alternative with positive results for all students" (p. 22). Their key components for effective co-teaching include the need for parity between roles of educators, the use of a variety of instructional models and assigned planning time. These elements will have to be "seriously addressed" in teacher education programs. "Teacher training in regular education, special education and dual certification programs must incorporate sufficient guided practice in competencies such as effective coplanning, provision of feedback to partners, and the ability to evaluate the impact of coteaching on student learning" (p. 22).

Austin (2001) interviewed 139 collaborative teachers in his study and had several conclusions regarding areas of weakness for the administrators. Most of the teachers were not satisfied with the level of support received from their school administrators and noted the teachers needed more planning time. Another general statement made by Austin indicated that school administrators need to develop and promote a model of collaborative teaching that is supported by quality research and practice.

Administrators also need to seek out effective in-service training programs and strive to be responsive to the needs of their co-teachers with respect to logistical and administrative support.

What Principals Need to Know

Niernengarten and Hughes (2010) facilitated a study focused on what teachers want administrators to know when it comes to co-teaching support and challenges. Their analysis of what co-teachers identify for successful co-teaching practice reveals the teachers' perceptions regarding what principals need to know and understand to support co-teaching in their schools. Their first concept was administrative training. Training gives principals and other administrators a clear understanding of what would be required to make co-teaching successful for all stakeholders. The importance of administrator training is reiterated by Nierengarten (2013) in her literature review. "They need to understand what you do" (p. 74) was her statement directed to coteachers. Administrators also need to understand the importance of *compatibility* of teachers in a co-teaching partnership. Both professional and personal characteristics play an important role in the relationship. Good communication skills, flexibility, shared philosophy and a clear definition of roles are essential for compatibility. Student schedules and natural proportions of students that were at-risk or on an IEP versus nondisabled students in each classroom must be considered for the sanity and effectiveness of the teachers. Respect for the teaching assignment is also an important understanding needed for administrators. Administrative actions such as "loaning" a co-teacher to substitute for another teacher sends the wrong message. Administrators need to see

the co-teacher as an important, foundational piece to the general education classroom and not an add on that could be manipulated as needed. *Administrative support and professional development of teachers* should not be overlooked. The role of the administrator cannot be overstated, and he/she must be invested in the initiative. Professional development can further training and dialogue that helps teachers progress and problem solve. The role of the administrator is viewed as both significant and essential.

The Seven Deadly Sins and Research-Based Practices

According to Worrell (2008), administrators play a key role in avoiding "the seven deadly sins" of inclusion. In their article, the following points for administrators are crucial to effective execution of inclusion in secondary schools. Avoiding negative perspectives is number one on the list of administrator responsibilities. Negative attitudes of staff are detrimental to the efforts of inclusion. Poor collaboration needs to be overseen and corrected by administrators along with the role of supporting inclusion by establishing trust and meaningful relationships among the staff. For parents, students, staff and administrators to deem inclusion effective, explicit planning and careful scheduling is key.

Nierengarten (2013) in a literature review intended to explain to administrators how to help their co-teachers teach effectively. This was a consolidation of 30 studies and covers many schools of thought. Nierengarten summarizes 20 research-based practices for administrators starting with training of administrators which overlaps with her 2010 study. Additional concepts covered in 2013 include an important concept not

expressed in any of the other studies. "Allow teachers to choose to participate in coteaching. Choice implies willingness and ownership" (p. 75). She also emphasizes *training before implementation* which she states appears to be an obvious action step but seldom occurs. Knowledgeable administrators are an asset to the effectiveness of the practice and their *regular observation* of the co-teaching team is recommended. Other administrative practices covered by Nierengarten include:

- Be mindful of how change and interruptions affect the teams.
- Allow for peer coaching and observation.
- Allow time for reflection.
- Seek student feedback and perspectives.
- Provide for continual professional development.
- Maintain the teams from year to year.
- Provide incentive, celebration and encouragement.
- Be a visionary.

The role of the administers of both the school and the district is deemed crucial and integral to the success of co-teaching in their schools. Tzinikou (2015) also revealed one more not covered in any of these studies specifically on administrators. "A supporting administration can help to increase the opportunities for cooperation, giving the time and place for the growth of collaborative educational activities concerning instructional planning and delivery, and also, contribution to conflict settlement" (p. 87).

Teacher Perspectives on Co-Teaching

The teacher perspectives on co-teaching are plentiful, important and insightful. Hang (2009) found that the teachers themselves have a positive perspective for co-teaching in general. There are many more schools of thought expressed by teachers than can be reported in these few pages but these are the common themes teachers shared with the researchers.

Teacher Input and Classroom Observations

Establishing a co-teaching partnership starts with administrative decisions. A common theme from teachers involves giving them a voice as the programs and partnerships are established. Isherwood and Barger-Anderson (2008) also brought to light the importance of considering teacher personalities and styles when establishing co-teaching relationships. Giving teachers ownership of establishing the program parameters and creating the partnerships will bring about positive changes to the program, according to Isherwood and Barger-Anderson (2008).

Austin (2001) acknowledged that the majority of teachers did not volunteer for co-teaching, but most considered co-teaching worthwhile. Kamen (2009) found that the impact of differing personalities paired up randomly, not by choice, interfered with planning. One team started by doing their planning separately, stating personality conflicts. Over time, they developed effective shared planning. Teachers surveyed and interviewed by Jewell (2014), indicated that personality traits such as ego, trust and reliability are key to partnership success. On the concept of what strengths improve teacher partnerships, surveys from Jewell (2014) study showed that 44% of teachers said flexibility and 56% chose communication as playing a major role in the success of teaching partnerships.

Mutual Planning Time

Lack of planning time in general, including joint planning time, is a struggle for many teachers. It was acknowledged by teachers in several studies (Hang & Rabren, 2009; Harbort et al., 2007;Jewell, 2014; Weiss & Lloyd, 2002). This concern covers both lack of administrative support in assigning or scheduling joint planning time and the heavy work loads for teachers that have joint planning time scheduled but multiple priorities that interrupt their schedule.

Austin (2001) found that most co-teachers were not satisfied with the level of support received from administrators because they wanted more planning time. If the administrators promoted a model of collaborative teaching that is supported by quality research, planning time would be a priority. Jewell (2014), reported one hundred percent of the teachers surveyed said they have no allotted time together, planning is not supported, and they have no collaboration time.

A unique perspective that was reported by Niernegarten and Hughes (2010) involved administrator observations of the classroom. Co-teaching teams that were observed and interviewed in this study longed to have the administration observe them in the classroom. Their attention and feedback would convey to the teachers a sense of value and interest in the co-teaching project. This would also give administrators a firsthand look at the success of the program and encourage the district to fiscally invest in co-teaching for other schools across the district. Teachers in Niernegarten and Hughes (2010) study indicated that the special educators in this study invested themselves into their co-taught classroom because they had a sense of being valued.

Training

Keefe and Moore (2004) studied the challenges of co-teaching and the need for more training and research on co-teaching effectiveness was identified. One of the issues that was attributed to lack of training was that teachers had different concepts of their roles in co-teaching. Through training, they would learn definitions of effective roles and with purposeful administrative intervention, teacher roles would be defined or, in some cases, assigned to them.

In the 2010 study by Nierengarten and Hughes, teacher training was determined to be one of top requests teachers wanted their administrators to act on. "Those team members who had taught for the longest time realized that there was a need for an upgrade in their teaching practices" (p. 9). Co-teaching is a training opportunity, according to Scruggs et al. (2007). They noted that one of the benefits of co-teaching is that it contributes positively to professional growth. Collaboration and flexibility skills are practiced in the context of working together daily and they are role models for their students. Austin (2001) noted that co-teaching is a worthwhile endeavor and contributes to improvement of each co-teacher's skills. For special education teachers, professional development includes an increase in content knowledge. For general education teachers; improvement in their classroom management and curriculum adaptation skills is noted. Kamens (2009) also believes co-teaching is a training ground for teachers. The opportunity to co-teach lends itself to practicing professional interactions, collaboration and gives them firsthand knowledge about inclusion. Weiss and Lloyd (2009) had a repeated theme throughout their study of teachers that voiced concerns with no administrative support and no planning time. It was summed up as "Administrators and others encouraging co-teaching need to provide support and training" (p.162). This was a district where administrators mandated co-teaching.

Weiss and Lloyd (2009) relayed teacher perceptions surrounding support and training but took this idea in a different direction. The recommendation not only included administrative support but also the vital need to include appropriate professional preparation in their implementations plan so that resources are not wasted. Including co-teaching and collaboration skills in teacher training programs, sometimes specifically including a student teacher experience with co-teaching is one option for training both special educators and general educators. Kamen (2009) studied collaborative student teaching and reported both positive attributes and concerns with this idea. On one hand student teachers praised the experience because they had another person to help with curriculum and scaffolding ideas. Cooperating teachers perceived that it was too many teachers in one room, student confusion on who to approach for questions and it did not teach the student teachers the realities of being in a classroom without other teachers.

Co-Teaching is Difficult

A study by Jewell (2014) was focused on secondary teacher perceptions around the effectiveness of co-teaching in secondary schools. The difficult components that were identified by teachers in this study included concerns with differing teaching styles and the cohesiveness of the co-teaching team. Other factors identified include lack of planning time and difficulty with being second guessed, lack of respect and acknowledgement for their efforts. This study also revealed obstacles to co-teaching include lack of flexibility and communication but the obstacles that are critical to overcome were ego, trust and reliability.

Behavior management is a point of contention between general education and special education teachers. Differing behavior management beliefs, lack of role clarification, assumptions that one teacher is mainly responsible for behavior management are all to blame. Hang (2009) found that both the general education and special education teachers indicated they were 90% responsible for behavior management. In addition, Hang (2009) also indicated statistically significant increases in discipline referrals, tardies and absences during the co-taught year. A need for clarification of roles between the two teachers was also cited as a perception of the same group of teachers. Wood (2017) examined structural practices of co-teaching and identified behavior management as a point of contention. Teachers in this study perceived the need to discuss each teacher's behavior management style and theory ahead of time. Hang and Rabren (2009) noted a difference between the teacher's perspective of improved behaviors yet an increase in the number of behavior referrals. Niernegarten and Hughes (2010) had several teams of teachers whose greatest concern was natural proportions of student needs, ages or numbers. Their co-taught classrooms had higher numbers of students than the average classroom coupled with more academic needs or supports and served a wide age range of students. This happened mostly in the math classes because they had to successfully pass math concepts to move on to the next level. They blamed this difficult phenomenon on computer generated student schedules where attention was not paid to student needs, ages or numbers.

Academic Concerns

High stakes testing and an environment where teachers are pressured to teach high volumes of information is a concern for students in co-taught classrooms. Teachers are being pushed to ensure that everyone can pass some level of standardized testing (King-Sears & Bowman-Kruhm,2011). Daniel and King (1998) found that consistent academic gains do not appear to be an advantage of students' participation an inclusion classroom. Hang and Rabren (2009) found that teachers perceived improved academic performance in the classroom, but testing did not show this result. King-Sears and Bowman-Kruhm (2011) also stated concerns that when teachers use accommodations and modifications, they are circumventing students' need to read and therefore not providing specialized reading instruction. The concern is sacrificing basic reading instruction in a quest to increase content knowledge.

Overall Positive Perspective

Due to the success of the students and the opportunities that co-teaching has to offer; teachers are overall positive when it comes to co-teaching. Scruggs et al. (2010) reported teacher perspectives that range from co-teaching contributes positively to professional growth, academic benefits to students without disabilities and to the value of extra attention afforded all students in a co-taught classroom. Co-teaching is a positive contribution to student behaviors and demonstrates significant confidence and behavior improvements for special education students (Hang & Rabren, 2009)

Student Perspectives on Co-Taught Classrooms

Despite the importance of student perceptions of co-taught classrooms, there are only a few studies that documented student input. Dieker (2007) documented that general education students admitted to learning more about their disabled peers in this setting. This was one study that used student feedback for the analysis of their burning question. Students that played a role in Hang and Rabren's (2009) research indicated that co-taught classrooms provided a good level of support for them. They also relayed a positive perspective for co-teaching in general.

Wilson and Michaels (2006) research was built around students' perceptions of co-teaching for secondary-level literacy instruction. Students that participated in this study believe their skills improved. The researchers assumed that such beliefs could strengthen students' willingness and motivation to tack difficult academic tasks. The students themselves reported that they also experienced improvements in overall skills when enrolled in a co-taught classroom. Key themes also include improved personal confidence and a sense of connectedness.

Shogren et al. (2015) is one of the few studies that researched specifically the perspectives of students with and without disabilities on inclusive schools. Many of the students viewed helping other students as a critical element of inclusion. Student's in classes with co-teachers did not differentiate their teachers by special education and general education. These students described having two teachers in the room as helpful and enjoyed when they were split into two groups. When students without disabilities were interviewed, a consistent message was "they aren't really different from anybody else. They just need a little bit of help" (p. 250). These students also highlighted how being in the same class promoted greater understandings of each other.

CHAPTER III: DISCUSSION AND SUMMARY

Summary of Literature

The concept of co-teaching is perceived as a positive and effective strategy by researchers, administrators, students and teachers that participated in the studies reviewed for this thesis. Teachers reported many benefits and challenges but also had powerful suggestions for co-teaching success based on many years of hands-on experience. Attention to detail and thoughtful preparation was a common theme regarding implementing a co-teaching program. Researchers also found strong connections between administrative support and the success within their school's cotaught classrooms. Administrative support is a critical element when implementing a successful program along with seeking input from teachers and students. While documented perceptions from teachers is in greater abundance than student perceptions, ideas from everyone touched by co-teaching's powerful impact is important to maximize the opportunity for all students.

Benefits

Benefits of co-teaching as expressed by teachers and students include providing students of all abilities a positive learning climate that in turn supports the development of self-esteem, peer tutoring and cooperative learning opportunities. Less emphasis on grades and more on learning, makes for less student stress. Researchers also noted that non-disabled students became friends more often with disabled students who appreciated being a part of "the group". Even though many students did not know why there were two teachers in the room, the students expressed that the availability of two teachers offered more support and created a positive environment (Daniel et al., 1997; Dieker, 2009). While proponents of co-teaching cite student success as a benefit, student perspectives are not abundantly documented (Austin, 2001; Whinnery et al., 1995; Wood 2017).

Improvement in student behavior reported by some co-teaching partners was a benefit due to peers that were positive role models and the assistance of an additional adult in the room. Improved engagement and more connections with teachers in a coteaching situation was praised and contributed to increased focus by all students. Special educators are the primary behavior support in the classroom, but not all teachers were confident that disabled students are getting the support they need. On the flip side, there are incidents of co-taught teachers reporting more incidents of misbehavior in the classroom because of boredom or frustration. (Daniel et al., 1997, Dieker, 2009; Hang et al., 2009; Woods, 2019).

Higher expectations for all students translate to higher levels of academic achievement, intensive levels of support, willingness and motivation. Gains in reading scores were noted but minimal improvement for mathematics, language and spelling were also documented. (Daniel et al., 1997; Dieker, 2009; Washburn-Moses, 2005). Reduced student to teacher ratio is one of the key reasons for co-teaching. Co-taught classrooms have proven to be academically and socially beneficial for all students. Researchers noted increased tolerance for differences and a general sense of acceptance for students with disabilities that are learning alongside their peers. The potentially disruptive nature for students with disabilities is a concern but there is evidence of increased cooperation because there are two teachers (Austin, 2001).

Areas of need for positive professional growth include an increase in content knowledge for the special education teacher and improvement in behavior management skills for the general education teacher. Research based practices that are present in the co-taught classroom encourage professional growth such as training on instructional practices, responsibilities, defining teacher roles, time management, data collection and methods for evaluations. Administrators observing co-teaching teams and providing feedback, peer coaching and allowing time for teacher reflection are all considered important to co-teaching and student success (Nierengarten, 2013; Scruggs et al., 2007). Collaborative methods used for co-teaching are beneficial for all students including the ability to reach twice as many students and engage in one-to-one assistance. For teachers, having another teacher's expertise and point of view makes for improved decision making. Co-teachers also provide students with a wider range of instructional opportunities along with reducing the stigma for students with disabilities by placing them in a classroom with their peers. Professional support for one another through collaboration is a very strong benefit for teachers as they increase their knowledge base of teaching methods. Supporting and sharing experiences, non-disabled students gaining understanding of their disabled counterparts and promoting tolerance for differences are also prevalent co-teaching advantages. (Austin, 2001; Cook et al., 1996; Zigmond, 2005).

Opportunities for students and teachers were noted and reported both by Jewell (2014) and Dieker (2009). Teacher's learning valuable lessons from each other, opportunities for disabled students to engage in general education curriculum and flexibility in how concepts are approached, reviewed and assessed, increases the depth of learning. Both Jewell and Dieker noted that all the students in a co-taught classroom reap the benefits of this inclusive practice. Dieker (2009) and Brendle et al. (2017) both reported that teachers gained skills and knowledge from each other and that students are the winners when teacher's grow professionally. Gavin (2009) approached his research from a slightly different angle; the benefit of including the librarian's expertise as a resource for current ideas, evolving technology and reviewing curriculum. Librarians are also coming into the classroom and taking a co-teacher role while sharing their expertise and adding variety to the general education curriculum. Austin et al. (1995) and Whinery et al. (1995) both report that students are positive about having two teachers and special education students in the classroom which inspires teachers to continue co-teaching. Enthusiasm of the students is contagious and motivational for the teachers involved.

Challenges

The division from special education to general education for the teachers is behavior management versus content knowledge. Often this leads to the general educator taking on the role of sole instructor leaving the special educator providing behavior support throughout the classroom (Dieker, 2009; Weiss, 2002). Social integration was sometimes the only purpose for integration in general education. Austin, 2001, reported that this often emphasized the students' differences because of the large gap in skills among the students. The difficulty of the general education class content serves as challenge for co-teaching partners. This is where collaboration among teachers is essential along with co-teaching team planning time (Dleker, 2001; Nierengarten, 2010; Weiss et al., 2014).

Hang and Rabren (2009), Dieker (2001) and Jewell (2014) all noted that coteaching provides the best venue for combining complementary skills of both general education and special education teachers. The advantage of a content specialist coupled with the special educator's ability to modify or scaffold the curriculum is very favorable to student learning. Collaboration is a critical element to effective co-teaching. Kamens' (2009) study complemented the importance of collaboration and illustrated the critical role that personality plays. Often the pairing of teams is based on availability of teachers and their skills. Personality conflicts that arise demonstrated the negative impact of personality on the effectiveness of their combined skills. Tzinkou (2015) and Dieker (2009) both believe that daily communication among "the team" was another critical element for co-teaching but that does not keep the reality of the daily rigors of being a teacher at bay. Lack of time, desire or perceived need and lack of professional training are all critical elements that could detour even the best co-teachers.

Careful implementation planning establishes a good foundation in teaching partnerships according to Brendle et al. (2017). According to King-Sears et al. (2015) a commonly missed but important element from co-planning sessions is IEP considerations. This study noted the challenge of specialized reading instruction. The concern is compromising reading skills by using accommodations that emphasize content knowledge over reading skills.

Administrative Support

The importance of administrative support was abundantly documented by Keefe and Moore (2004) and Austin (2001). Better preparation of teachers through education programs, consideration of relationships when pairing teachers and establishing appropriate roles cannot be overstated. Administrators listening to their teachers and students is often missed and under emphasized when planning inclusive classrooms. Research-based teaching methods, effective in-service training and responsive administrators are critical to effective co-teaching programs.

Administrative training gives principals a clear understanding of what is required to make co-teaching successful. This includes understanding compatibility of the teachers based on professional and personal characteristics including good communication skills, flexibility, shared philosophies and a clear definition of roles. The role of the administrator is a critical element defined as both significant and essential. Establishing trust and meaningful relationships, explicit planning, contribution to conflict settlement and careful scheduling is key (Nierengarten et al., 2010; Nierengarten, 2013; Tzinikou, 2015; Worrell, 2008).

Teacher and Student Perspectives

Lack of planning time was acknowledged by teachers in several studies and was blamed on lack of administrative support and heavy teacher workloads. Second only to planning time was the need for more training and research on co-teaching effectiveness. Not only for teachers new to co-teaching but those with experience noted the need for an upgrade in their teaching practices. Special educators are seeking an increase in content knowledge: general educators are looking for improvement in their classroom management and curriculum adaptation skills (Austin, 2001; Keefe & Moore, 2004; Nierengarten & Hughes, 2010; Scruggs et al., 2007;).

Only two studies introduced the concept of including co-teaching and collaboration skills in teacher training programs. Not only in theory but also suggesting co-teaching experiences during student teaching to practice these skills. Both challenges and positive attributes were noted for this idea. Student teachers that co-taught had an important step up in collaboration skills but did not always experience enough of the rigors and challenges of teaching alone in a classroom (Kamen, 2009; Weiss & Lloyd, 2009;).

Differing behavior management beliefs, lack of role clarification and assumptions that mainly one teacher is responsible for behavior management were common points of contention(Hang, 2009; Wood, 2017). High stakes testing and the belief that everyone can pass some level of standardized testing leads to pressure to teach high volumes of information. This is a difficult task in co-teaching where consistent academic gains do not appear to create a significant advantage for inclusive classrooms. Teachers may perceive improved academic performance, but testing did not support this result (Daniel & King, 1998; Hang & Rabren, 2009; King-Sears et al., 2011,).

Student perspectives were not rigorously reported in these studies but the few students that were interviewed or observed were generally positive regarding co-taught

classroom environments. General education students admitted to learning more about their disabled peers and praised the level of support in the classrooms. Students also expressed belief that their skills improved which in turn strengthened their motivation and willingness to tackle difficult academic tasks. Students did not differentiate their teachers by special education or general education; they merely described having two teachers in the room as helpful (Dieker, 2007; Hang & Rabren, 2009; Shogren et al., 2015; Wilson & Michaels, 2006).

Limitations of the Research

To locate the literature for this thesis, searches of Educator's Reference Complete, ERIC, Academic Search Premier, and EBSCO MegaFILE were conducted for publications from 1998-2017. This list was narrowed by only reviewing published empirical studies from peer-reviewed journals that focused on co-teaching, collaboration, and inclusion in secondary schools. The key words that were used in these searches included "co-teaching," "inclusion," "collaboration," "team teaching," "least restrictive environment" and "inclusion".

My goal was to narrow my co-teaching content as it relates to benefits, challenges and perspectives of those involved. Because the roots of co-teaching lie with inclusion, I also needed research that analyzed co-teaching with the understanding that the main purpose was to further the education and experiences of special education students. I found that the elements of co-teaching that were studied, related to teacher and administrative elements heavily based on experience in secondary schools. My intention was to use research that was relatively recent (2005 to 2018) but there was not enough within this range. It only made sense to increase this to 1997 to present based on the initiation of the Individuals with Disabilities Act (IDEA) when placing students with disabilities in the least restrictive environment had taken center stage.

What I did not find was a significant amount or reporting of student perspectives. To unwrap that even further, I was looking for student perspectives that were reported from both special education and general education students. A reflection on the similarities and differences between these two groups of students would lend great insight on new ideas for teaching from those that are receiving the benefits. Just like running a business, a good manager seeks feedback from their customers to gain insight regarding the effectiveness and future improvements to their product. To date, researchers have not displayed ample evidence of feedback from the students i.e. the customers of co-teaching practices.

Due to the nature and complexity of observing, interviewing, surveying and analyzing teachers, administrators and students, I also found that the sample sizes in the majority of the research studies were relatively small and regionalized. In many cases the researcher's concern was the inability to generalize their results to other districts and states based on distinct differences in student style, population, demographics and the list goes on.

Implications for Future Research

I believe that future research on co-teaching needs more focus. Looking closer at the elements that were repeated among several studies. A deeper look at specifics of professional training for teachers and administrators, for example, would be the start to developing effective training programs. Using this information to also increase exposure of pre-service teachers to inclusion and co-teaching best practices before they step into the classroom. Analyzing large, diverse samples of student perspectives is crucial to accurately assessing the success of inclusive practices and the future of effective coteaching (or other) practices. It is time for a true assessment of the value and benefits of co-teaching academically and socially.

Implications for Professional Application

Reviewing, summarizing and analyzing a bevy of research based on one concept is an opportunity for all teachers to gain a wealth of information outside of their own classroom walls. Unfortunately the rigors and demands of teaching pulls us in many ways and the luxury of learning new concepts gets lost in the shuffle. Time and energy are the limitations for many but a strong desire for life-long learning is important for the benefit of our students. Kudos to all the teachers that participated in these research studies and shared their experiences so others can learn, and students can reap the benefits. These studies should remind all teachers to share their knowledge and help other teachers improve their effectiveness without "reinventing the wheel".

Before I embarked on this journey that includes exposure to the world of research, I would have shunned any request to participate in a study or a survey citing "I do not have the time" as viable excuse. Wrong answer. Research is how education grows and improves to enhance the experience of our students. I have learned that research is important and I need to participate. Next time a teacher or administrator complains about the ineffectiveness of professional development, we need to remember it's on our shoulders. If we do not share our knowledge, how can we design and disseminate critical content? Instead of criticizing administrators, I propose that teachers professionally feed them information and participate in improving the system.

Co-teaching is not a well-established, one-size-fits-all concept. Differences in teachers, students, settings, demographics, cultures, and leadership all come into play. Each district or possibly each school, needs to take the critical elements of co-teaching; collaboration, professional development, implementation, administrative support and teacher partnership dynamics and formally customize their strategy for success within their unique environment. Research can guide the way, but flexibility and customization are needed for effective co-teaching practices.

Finally, the lack of information available on student perspectives speaks volumes. Co-teaching and inclusion are the result of an effort to improve the experiences and the growth of our students. Teachers as a whole need to seek students' input, truly listen to what they have to say and continue to be cognizant of their own academic growth. While standardized or high stakes testing may not be perfect, it is data. We cannot build effective programs, specifically co-teaching, on perception alone. Feedback from students, data from testing, observational data from administrators and feedback from parents are necessary for success. Being planful, informed, positive and realistic coupled with collaboration among our peers is where education and coteaching move forward.

Conclusion

What are the critical elements of effective co-teaching in K-12 schools? Collaboration is key for improving the effectiveness of co-teaching. Collaboration is where new ideas get started and information is shared that can make a big difference in the classroom. From student engagement to professional growth for the teachers, collaboration makes a difference in all aspects of co-teaching.

Administrative support is the springboard for teachers to build effective coteaching partnerships. Administrators can schedule and support joint teacher planning time plus thoughtfully observe co-teachers in action. Administrators are also a key contributor to the implementation of a successful co-teaching program.

Thoughtful and strategic implementation of a co-teaching strategy builds a great foundation. As teachers embark on their co-teaching journey, there are important details that can be established by an implementation plan developed by teachers, administrators and students. The perspective everyone brings to the table is important.

Prioritized, shared planning opportunities provide ongoing fuel for successful cotaught lessons and assessments. Scheduling and prioritizing joint teacher planning time ensures collaboration happens. Being too busy is not a valid excuse to skip joint planning time; it is a reason that teachers need to participate in joint planning time. Sharing of ideas, concepts and curriculum is key to co-teaching effectiveness.

Professional training opportunities tie all the previous four co-teaching elements together and improves teacher and administrator skills. As technology and student needs change, teachers need to learn new approaches to co-teaching. Ideas for improvement, new online opportunities and different ways of thinking are just a few concepts that are introduced by getting teachers out of their own classrooms and joining other professionals for training opportunities.

Co-teaching is an integral strategy for responding to the educational needs of special education and general education students. Collaboration, administrative support, strategic implementation, shared planning and professional training are critical effective elements to the success of co-teaching in K-12 classrooms. Aguilar, C. M., Morocco, C. C., Parker, C. E., & Zigmond, N. (2006). Middletown High School: equal opportunity for academic achievement. *Learning Disabilities Research and Practice*, *21*(3), 159–171. https://doi.org/10.1111/j.1540-5826.2006.00215.x

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