Special Education Teachers' Perceptions of Importance and Presence of Co-Teaching Practices in Secondary Schools

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Abstract

This pilot mixed methods study examined secondary special education teachers' perceptions of importance compared to the presence of current co-teaching practices. Special education teachers were given The Colorado Assessment of Co-Teaching (CO-ACT) to assess the importance and actual presence of factors related to personal prerequisites, professional relationships, and classroom dynamics in their co-teaching environments. The teachers were also given two open-ended questions to provide additional insight into the reality of co-teaching experiences. One significant finding is that special education teachers believed planning and communication were the most important aspects of co-teaching, but that it was not present to the degree that makes co-teaching effective. The most common responses to the questions of what is important for a successful co-taught lesson were planning, communication, differentiated instruction and assessment. The general education teacher is a master in the specific content area and the special education teacher is a master in providing access to that content using a variety of strategies. Therefore, co-teaching should provide the opportunity to differentiate instruction, and as evidenced by this study, it is not happening consistently despite believing it would be beneficial.

Keywords: co-teaching, secondary, special education, inclusion, professional development

1. Introduction

The two most significant federal statutes related to improving education are: the Individuals with Disabilities Education Act (IDEA) and the Elementary and Secondary Education Act (ESEA, also called No Child Left Behind or NCLB.)

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IDEA, reauthorized in 2004, focuses on the individual child and the services needed to provide an appropriate education in the least restrictive environment. The ESEA likewise has the goal of improving education but its approach is geared more toward closing gaps in achievement test scores while also raising the scores for all demographic groups of students. Due to the provisions in IDEA and ESEA, McDuffie, Mastropieri, and Scruggs (2009) state there has been "a shift in the instructional focus with regard to students with disabilities from *where* they are educated to *how* they are educated (p. 493)."

1.2 Purpose

The purpose of this pilot study was to seek additional evidence of the relationship between general and special education teachers' perceptions of importance and presence of current co-teaching practices within their secondary co-teaching arrangements. This study will extend the current research base as it examines the relationship between the value of the co-teaching factors and the actual implementation in the day-to-day life of a co-teacher.

2. Literature Review

2.1 Inclusive Practices

Friend and Bursuck (2012) define inclusive practices as physical, social, and instructional integration in the school environment for all students with disabilities. This instructional shift is essential for students with disabilities to be included in all aspects of school, not simply physically be in a general education classroom. Therefore, administrators and educators must determine how to best provide support for students with disabilities within the general education curriculum. To meet the demands of the laws and provide access to the general education curriculum, co-teaching has become a popular service delivery model in many secondary schools (Magiera & Zigmond, 2005).

Co-teaching, as defined by Friend and Cook (2013), is

> a service delivery option for providing specialized services to students with disabilities or other special needs while they remain in their general education classes. Co-teaching occurs when two or more professionals jointly deliver substantive instruction to a diverse, blended group of students in a single physical space (p. 163).

Additionally, according to Murawski and Lochner (2011) co-teaching requires three components: co-planning, co-instructing and co-assessing. If all three components are not present, neither is co-teaching! Much of the research states that the first step in developing a successful co-teaching experience is establishing the co-teaching relationship by setting goals, expectations, responsibilities of each teacher, and understanding student needs (Sileo, 2011; Trent et al, 2003). When this step is absent, problems arise because the ground rules were not established. The glitch is that many general education and some special education teachers have not been trained in collaborative models prior to implementation (Kampwirth, 1999), so they are unaware of the critical first step. This collaborative model involves many variables to be effective, but at a minimum both teachers must have a basic understanding of the common approaches of co-teaching.

2.2 Co-Teaching Approaches

Cook and Friend (1995) identified six common co-teaching approaches. They are 1) one teach, one observe, 2) station teaching, 3) parallel teaching, 4) alternative teaching, 5) team teaching, and 6) one teach, one assist. These approaches are simply instructional and grouping options available to teachers, but many aspects of the co-teaching environment must be taken into consideration before deciding which approach to use. Some aspects to consider are: general education and special education teachers' content knowledge, pedagogical knowledge, overall strengths and weakness of teachers and students, curriculum, resources available and the specific needs of the students in the classroom (Cook & Friend, 1995; Dieker & Murawski, 2003). When considering all of these aspects, it is conceivable and advantageous that co-teachers use different co-teaching approaches and grouping formats throughout the week based on the lesson(s) being implemented (Elbaum, Vaugh, Hughes & Mood, 1999).

Research identifies multiple components that contribute to co-teaching effectiveness such as: positive staff attitudes, logistical support from administration, and training in and prior exposure to both co-teaching methodology and instructional practices (Bauwens, Hourcade, & Friend, 1989; Friend & Cook, 2010; Vaughn, Schumm, & Arguelles, 1997; Walther-Thomas, Korinek, McLaughlin, & Williams, 2000).

In Murawski and Dieker's (2004) meta-analysis of secondary co-teaching methods, they identified administrative support, understanding roles, effective planning and shared classroom management as the most important aspects for effective co-teaching to be implemented. Research has provided a foundation for effective co-teaching, but training of and implementation of these practices is still widely varied in most secondary settings.

2.3 Co-Teaching Effectiveness

Additional research has provided evidence that one of the most important, but many times the most excluded components of effective co-teaching, is the ability to have a weekly co-planning session (Dieker & Murawski, 2003; Keefe & Moore, 2004; Ploessl, Rock, Schoenfeld, & Blanks, 2010). Having a common plan time is essential for both teachers to identify roles and responsibilities, to plan instructional decisions, to coordinate behavior management strategies, and to know the Individualized Education Program (IEP) goals of each student (Cook & Friend, 1995; Dieker & Murawski, 2003; Walther-Thomas & Bryant, 1996). If both teachers are in similar agreement, the classroom environment will be more conducive for learning and positive academic outcomes become possible for all.

A study by Austin (2001) provided evidence that both special and general education teachers believed co-teaching contributed to positive academic outcomes for students. Some of the factors associated with their beliefs were reduced student-teacher ratio, benefit of another teacher's expertise, and remedial strategies for students as needed. These positive outcomes show that co-teachers and students can benefit from having two teachers collaboratively plan and implement lessons when considering all students' needs. Scruggs and colleagues (2007) synthesized qualitative research examining co-teachers' roles, relationships and perceptions. They found that co-teachers believed their practices were beneficial to students, but that co-teaching should be voluntary and not mandatory. Successful teams shared expertise and struggling teams engaged in less collaboration and different teaching styles that lead to conflict. Additionally, many special education teachers were in the assistant teacher role rather than a collaborative partner in the classroom.

Furthermore, the attitudes of teachers and administrators have an impact on both teacher and student success in relation to inclusive classrooms (Henning & Mitchell, 2002).

Self- reports by teachers indicated that there was an overall positive attitude toward students with disabilities experiencing success in the general education classroom but that special education teachers' beliefs were more positive than general educators (Damore & Murray, 2009; Idol, 2006). Fifty-six educators were surveyed in a study by Santoli, Sach, Romey, McClurg and Trussville (2008). The researchers found that 76.8% of respondents did not believe students receiving special education services could be educated in the general education classroom. In this same study, 80% of teachers believed that students with disabilities, especially those with emotional/behavior disorders or intellectual disabilities, would not be able to master the general education content (Santoli, et al, 2008). Less than half of respondents believed general education students benefit from the full inclusion model (Santoli, et al, 2008). This research shows some of discrepancies in general and special educators beliefs about the benefits of inclusive practices for all students.

3. Methodology

3.1 Participants

Potential participants were recruited through the current graduate students enrolled in teacher education courses as well as by contacting former College of Education students through the alumni office. Approximately 100 letters were sent to general and special education teachers who had graduated from the university within the previous two years. After the initial contact, a modified snowballing technique was used (Creswell, 2012; Noy, 2008). Current students and alumni were asked to contact teachers in their school districts who would fit the inclusion criteria and share their information with us. The inclusion criterion were: participants were required to hold a current state-approved teaching license and be a general education or special education teacher who was co-teaching at least one class in a middle or high school. When we received this contact information, an email was sent directly to the potential participant about this study including a link to the electronic survey.

The electronic survey was available for two months and the 17 respondents were all special education teachers representing eight school districts. Eight worked in middle schools and nine were teaching in high school. There were 15 females and two males with 14 having a Master's Degree and three a Bachelor's degree. As seen in Figure 1, the participants' teaching experience ranged from 0-25 years. Four of these teachers reported co-teaching for ten or more years while seven had 2-3 years of co-teaching experience.
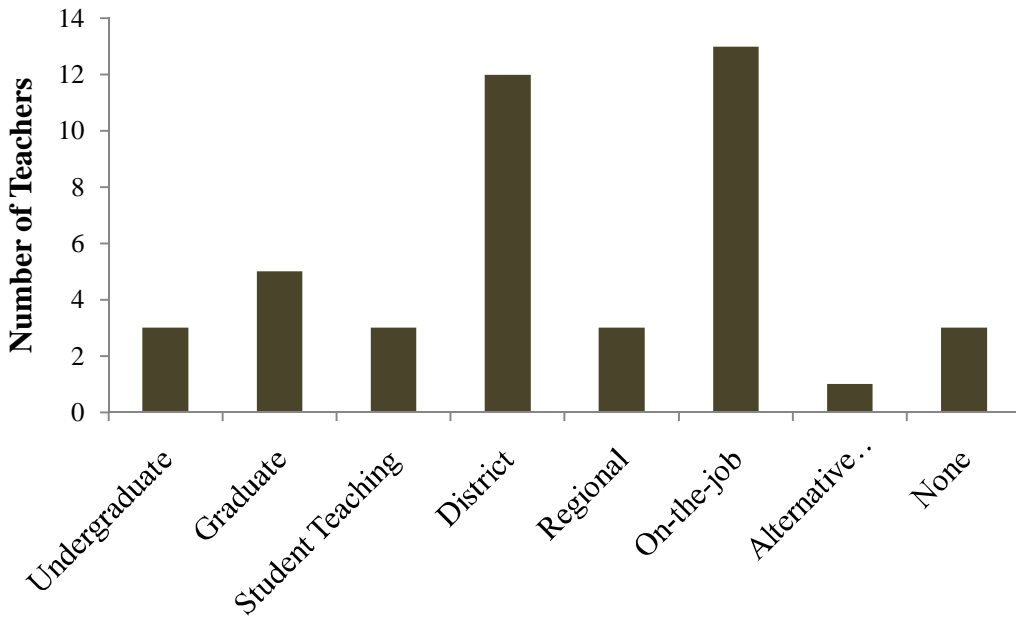
Figure 1: The numbers of teachers reporting having received these different types of co-teaching training.

As seen in Figure 2, endorsement areas included Social Sciences, English, Language Arts and Reading, Science and Home Economics. However, the areas in which the special education teachers were co-teaching also included Math, Science, Media/Technology and Health. Additionally, Figure 3 shows co-teaching training methods, and although teachers reported many approaches to training, the majority of the training was "on-the-job."
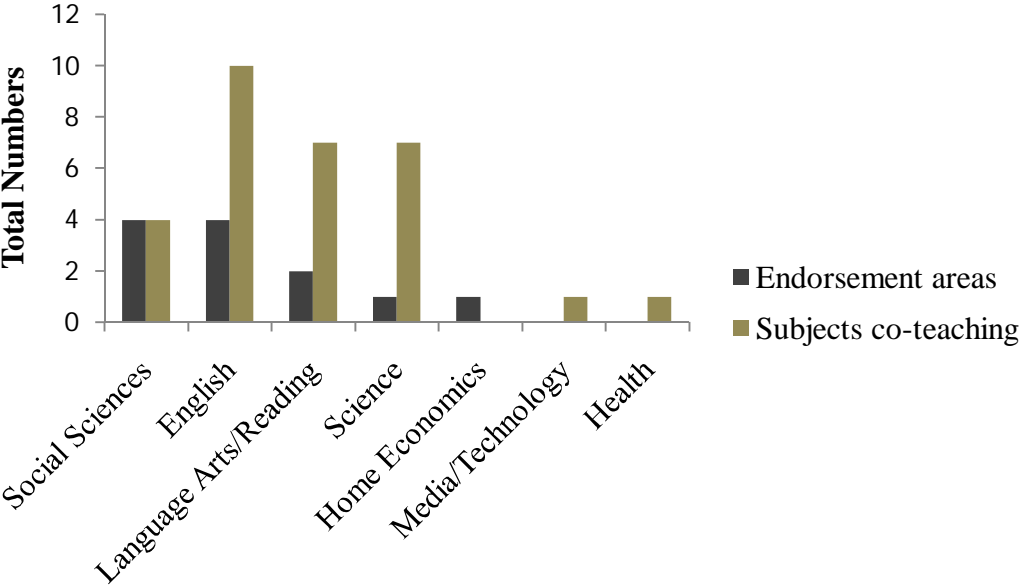
Figure 2: The subject areas teachers are endorsed to teach compared to the subject areas that teachers are currently co-teaching.
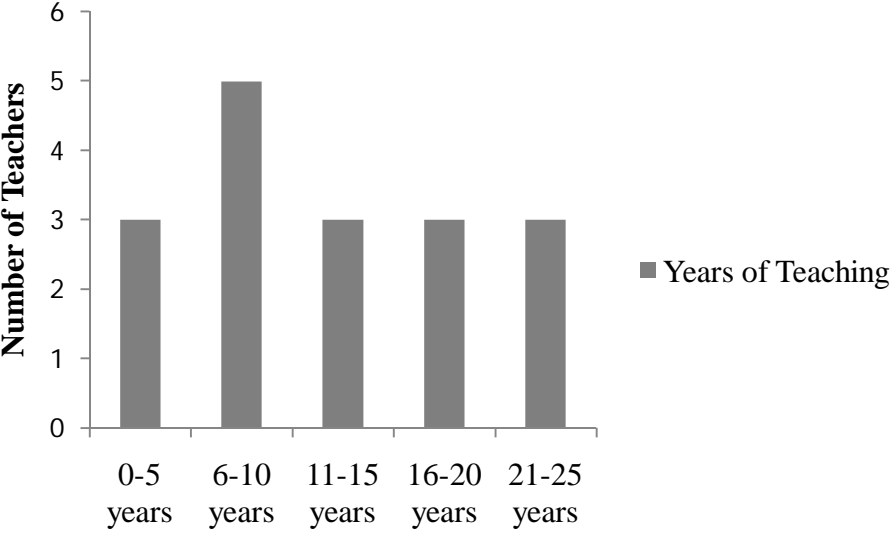
Figure 3: The number of years teachers have been teaching.

3.2 Instruments

The Colorado Assessment of Co-Teaching (CO-ACT) was chosen because we were interested in the importance and presence of known factors for successful co-teaching. The CO-ACT was developed for a federally funded project titled, *Effectiveness Indicators of Collaborative Efforts in Special Education/General Education Co-Teaching.* Data were collected from participants who had been previously rated as exemplary or struggling and statistically significant differences were found between the two groups (Friend, 2008).   In the fifth quarter report of the grant, it is stated that multiple statistical analyses were conducted and final items had been analyzed by ANOVA at the .10 level (Adams, 1993).   After the data analysis, the items that clearly discriminated between the two groups were the ones used for Factors I, II, and III used on the final form. Factor I had 15 personal prerequisites items, Factor II included nine professional relationships items and Factor III had 14 classroom dynamics items. There were four additional questions on the final survey that looked at contextual and foundational factors related to co-teaching (Friend, 2008).

The survey consisted of 42 questions assessing the importance of co-teaching practices and 42 questions assessing the presence of factors that lead to effective co-teaching. Using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) the participants rated the importance of each skill and then the presence that concept occurring in their co-teaching situation. In the original factor analysis (Adam, 1993) the individual items loaded on three factors.

Factor I had 15 items related to personal prerequisites such as understanding their purpose while co-teaching, having a shared philosophy, monitoring progress, being competent problem solvers and willingness to share knowledge and skills. Factor II included nine items related to professional relationships including equal responsibility and shared decision making. Factor III was titled Classroom Dynamics as it used 14 items to examine motivation techniques and differentiated instruction. There were four additional questions that did not load onto a factor but examined interpersonal skills and planning concerns related to co-teaching (Friend, 2008).

In addition to survey questions, the co-authors developed two open-ended questions to provide additional insight into the reality of co-teaching experiences. The participants were asked to identify three aspects they believed to be the most important for an effective co-teaching lesson and to share any additional information about their co-teaching experiences.

3.3 Data collection

The survey was administered electronically using Survey Monkey. Each participant was provided the link to the survey, which was available for two months. The following analysis was compiled from the responses and is presented here in each of the parts of the survey.

4. Findings

4.1 Survey

Seventeen special education teachers completed the first half of the survey, but only 13 completed the full instrument. The data were analyzed using t-tests. Means and standard deviations of importance compared to presence of co-teaching characteristics are found in Table 1. The importance mean for Factor 1, Personal Prerequisites, was $\bar{x}$ = 4.31 (SD=0.59) and the mean for presence was $\bar{x}$ = 4.61 (SD=0.40). Independent *t* test results were significant for Factor 1, $t(13)$ = 1.33, p=.003 (one-tailed), which indicates there was a significant difference between importance and presence of personal prerequisites factors. In examining Factor 2, Professional Relationships, it was found to be not significant with the importance mean $\bar{x}$ = 4.50 (SD= 0.44) and the presence mean $\bar{x}$ = 4.39 (SD= 0.53). Although Factor 2 was not significant, there were individual items within the Factor that were found to be significant. Factor 3, Classroom Dynamics, was found to be significant with the importance mean $\bar{x}$ = 4.25 (SD = 0.67) and the presence mean $\bar{x}$ = 4.57 (SD = 0.36) and $t(13)$=1.77, p=.009. These results indicate a discrepancy between what teachers believe to be important and the actuality of what is happening in their co-taught classrooms on a daily basis.

Knowing there were significant discrepancies, we further analyzed the data using *Cohen's d* (Creswell, 2012). The larger the value of *d,* the larger the effect we can expect in the population. A moderate effect size is determined as ± 0.5 and a large effect size is ± 0.8. Table 1 includes the items with a moderate or large effect size. The items with the largest effect size were: (a) co-teachers have schedules that permit them to plan together, *d*= 1.49 and (b) co-teachers regularly set aside a time to communicate, *d*= 1.12.

Table 1: Differences in CO-ACT Surveys Importance vs. CO-ACT Surveys Presence for Secondary Teachers

	Importance		Presence			
Item	M	SD	M	SD	p	Cohen's d
Factor 1 Personal Prerequisites (n=13)	4.31	0.59	4.61	0.40	0.003	0.60
Co-teachers share common goals for the co-taught classroom	4.79		4.21		.01	.87
Co-teachers are willing to share their knowledge and skills with each other	4.86	.36	4.42	.27	.01	.85
Co-teachers share a philosophy about learning and teaching	4.57	.65	4.0	.78	.01	.80
Co-teachers make a commitment to deliberately build and maintain their professional relationship	4.57	.65	4.0	.96	.003	.71
Co-teachers regularly assess what's working and what isn't	4.64	.63	4.21	.80	.01	.60
Factor 2 Professional Relationships (n=13)	4.31	.44	4.39	.53	.29	Not significant
Co-teachers make important decisions together	4.57	.65	4.0	.96	.02	.71
Co-teachers carry their part of the workload	4.57	.65	3.86	1.29	.01	.74
Factor 3 Classroom Dynamics (n=13)	4.25	.67	4.57	.36	.009	.64
Co-teachers make continual adjustments to ensure student success	4.64	.63	4.0	.96	.00	0.81
Co-teachers use a variety of techniques to motivate students	4.58	.65	4.21	.70	.01	.53
Most significant questions						
Co-teachers have schedules that permit them to plan together	4.54	1.13	2.54	1.56	.0005	1.49
Co-teachers regularly set aside a time to communicate	4.62	.87	3.54	1.05	.001	1.12

4.2 Open-Ended Questions

Teachers responded to two open-ended questions at the end of the survey and these responses were analyzed using text analysis (Leedy & Ormrod, 2013) as both researchers hand-coded the data to identify critical themes.

When asked to identify three aspects that are most important for a successful co-taught lesson, the most common responses were planning, communication, differentiated instruction and assessment. One response from a participant stated

For a co-taught situation to be successful there needs to be: 1. Constant communication with the two teachers about the lesson and expectation of each other. 2. The information is presented in a variety of ways to reach a variety of learning styles. 3. The assessment tools need to be appropriate for the students that are in the classroom and their learning styles.

It was recognized that while there are benefits to co-teaching at the secondary level, no situation is perfect. However, one participant commented "I assume it might been even more successful with more training and time allowed for planning and collaboration."

When asked to share any additional information about their co-teaching experience, participants stated the need for shared planning time is critical and that many of them are teaching in areas in which they are not endorsed. One participant stated

A problem that is developing at our school is the placement of a disproportionate number of high risk or problem general education students in the co-taught classes, thereby skewing the goal of real inclusion of special education students in the general education setting.

This is an interesting perception related to the definition of inclusion and how inclusive practices are being implemented within our schools.

5. Results

This pilot study investigated special education teachers' perceptions of the importance and presence of factors in co-taught settings. A significant finding is that special education teachers believe planning and communication are the most important aspects of co-teaching, but that it is not present to the degree that makes co-teaching effective. This is consistent with the findings of Dieker and Murawski (2003) and Welch (2000).

The consistency of the research is concerning because it has been widely documented in the literature that there must be communication and co-planning in order to provide students with the most effective learning environment and academic outcomes, but it is still not occurring for the special education teachers in this study.

5.2 Factor One

In Factor One, Personal Prerequisites, there was an overall discrepancy between the importance and presence of common goals, shared philosophy and assessment. The bigger issue within the co-taught classroom is that the expertise of both teachers is not being used which may have an impact on student learning. The general education teacher is a master in the specific content area and the special education teacher is a master in providing access to that content using a variety of strategies. Since special educators are trained to be instructional strategists they must be willing share their knowledge of strategies with the general education teacher, despite feeling intimidated by content at times (Keefe & Moore, 2004). Therefore, one of the most important aspects of effective collaboration is parity (Friend & Bursuck, 2012). It is essential for both teachers to view the other one with respect and to understand each other's roles in contributing to student learning outcomes. If roles and responsibilities were discussed at the beginning of implementation, both teachers would feel valued for their contributions (Sileo, 2011; Trent et al, 2003).

Another of the essential characteristics of effective collaboration is shared goals, which is represented in Factor One of the survey. The foundation for a successful classroom must be built on a common philosophy and shared goals. When both teachers are working with the same purpose in mind, the environment will be more inclusive. If there is a discrepancy about the foundation, then the important conversations about effective teaching will be avoided.

5.3 Factor Two

The relationship between importance and presence of Professional Relationships, Factor Two, was non-significant, but there were two items that did have a moderate effect size. The two items with moderate effect sizes focused on co-teachers making important decisions together and co-teachers carrying their part of the workload.

Since it is documented that these co-teachers lacked specific training and consistent professional development on co-teaching methods, effective implementation becomes nearly impossible. The majority of these co-teachers received on-the-job training from other co-teachers who probably received on-the-job training, so using an ineffective co-teaching model will inevitably lead to teaching being ineffective.

5.4 Factor Three

The relationship between important and presence in Factor Three, Classroom Dynamics, was found to be significant. Additionally, this item: *Co-teachers make continual adjustment to ensure student success* had a large effect size of $d=.81$. This indicates that although special education teachers believe this is valuable, it is not happening in their classrooms. That is of concern because as a teacher, adjustments must be made based on student engagement and behavior in the classroom.

One of the characteristics of an effective teacher is flexibility in teaching. The frameworks of Differentiated Instruction (Tomlinson, 2001) and Universal Design of Learning (Rose & Meyer, 2000a) should be the embedded in all classrooms, but especially in secondary co-taught classrooms. When there are two teachers with different areas of expertise who can employ different instructional methods to teach all students based on their individual needs and lesson purpose, cohesion is critical for success. Lack of cohesion may especially impact students in secondary settings due to the content area expertise. The co-teaching model is currently being used to service students with little data to prove that co-teaching is effectively implemented.

5.5 Planning and Communication

Finally, the two most significant items which were not part of Factor I, II or III were: *Co-teachers have schedules that permit them to plan together, $d=1.49$* and *Co-teachers regularly set aside a time to communicate, $d=1.12$*. Both of these items focus on planning, which is a bigger issue than what is simply happening in the classroom on a day-to-day basis. It involves administration and coordination to make sure co-planning is available for teachers, which has been consistently documented in the research as an area for improvement for co-teaching to be effective (Mastriopieri, Scruggs, Graetz, Norland, Gardizi & McDuffie, 2005). Depending on the school culture, collaborative initiatives may or may not be encouraged or welcomed.

Both budgetary and time constraints impact the school culture and the administration's willingness to explore scheduling options that allow for more shared planning. This is a conversation that must happen. Since many administrators may not have been personally involved in a co-teaching situation, they must also go through training to understand the complexities involved in creating a systematically effective co-teaching approach.

5.6 Limitations

The major limitations to this study are directly related to the participants. First, the sample size was extremely small and due to limited time and resources, no further teachers were contacted after the initial emails were sent. Second, the intent was to attract co-teaching pairs to participate so that the general education and special education teachers could both contribute insight about the factors associated with co-teaching, however, only special education teachers responded. Since the CO-ACT was designed and analyzed on co-teaching pairs (general and special education teachers), it may not provide the exact data we need when only addressing special education teachers. Third, all participants were from a specific area of a central plains state. Finally, the survey had 42 items for each presence and importance totaling 84 items and 2 open-ended questions, so it may have been too expansive to get accurate ratings of all items, since four individuals did not complete the entire survey. Given these limitations, the results cannot be generalized to other populations but the results can be used to justify a larger study.

5.7 Conclusions and Future Research

Co-teaching should provide the opportunity to differentiate instruction, and as evidenced by this study, it is not happening consistently even though teachers view differentiation as a major benefit of co-teaching. This pilot study indicates the importance of continuing this line of research and aids in building co-teaching as an evidence based practice. The authors will use the results of this study to initiate a larger study and as a foundation for recruiting pairs of co-teachers. It will be essential to find pairs of teachers (general education and special education), as well as the administrators to further explore the complexities of secondary co-teaching. General education teachers now share the responsibility for teaching the curriculum with the special education teachers.

However, forcing teachers to work together with conflicting goals or beliefs makes effective co-teaching an elusive goal for some (Friend & Cook, 2010). In order for co-teaching to be successful for everyone, it is important to acknowledge the changing roles of the general education and special education teachers (Tannock, 2009). To determine how best to implement co-teaching, we must have general education teachers' perceptions, which could lead to changes in training of collaboration and co-teaching in teacher training programs. Since secondary schools are employing co-teaching, we must determine the best possible approaches so training can be effective and student achievement will be positively increased.

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