THE EFFECTIVENESS OF CO-TEACHING VS. SOLO-TEACHING IN THE MIDDLE SCHOOL CLASSROOM

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TABLE OF CONTENTS

CHAPTER I: INTRODUCTION

My research will focus on the effectiveness of co-teaching versus solo-teaching in the middle school classroom. Co-teaching is a recent teaching method replacing traditional style teaching in some areas, especially relating to bridging academic gaps for students with disabilities. Co-teaching "Two teachers are jointly responsible for a class and plan teaching together, plan instruction together, share teaching duties and design collectively all teaching aids" is how co-teaching is defined by Angelides (2006, as cited in Aliakbari & Nejad, 2013).

Studies have been done to research the effectiveness of co-teaching. Emerging research indicates that co-teaching can have positive results, but more so in certain content areas and grade levels. Fontana (2005) conducted a study to determine if the final English and math grades of students with a specific learning disability (SLD) in co-taught classrooms would be higher than the English and math grades of students with SLD in classes without a co-teacher. Fontana found there was no significant difference between the groups related to their writing scores, but the co-teaching group's math and self-concept tests were significantly higher. Aliakbari and Nejad (2013) found different results in an Iranian middle school setting. They found there was no significant difference between the two groups (co-teaching and solo-teaching) related to general English knowledge.

Statement of the Problem

The number of secondary students with mild disabilities who are regularly enrolling in general education classes is increasing (U.S. Department of Education, 1992, 1993, 1994). This increase in special education population increases the demands of teacher workload in regard to planning and instruction (Lenz, Schumaker, & Deshler, 1991). There has been restructuring

efforts in order to change delivery of instructional services, but without the support or training in order to use appropriate instructional procedures, organizational structure, or instructional culture supporting the alternative procedures (Cuban, 1993; Schumaker & Deshler, 1988).

My research will build upon the research of Fontana (2005) by looking at the impact of co-teaching on middle school special education students compared to receiving solo-teaching instruction. I hypothesize these three outcomes: Special education students in co-taught classrooms will make more improvement than similar students in solo-taught classrooms, co-teaching team members (teachers) will find more satisfaction when in a co-teaching setting, and special education students will find more satisfaction when in a co-teaching setting.

Definition of Terms

Co-teaching: Two or more professionals delivering substantive instruction to diverse, or blended group of students in a single physical space (Cook & Friend, 1995).

Lead support: One teacher leads and another offers assistance and support to individuals or small groups (Friend, Reising, & Cook, 1993, as cited in Dieker, 2001)

Station teaching: Students are divided into heterogeneous groups and work at classroom stations with each teacher (Friend et al., 1993, as cited in Dieker, 2001)

Parallel teaching: Teachers jointly plan instruction, but each may deliver it to half the class or small groups (Friend et al., 1993, as cited in Dieker, 2001)

Alternate teaching: One teacher works with a small group of students to preteach, reteach, supplement, or enrich, while the other teacher instructs the large group (Friend et al., 1993, as cited in Dieker, 2001)

Team teaming: Both teachers share the planning and instruction of students in a coordinated fashion (Friend et al., 1993, as cited in Dieker, 2001)

Collaborative teaching and cooperative teaching: Where two teachers share their pedagogy, information, and assessment (Aliakbari & Nejad, 2013).

Solo-teaching: Where one teacher is responsible for classroom planning, instruction, assessment, and behavior management.

Individuals with Disabilities Education Act 1997: (IDEA) Students with disabilities are to receive the same content knowledge as their peers.

Special Education: Classes for children who have special needs because of physical or learning problems (Merriam-Webster's Learner's Dictionary, n.d.)

Regular or General Education: The program of education that typically developing children should receive, based on state standards and evaluated by the annual state educational standards test (abouteducation.com, 2016).

Individualized Education Plan (IEP): A written statement of the educational program designed to meet a child's individual needs.

Specific Learning Disability or Learning Disability (SLD, LD): A general term that describes specific kinds of learning problems. A learning disability can cause a person to have trouble learning and using certain skills. The skills most often affected are: reading, writing, listening, speaking, reasoning, and doing math (Center for Parent Information and Resources, 2016)

Other Health Impairment (OHI): Having limited strength, vitality, or alertness, including a heightened alertness to environmental stimuli, that results in limited alertness with respect to the educational environment, that is due to chronic or acute health problems such as asthma,

attention deficit disorder or attention deficit hyperactivity disorder, diabetes, epilepsy, a heart condition, hemophilia, lead poisoning, leukemia, nephritis, rheumatic fever, sickle cell anemia, and Tourette syndrome and adversely affects a child's educational performance (Center for Parent Information and Resources, 2016).

Pull-out strategy: Special education student receives general education instruction in a small group setting not with peers.

Resource room: Also referred to as special education room, where students with disabilities receive services.

Delimitations and Limitations of the Research

There are two major delimitations to the co-teaching research. The first major delimitation is the special education students included in the study will not have the same disability or may have multiple disabilities. Students in this study will have a primary disability: Autism, intellectual disability, specific learning disability, and other health impairment, and in some cases, a secondary disability.

The second major delimitation is that not many studies have been done on the middle school level. Research is needed to validate collaborative instructional models at the secondary level specifically. The third delimitation is co-teaching training and support teachers receive before and during their co-teaching experience. The instructional dynamics involved in co-teaching have not been objectively investigated. There is a need for research to describe the impact of collaborative instruction and academic outcomes for students with mild disabilities.

The existing research on collaborative efforts between special education and general education teachers focused on studies in which special education teachers function in one of two

roles: provider of indirect services through consults with general education teachers or a provider of partially direct services in general education classrooms, but few interactions between the two teachers during instruction.

Method of Approach

I will be reviewing relevant and appropriate related research and will provide strong support toward my hypotheses. The literature is strong peer reviewed journal articles or scholarly books.

CHAPTER II: REVIEW OF THE LITERATURE

Research Question

Co-teaching is a recent, new teaching method replacing traditional style teaching in some areas, especially relating to bridging academic gaps for students with disabilities. Cook and Friend (1995, as cited in Dieker 2001) define co-teaching as having two or more professionals delivering substantive instruction to diverse, or blended group of students in a single physical space. The main question addressed in my work was whether co-teaching or solo-teaching is more effective for students with disabilities.

Literature Review

The trend toward serving students with mild disabilities in a more inclusive setting has come from a variety of influences including: social (e.g., Senge, 1990; Toffler, 1990), financial (Deming, 1992; Thurow, 1992), political (Hales & Carlson, 1992), and philosophical influences (Boudah, 1991; Vacca & Padak, 1990). This need fueled the study by Boudah, Schumacher, and Dehler (1997), where they studied the effects of collaborative instructional model in inclusive secondary classes in which students with mild disabilities and low-achieving students were enrolled. Their study looked at the instructional actions of teachers, teacher satisfaction with the instructional model, student engagement, student use of four strategic skills, and student performance on content tests.

Their study had two specific goals: to determine the effects of a teacher training program in the Collaborative Instruction Model (CI Model) on teacher performance in the classroom and to determine the effects of teacher implementation of the Collaborative Instruction Model on student engagement and academic outcomes. The CI Model created for the study is defined as

an instructional environment that includes two teachers, one general education teacher and one special education teacher, who work in the environment simultaneously to enable students to be more successful learners (Boudah, 1995). The CI Model was created so that students with disabilities are not going to receive pull-out services in a resource environment but receive enhanced content instruction in the general education classrooms and still meet the high demands.

In the study, the four experimental and four comparison classes took place in secondary schools with a large multicultural, midwestern metropolitan student population during the 1993-1994 school year. The experimental group was made up of eight experimental teachers, divided into four teams of two (four were general education teachers and four were special education teachers) who were trained in the CI Model. The comparison group was made up similarly except teachers were not trained in the CI Model. The specific content areas in which both groups participated in were history, science, and literature.

Their study found that after receiving training in the model, teachers' mediation of student learning and their involvement in instructional roles increased. Teacher satisfaction was also found. There were various results for student measures, validating there is a need for further research about the effectiveness of collaborative instruction in inclusive secondary classrooms. The study also drew attention to educational policy, teacher training, and classroom practice.

The co-teaching method originates from the inclusive intent of the Education for All Handicapped Children Act of 1975. The law states all children with disabilities are to be educated in the least restrictive environment (LRE) to the maximum extent. Banerji and Dailey (1995) investigated the effectiveness of an inclusive educational program for elementary students

with specific learning disabilities (SLD). In the study, they focused on two concepts: the meaning of inclusion and the research to support inclusion in education.

The concept of inclusion is that students with disabilities would benefit academically and socio-emotionally from learning alongside their peers. A term to address this type of environment as been referred to in literature as "mainstreaming". Students who were segregated from their peers perceived stigma. Banerji and Dailey concluded that the co-teaching environment provides a stigma-free environment where students can grow academically and socially-emotionally.

To be considered an inclusive environment, the school system needs to meet all six characteristics that Banerji and Dailey identified. First characteristic: All students attend the school they would attend if they did not have a disability. Second characteristic: A natural proportion of students with disabilities occurs at school. Third characteristic: Zero rejection philosophy occurs where no student is excluded due to type or extent of disability. Fourth characteristic: School and general education (regular education) placements are grade and age appropriate, no self contained classes. Fifth characteristic: Significant amounts of general instruction practices include cooperative learning and peer instructional methods. Sixth characteristic: Within the general education environment, special education supports are provided.

Banerji and Dailey found a previous study by Affleck, Made, Adams, and Lowenbraun (1988), which had compared the reading, mathematics, and language achievement of elementary students with disabilities who were pulled out for instruction compared with those similar students who received an integrated instruction program with their peers. Their study found there

were no significant differences for students with SLD between the two programs. This led to Banerji and Dailey concluding that if the integrated model was at least as effective as the pull out instruction for students with disabilities, the integrated model was identified as the LRE. An additional component of the study also looked at the non disabled peers and found they were not inversely affected by receiving instruction alongside students with SLD. To support inclusion even further, Truesdell and Abramson (1992) investigated the relationship between classroom behaviors and final grades. Their study found a significant connection for all academic behaviors except homework and attendance. The reported positive behaviors were attendance, homework, attention, participation, and test scores.

The second part of Banerji and Dailey's study addressed growth in social-behavioral outcomes. They reviewed Madge, Affleck, and Lowenbraun's (1990) peer ratings to assess special education students' social status ratings compared to their non disabled peers. The ratings revealed special education students had not only a significantly lower social status compared to their non disabled peers, but also concluded integrated classrooms provided an environment where less stigma was perceived by special education students because they were able to blend in socially. A similar study done by Clever, Bear, and Juvonen found that the lowest self-perceptions for students with SLD was in the area of scholastic achievement. To support their study, a study by Jenkins and Heinen (1989) concluded no matter the students' typology, (general, remedial, or special education), students preferred not to draw attention to their learning problems and preferred to receive instruction from the general education teacher rather than the resource or special education teacher. Both studies support an inclusive environment for elementary special education students.

Fontana (2005) conducted a study to determine if the final English and math grades of students with a learning disability (LD) in co-taught classrooms would be higher than the English and math grade of students with LD in English and math classes without a co-teacher. The target population was eighth grade students with learning disabilities who were a part of the inclusion setting. Students in the research group were individually assigned into an English and math co-taught classroom. The students in the control group were randomly assigned to English and math classes each with one teacher. Fontana found there was not a significant difference between the groups on their writing scores. On the math and self-concept tests, the co-teaching group had significantly higher scores. Fontana (2005) showed that an inclusion model did have some positive results, but only in certain content areas and grade levels. The articles both show significant improvement for students with disabilities, but have not had consistent results into which content areas and grade levels create the most success. Her work helps direct my own research in focusing on specific content areas and grade level academic achievement of students with disabilities in an inclusion setting and pull out settings to a get more definitive answer.

Magiera and Zigmond (2005) observed students with disabilities from four different Western New York schools within the same school district. Students were in fifth grade through eighth grade. The class size ranged between five to fifteen in each school and the disabilities differed (learning disability or other health impairment). Observations were designed to provide information about if instructional experiences of students with disabilities differed during routine conditions of limited teacher training and co-planning time. They measured the instructional experience by measuring group patterns, on-task behavior, and teacher-student interactions. The first significant difference was that students with disabilities received more individual

instructional interactions when a co-teacher was present. The second significant difference was that students with disabilities received fewer interactions from the general education teacher when a co-teacher was present. There was no significant difference in the total number of teacher interactions.

Magiera and Zigmond (2005) explored whether having a co-teacher present gives students with disabilities more instructional interactions. The result was a difference for students with disabilities, in that they received more instructional interactions when a special education teacher was present in the regular education classroom. More instructional interactions may explain why the co-teaching model causes a positive increase in academic success for students with disabilities.

Dieker (2001) examined the characteristics of "effective" middle and high school co-taught teams for students with disabilities. The teams were nominated from multiple sources as outstanding teams and included seven middle school teams and two high school teams from seven different schools. The students with disabilities included students with learning disabilities, emotional disturbances, and mild to moderate cognitive disabilities. Dieker collected observations of co-teaching structure (one per month over 16 weeks), and data related to planning time, student interviews, and teacher interviews. From Dieker's results, they were able to see five clear distinct teaching structures including lead and support, station teaching, parallel teaching, alternative teaching, and team teaching were most successful. The team teaching data found that team teachers equally shared in the creation, instruction, and assessment of the lessons. Those teams also had common planning time embedded in their teaching schedule.

Overall, successful teams used active learning with accommodations/modifications made for students with disabilities.

Dieker (2001) identified the five structures of co-teaching and that related to success for students with disabilities in the regular education classroom setting. This study helped shape my research by causing me to evaluate the methods used when co-teaching and identifying them in the method. Does the type of structure of co-teaching affect the overall academic success of the students? Should multiple structures be used in a classroom? How do teachers select which structures to use? Does common planning time or the lack thereof effect student's success?

Aliakbari and Nejad (2013) examined the effectiveness between co-teaching and solo-teaching on the grammatical accuracy of learners in Iran. They employed a team teaching approach, in a junior high school setting. The teachers and students were all male. Two proficiency and grammar tests were used as assessments; given as pre and post-tests. The results found there was no significant difference between the groups relating to general knowledge of English in an Iranian school. Aliakbari and Nejad discussed that the co-teaching model may not be suitable for every educational system when related to grammar. They also took into consideration that their study only included male teachers and students, finding the study was limited. A similar finding was reported in Japan (2013, as cited in Aliakbari & Nejad), where co-teaching wasn't effective because of cultural differences. These discussions raised the questions, do male or female students respond better to co-teaching and in what content areas does co-teaching produce the best academic results?

Tremblay (2013) explored the relationship between two different instructional models (solo-teaching and co-teaching) and the academic achievement of students with disabilities in an

elementary setting. His study was conducted over two years using first and second grade students. Tremblay focused on the intelligence quotient (IQ), gender, socio-professional status, nationality, language spoken at home, and age. During the October individual testing, first grade students with solo and co-teaching showed no significant differences, but during the June individual and group testing, there were significant differences. In reading/writing, students included in the inclusion setting outperformed those students with solo-teaching, but not in math.

During the October group testing, second grade students with learning disabilities, who were in the special education (solo-teaching setting) tested better in reading/writing and math compared to the students in inclusion (co-teaching), but those differences were not significant. On the June individual testing, scores for the students with learning disabilities in solo-teaching group surpassed the control group in the subjects of reading/writing and math. Overall, Tremblay found in grade two, the differences in reading/writing and math, especially in June were much greater for students with disabilities in the inclusion setting.

Tremblay (2013) examined the differences in academic achievement for students with learning disabilities while using co-teaching and solo-teaching methods in an elementary setting. I wanted to know if the same result would be found in my current school district. If students with disabilities were in an inclusion setting in elementary school, would that yield faster results than just having the students receive special education service in a pull out setting? Would being in the inclusion setting during elementary school significantly decrease the academic gap by the time they reached middle school? I wanted to do research on the difference in academic achievement between my students who receive only inclusion core classes and those who receive

only pull out special education services, while also taking into consideration what type of special education services they received in elementary school.

Hypothesis

I hypothesize these three outcomes: Special education students in co-taught classrooms will make more improvement than similar students in solo-taught classrooms, co-teaching team members (teachers) will find more satisfaction when in a co-teaching setting, and special education students will find more satisfaction when in a co-teaching setting.

CHAPTER III: RESEARCH METHODS

A thorough review of literature on related research related to the effectiveness of co-teaching on middle school students with disabilities (1989-present) was conducted. The search terms used were effectiveness of co-teaching, special education, academic achievement, and middle school students with disabilities. The entirety of the literature reviewed was collected through the search tool EBSCOHOST Information Services, which searches research databases, e-journals, education magazine subscriptions, academic and public libraries.

The research literature forms reviewed were educational journals, education related magazine articles, published public school student and teacher surveys, educational books, and educational papers presented during conferences. The literature relating to research, studies, and anecdotal evidence of the effectiveness of co-teaching in public schools, and its impact on student academic performance as well as increased overall student and teacher satisfaction was analysed to support my hypotheses.

CHAPTER V: DISCUSSION/CONCLUSION

Many schools are trying to bridge the academic gap for students with disabilities by introducing co-teaching as a method. Overall, research shows there is a relationship between co-teaching and academic achievement among students with disabilities, but it is unknown in what settings co-teaching is effective. This leads to the question: Would students with disabilities improve academically more quickly if receiving general education instruction in a co-teaching setting? Co-teaching is in place in some settings, but not in all classrooms that include special education students.

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