ABSTRACT

Title of Document:	AN INVESTIGATION OF INCLUSIONARY PRACTICES BY GENERAL EDUCATION TEACHERS IN MIDDLE SCHOOL CLASSROOMS
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This study investigated teacher reported inclusionary practices and strategies in general education classrooms grades 6, 7, and 8. Students with disabilities were being educated in the general education classroom for varying amounts of time during the school day by classroom teachers with varying amounts of experience with special education practices. The study included a web-based survey of approximately 100 randomly selected teachers who were teaching Language Arts, Math, Science, Social Studies, or any combination of those academic subjects during May 2010. The survey asked teachers what inclusionary practices and strategies they were using and which of these inclusionary practices and strategies they considered to be effective. The survey also asked teachers to select the inclusionary practices and strategies they were not currently using, but would like to use in the future. Survey results indicated curriculum modifications were the inclusionary practice used most frequently and lead and support was the collaborative strategy used most frequently. Teachers considered modifying

curriculum the most effective inclusionary practice and skill grouping the most effective

collaborative strategy. When asked to select the inclusionary practice and strategy not

currently used but that they would like to use in the future, the largest response was none.

AN INVESTIGATION OF INCLUSIONARY PRACTICES BY GENERAL

EDUCATION TEACHERS IN MIDDLE SCHOOL CLASSROOMS

by

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Dedication

I dedicate this work to my husband, Jose Jaime Colon, and my son, Isidoro Frank Colon, who have been the inspiration for this undertaking and the motivation to see it to completion. I love and cherish you both so much. You fill my days with joy and wonder.

Acknowledgements

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CHAPTER I

Introduction

The education of students with disabilities in the general education classroom is known as inclusion and has been a goal of the Individuals with Disabilities Education Act (IDEA) since the passage of the original legislation. The IDEA requires that students with disabilities are educated in the least restrictive environment (LRE). The LRE is defined as follows:

> In general.—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 education 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 (Sec.612, IDEA).

The LRE is measured by the percentage of time an individual student is educated in the general education classroom. The vast majority of students with disabilities is in the categories of Specific Learning Disabilities and Speech and Language Impairment and referred to as "high incidence categories". Most students with high incidence disabilities are served in general education classrooms (Phelan, 2008). According to data provided by states in 2007, 56% of students ranging in age from 6 through 21 were educated 80% or more of the school day in general education classrooms in the United States (IDEA, https://www.ideadata.org/TABLES31ST/AR_2-2.htm 2007).

General educators' perceptions about educating students with disabilities in

general education classrooms are often impacted by the additional responsibilities and duties that inclusion of these students can create (Scruggs, Mastropieri, & McDuffie, 2007). These include the requirement that students' individual education programs (IEPs) must be implemented. The IEP is a written document developed for each student with a disability that includes the description of special education services and related services each student requires.

Students with disabilities must be educated according to their IEP and since the IEP is constructed to address individual student needs, each IEP is unique. Therefore, when a student with a disability is being educated in a general education classroom, the general education teacher must be familiar with each IEP in order to provide appropriate education for each student with disabilities. While, support personnel and special educators often assist students with disabilities in the general education classroom, general education teachers must also provide instruction in the grade level curriculum with accommodations or modifications according to the students' IEPs. General education teachers report a lack of administrative support, training, and support from special education teachers have made this especially challenging (Scruggs et al., 2007).

Several practices and service delivery models have been developed to better enable special education services to be delivered in the general education classroom. These include co-teaching, consultation, supportive resource, and the support of instructional assistants (Friend & Cook, 2000; Idol, 2006). Even with the implementation of these strategies, classroom teachers continue to report a need for more support and training to achieve the goals of inclusion (Scruggs et al., 2007). The successful inclusion of students with disabilities is dependent upon the general education teachers receiving

the support they require in the form that will serve students best. The problem facing successful inclusion is general education teachers continue to report the need for more support from special education teachers and administration (Scruggs et al., 2007). Teacher attitudes regarding inclusion are more positive when co-teachers are given the opportunity to volunteer to co-teach, co-teachers share personal compatibility, and co-teachers are provided training (Scruggs et al, 2007).

Inclusion in the Participating School System

This research was conducted in a large school system that serves primarily military dependents; hereafter referred to as the System. Special education in the System is regulated by the Special Education Procedural Guide (13-G, September 2005). The *Provision of Early Intervention and Special Education Services to Eligible System Dependents* (PSSI 1342.12) is the framework that outlines how services are provided. Information from PSSI 1342.12 is distributed to the schools through the Special Education Procedural Guide. The System has established specific locations within geographical areas to provide special education services for varying levels of required support. The Exceptional Family Member/Special Needs Program (EFMP) is used to screen family members and assist in the assignment to appropriate locations with the necessary level of support in place in regards to overseas assignments (The System Directory, August 2008). The System serves approximately 4518 students with disabilities and is divided into three geographic regions (A, B, and C). In school year 2009/2010 the System had approximately 702 students with disabilities in grades 6, 7, and 8 receiving education in the general education classroom for varying amounts of time in Region A (The System, 2010). According to the Procedural Guide, the following

criteria must be considered by the IEP teams for educational placement of students with an IEP:

1. The educational and social benefits for the student derived from provision of services in the general education classroom;

2. The impact of the placement on the other students in the class;

3. Will the student be successful in working towards attainment of IEP goals and objectives in the general education classroom; and

4. The necessary supports required for successful participation in the class (The System 2500.13-G, 6-12, September 2005).

Currently, students with disabilities in the System are being educated in the general education classroom for varying amounts of time during the school day. General education teachers are frequently expected to instruct students with an IEP in the general education classroom with varying degrees of support such as consultation carried out by paraprofessionals or special education teachers. General education teachers have formally voiced their need for training regarding the instruction of students with IEPs in the general education classroom. Yet, these teachers have received no formal mandated training regarding inclusionary practices since August of 2004. Because of this fact, it is important to better understand which practices and strategies general education teachers are using in their classrooms and how effective they perceive these practices to be. Students with disabilities in the System will receive better instruction if successful and effective inclusionary practices are being used. Therefore, the results of this study may help guide future professional development and information that is shared with all teachers who instruct students with disabilities.

Research Questions

The purpose of this study was to identify inclusionary practices that middle school general education teachers in the System are using and perceive to be effective in supporting the inclusion of students with high incidence disabilities in their classrooms, the following research questions guided the study:

1. What inclusionary practices and collaborative service delivery models do general education middle school teachers report using with students who have IEPs?

2. Which inclusionary practices and collaborative service delivery models do general education middle school teachers consider most effective in supporting inclusion of students who have IEPs?

3. Which collaborative service delivery models, resources, and additional information general education middle school teachers feel they need to support the inclusion of students who have IEPs?

Significance of the Study

This study identified the inclusionary service delivery models and practices general education middle school teachers in Region A of the System indicated they are currently implementing and which they consider most effective in supporting the inclusion of students with high incidence disabilities in the general education classroom. This study also investigated interventions and supports middle school teachers in the System perceive they need in addition to those currently implemented to support the education of students with disabilities.

Overview of the Study

The study was descriptive and utilized a web-based survey. The sample consisted of a random sampling of all middle school grades 6, 7, and 8 general education teachers who do not currently teach special education in the System to result in a sample of 100 general education teachers.

Definition of Terms

Accommodation- An alteration in the way material is presented, or in the environmental settings, or task demands and/or conditions as necessitated to "work around" interference of a disability.

Age-appropriate- At the right level for the chronological (actual) age of the student.

Case Study Committee (CSC) - A committee of the local education agency which has responsibility for determining a student's eligibility for special educational services. If the student is found eligible, then the committee is also involved in developing the needed individualized program for the student. The CSC usually has a special education administrator, the district's psychologist, special educators, the school nurse, and the school guidance counselor. The compilation of the committee members is a function of the school and what the needs are. The child's teacher and parents are part of the committee for the student.

Chronological Age- Actual age, as measured in years, months, and days, as opposed to "mental age".

Collaborative Service Delivery Models- from the System Special Education Procedural Guide (The System, 2005), the items include: lead and support, duet teaming,

speak and add, speak and chart, skill grouping, station teaching, parallel teaching, and shadow teaching.

Communication skills- Listening, speaking, reading, and writing are part of the lesson planning.

Consulting (or Consultant) Teacher- A teacher (usually a special education teacher) who serves as support personnel by either providing direct services to the student in the classroom or by providing indirect services to the student by working with the teacher to help the teacher modify curriculum, materials, etc.

Co-Teaching- Two (or more) educators or other certified staff contract to share instructional responsibility for a single group of students primarily in a single classroom or workspace for specific content (objectives) with mutual ownership, pooled resources, and joint accountability.

Direct Services- Providing services to a student in either one-to-one or small group setting, in contrast to indirect services.

Disability- Any area of functioning in which the individual experiences difficulty (compared to "normal") due to a physical or mental condition.

Education for All Handicapped Children Act- Public Law 94-142. Federal legislation passed in 1975 that makes available a free and appropriate public education (FAPE) for all handicapped children in the United States.

Duet teaming- Teachers contribute equally to instruction.

Exceptional- Refers to any student whose physical, mental, or behavioral performance deviates so substantially (higher or lower) from the average that additional services are necessary to meet the individual's needs.

Exceptional Family Member/Special Needs Program- The mechanism established in all Military Services to screen and identify family members who have special medical and/or educational needs.

Free Appropriate Public Education- Federal legislation (IDEA) mandates that students who qualify for special education services receive FAPE. The individual elements of FAPE are defined in IDEA, but the notion of what constitutes "appropriate" is often a source of conflict between parents and local education agencies, and is defined as much by case law as by legislation.

Goal- Long-range ideal or target. A goal can be established for a student's academic performance or social-behavioral functioning. A goal does not need to be specified in readily observable terms. Goals to be included in IEPs are created and decided on by the IEP team.

Inclusion- students with disabilities are supported in chronologically age-appropriate general education classes in their home schools and receive the specialized instruction delineated by their individualized education programs (IEP's) within the context of the core curriculum and general class activities.

http://www.cpeip.fsu.edu/resourceFiles/resourceFile_18.pdf

Inclusionary Practices- taken from the System Special Education Procedural Guide (The System, 2005), inclusionary practices include: targeting a student's strengths, communication skills, peer-mediated instruction, thinking skills, learning strategies, modifying curriculum, and designing assessments to include performance based and authentic assessments.

Individualized Education Program (IEP)- A written education plan for a school-

aged child with disabilities developed by a team of professionals (teachers, therapists, etc.) and the student's parents. The program is written for a student who has been found to be eligible under IDEA for special education services. The multidisciplinary evaluations and assessments used to determine eligibility also guide the development of the IEP. An IEP must contain particular kinds of information, as specified by IDEA. This information includes the student's present levels of performance in academic areas and social domains. It must include a statement of any supports or services that the student requires, showing how often they will be provided, for what duration, and in what setting. To the extent that the student's needs cannot be met in the regular classroom, the IEP must indicate what proportion of the time the student will be in the mainstream setting.

IEP Team- A team of individuals comprising school professionals, the student's parent(s), and any other individual who have specialized knowledge of the child. The IEP team is responsible for developing the goals and objectives for the child, and writing the program (IEP) that will serve as a "road map" for the student's teachers and related service providers. The IEP team is responsible for reviewing and revising the plan.

Individuals with Disabilities Education Act- PL 101-476. This piece of federal legislation is the heart of entitlements to special education. IDEA also empowers parents as partners in their student's educational planning.

Lead and support- General education teacher instructs and special educator contributes.

Learning Disability or Learning Disorder- A disorder in one or more of the basic psychological processes involved in understanding or using language, spoken or written, which may manifest itself in a n imperfect ability to listen, think, speak, write or do

mathematical calculations. The term includes, but is not limited to conditions such as perceptual handicaps, brain injury, minimal brain dysfunction, dyslexia, and developmental aphasia. The term does not include children who have learning problems that are primarily the result of visual, hearing, or motor handicaps; mental retardation; emotional disturbance; or environmental, cultural, or economic disadvantages.

Least Restrictive Environment- 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 education 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 (Sec.612, IDEA).

Learning strategies- Strategies including the use of graphic organizers or Cornell notes.

Modification- General education program or material is changed in terms of goals, expectations, level of performance or content.

Modifying curriculum- Providing supplemental materials such as lower-level reading material, and using various media, and manipulatives to assist in the attainment of individual progress.

Objectives- Short or intermediate term goals that are expressed in quantifiable and measurable terms. Objectives are the specific measures and targets that will permit the team to assess whether the student is reaching the more broadly stated goal.

Parallel teaching- One teacher provides one segment of the instruction and the

other teacher provides the next segment.

Peer-mediated instruction- Students share their skills in a structured manner to promote learning.

Performance-based and authentic assessments- Assessments including formats such as dramatization, photo display, oral reports, and projects.

Pull-Out- Service or supports removing a student with a disability form their general education classroom to a separate class or location to access the service or support.

Resource Room- A room separate from the regular classroom where students with disabilities can receive specialized assistance. The amounts of time and types services that are received in the Resource Room are decided on by the IEP team.

Shadow teaching- One teacher instructs and the other teacher provides guided practice and individual or group assistance.

Skill grouping- Grouping students according to individual needs.

Speak and add- One teacher leads and the other teacher adds explanations/clarifications.

Speak and chart- One teacher leads and the other teacher charts, graphs, or outlines.

Station teaching- Setting up stations to target skills taught by both teachers.

The System- A large school system that serves primarily military dependents. The System consists of three regions worldwide divided into eight districts including 209 schools.

Target a student's strengths- Allowing students to complete

assignment/tests/quizzes orally, in groups, or with the completion of a project.

Thinking skills- Lesson planning includes analyzing, synthesizing, and evaluating a expectations for student learning.

CHAPTER II

Review of Literature

This chapter presents the background on current professional development opportunities provided to teachers in inclusive classrooms and reviews the literature on effective inclusion practices.

Inclusion Policies

Educating students who receive special education services in the LRE, often considered the general education classroom, has been legally mandated since the passage of the Education of All Handicapped Children Act (Public Law [PL] 94-142) in 1975. The Act establishes the definition of LRE and the procedural guidelines for determining the setting in which a student is to be educated. PL 94-142 mandates:

> To the maximum extent appropriate, children with disabilities, including children in public or private institution or other care facilities, are to be educated with children who are not disabled, and that special classes, separate schooling, or other removal of children with disabilities from the regular educational environment occur only when the nature or severity of the disability is such that education in the regular classes with the use of supplementary aids and services cannot be achieved satisfactorily.

The LRE is not a setting, but rather the law mandates that students be educated to the maximum extent possible with their nondisabled peers (Yell, 2006). The IEP team determines the LRE for each student. Section 504 of the Rehabilitation Act and the 1990 Americans with Disabilities Act (ADA) disallow the prejudiced placement of students with disabilities to segregated classes or facilities. Section 504 requires individuals with a

documented disability have access to an appropriate education comparable to that of their nondisabled peers.

Together, the three laws, the IDEA, Section 504, and the ADA strongly support the inclusion of individuals with disabilities in regular classes. It is up to the IEP team comprised of the students' parents, special education teachers, general education teachers, administrators, and other school staff to follow through with the implementation. The IEP team uses the results from evaluations, their personal knowledge of the students, and the students' individual academic and social needs to establish the LRE for individual students.

The System and LRE. The System requires students with disabilities be educated in the LRE. The System Special Education Procedural Guide (2005) defines the LRE as the following:

Placement options range along a continuum beginning with the general education classroom as the least restrictive environment to homebound instruction. The IEP team, including the parents, makes the placement decision based upon their knowledge of the student, what the evaluation results mean, and the types of appropriate placements. Decisions are to be made in accordance with IDEA requirements that to the maximum extent appropriate, children with disabilities must be educated in the LRE. Special environment may occur when the nature or severity of the disability is such that education in the regular class, even with the use of supplementary aids and services, cannot be achieved satisfactorily. If the IEP team determines that the student can be educated satisfactorily in the general education classroom, that placement is the LRE for

that student.

The System's Special Education Procedural Guide provides four standards to consider when making initial placement decision:

1. Provision of accommodations and supplementary aids and services in the general education classroom;

2. Severity of assessed needs;

3. Individual learning style; and

4. Impact on other student in the environment (The System 2500.13-G, 6-11, September 2005).

In instances where a student's needs are more extensive, the System's Special Education Procedural Guide provides four more standards to consider before deciding to place a student in a more restrictive environment:

1. The educational and social benefits for the student derived from provision of services in the general education classroom;

2. The impact of the placement on the other student in the class;

3. Will the student be successful in working towards attainment of IEP goals and objectives in the general education classroom; and

4. The necessary supports required for successful participation in the class (The System 2500.13-G, 6-12, September 2005).

The final page of the System's IEP document contains the following factors to be considered prior to making placement decisions:

1. Placement of the student is based on his/her individual needs.

2. Student is educated, to the maximum extent appropriate, with students who do not have disabilities.

3. Removal from general education only when the nature and severity of the student's educational needs are such that education in the general education program with supplementary support and services cannot be achieved satisfactorily.

4. Participation with general education students, to the maximum extent appropriate, in school activities.

5. Placement is as close as possible to the student's home or in the school she/he would attend if not disabled (The System 2500.13-G, 6-12, September 2005).

The IEP team must go further in providing a justification for placement which is not in general education placement:

1. Explanation of the extent, if any, to which the student will not participate with non-disabled peers.

2. Describe how the student's disability affects his/her involvement and progress in the general curriculum.

3. For preschool children, indicate how the child's disability affects his/her participation in appropriate activities (The System 2500.13-G, 6-11, September 2005).

The System requires the IEP team use multiple standards to insure students are educated in the LRE.

Inclusion in the Middle School Grades in the System

The System has approximately 702 students with disabilities in grades 6, 7, and 8 receiving education in the general education classroom for varying amounts of time (The System, 2010). The training for how to provide appropriate educational services and support in the general education classroom is inconsistent. General educators receive sporadic formal training on how to provide accommodations and modifications. Informal training in the area of accommodations and modifications is conducted at the discretion of individual schools based on perceived faculty and student needs. This informal training is not monitored closely by the System. For many educators, it is unclear who is responsible for implementing accommodations and modifications in the general education classroom. The general educators are often directed by their administrators or special education staff about how to provide for students with disabilities (personal communication, Former Chief of Staff, May 13, 2011; European Union Rep, May 13, 2011).

Staffing is frequently an issue. Special education teachers teach the pull-out classes in the resource room leaving the general education classroom support up to the paraprofessionals on many occasions (personal communication, Former Chief of Staff, May 13, 2011; European Union Rep, May 13, 2011). On-going training for paraprofessionals is required by the System Compliance Monitoring Standards (The System Monitoring Standards GUIDANCE, p.12, 2006). The System does not mandate how training is provided. The System is currently providing paraprofessionals online training via the Paraeducator Learning Network. The paraprofessionals who support students with disabilities in the general education classroom are required to complete four

training modules per academic quarter for a total of 16 modules annually. The modules provide general information for supporting students with disabilities in the general education classroom. Topics have included autism, classroom management, and documentation. The training modules must be completed, but the specific training module content is based upon the trainee's selection. Therefore, a paraprofessional may never complete the modules specific to techniques in providing classroom support. Some schools choose to supplement this training, but this additional training is not required or monitored.

Formal training in the district on inclusion and classroom support for general and special education teachers and personnel has been provided in the form of Inclusion 101 classes (personal communication, Former Chief of Staff, May 13, 2011; European Union Rep, May 13, 2011). These training sessions are voluntary and occur after school hours and consequently the teachers and paraprofessionals who elect to attend are not compensated monetarily for their attendance. There has been no other formal or informal training for general or special education teachers on inclusion in the past seven years (personal communication, Former Chief of Staff, May 13, 2011; European Union Rep, May 13, 2011). Administrators provide training on an individual basis at their own discretion.

Therefore, given there is little that is provided regarding inclusion, it is difficult to know which inclusionary practices teachers are informed about and consider to be effective as well as which practices they would like to include in professional development.

Review of the Literature

In order to determine the practices found to be effective in supporting inclusion in the general education middle school classroom a comprehensive review of the literature was conducted. The electronic search was conducted using the Research Port of University of Maryland, College Park, MD. The education category was selected and narrowed to the two databases, ERIC & Education Research Complete (EBSCO). The descriptors "special education", "inclusion", and "teacher attitudes" were used to conduct the search. This particular search resulted in 10,396 items. The results were narrowed using the descriptors "students with disabilities" and "co-teaching". Applicable studies were selected and reviewed. An additional search was conducted using the descriptors "special education", "inclusion", and "middle school". This search resulted in 75 items. Applicable studies were selected regarding content and reviewed. A general internet search was done using the descriptors "special education", "inclusion", and "middle school". A total of 15 studies were selected for review. Figure 1 in Appendix A presents an overview of the studies.

Overview of the Inclusion Studies

Of the 15 studies, 12 investigated teachers' attitudes and perceptions of inclusive education. Conoldi, Terreni, Scruggs, and Mastropieri (1998) conducted a study in Italy that focused on Italian teachers' attitudes towards the inclusion of students with disabilities in the general education classroom. The authors surveyed 523 teachers on their attitudes to examine the components that seem to be making inclusion successful. The authors found teachers felt more time, training, personnel assistance, and resources were necessary for inclusion to succeed.

A study by Fried (2007) investigated the perceptions and attitudes of 62 American general education secondary teachers regarding inclusion. These teachers reported needing more collaboration time with colleagues to support inclusion. The teachers worried about the pace of the general education classroom which was not compatible with some students. The teachers also felt the support of instructional aides contributed to successful inclusion. According to Fried, his study is limited by the candor of the participants. He was is not certain that he received honest responses on his surveys due to the sensitive nature of the subject.

Marsh 2008 investigated how classroom teachers felt about the inclusion of students with disabilities. Marsh found teachers were concerned they were unable to provide the most appropriate instruction. Some teachers feared that students with disabilities would not get what they needed in their class to be successful later in life. Marsh's study was limited by the small sample size comprised of 17 general education teachers located at two schools.

The study by Leyser and Romi (2008) examined attitudes toward inclusion of a large sample comprised of 1,145 Jewish and Arab prospective general and special education teachers. The study found national and religious affiliation did not seem to play a role in the teachers' feelings toward inclusion. The two common strains were many teachers were afraid they would not have the knowledge to support inclusion and many were concerned about possible behavior problems. The teachers were concerned that behavior problems might interrupt the classroom instruction.

Berry (2007) investigated the attitudes of 47 novice general education teachers regarding the fairness of accommodations/modifications for students with disabilities.

The fear of being 'unfair' was found to be an obstacle to inclusion. The study done by Brown, Welsh, Haegele, and Cipko (2008) indicated embedded instruction of current special education best practices into preservice general education assessment courses significantly increased general education teacher candidate's knowledge of inclusion terminology and assessment adaptations.

Scruggs, Mastropieri, and McDuffie (2007) conducted a metasynthesis of the published literature that focused on the components of co-teaching that lead to successful inclusion of students with disabilities in general education classrooms. The authors analyzed the findings from 32 qualitative studies conducted during 1989-2006. A total of 454 general and special education teachers had participated in these studies. Scruggs et al. isolated common themes and trends. The major components of co-teaching teachers felt were important were planning time for collaboration, administrative support, compatibility between co-teachers, training, and volunteerism. These were considered critical to the successful implementation of co-teaching and ultimately the inclusion of students with disabilities in general education classrooms. Idol (2006) investigated what teachers in eight schools found to be important for inclusion to be successful. She discovered teachers wanted more training, support, and collaboration. Teachers in this study also felt the scores of students in special education should be looked at separately in statewide testing.

Troia and Maddox (2004) surveyed special and general middle school educators regarding writing instruction to determine common writing instruction methods and teacher beliefs regarding the inclusion of students with disabilities in the general education classroom. The researchers found that support for writing instruction in the

general education classroom in the form of collaboration time for special/general educators, professional development in writing instruction, and close examination of the curriculum is desired by special and general education teachers. Many of the general education teachers made the required adaptations to classroom materials, but were often driven by the necessity to adhere to the curriculum. This study was limited by the small sample size surveyed.

DeSimone and Parmar (2006) surveyed 228 middle school mathematics inclusion teachers from 19 different states. The authors investigated the teachers' attitudes and beliefs regarding the inclusion of students with learning disabilities in general education classrooms. The findings from the survey and interviews indicated the teachers had a limited understanding of mathematical learning needs of students with LD, the need for teacher collaboration, and inadequacy of pre-service and in-service teacher preparation for inclusion. The surveys and interviews did not reveal if the teachers were using individualized lesson plans, simulations, computer-assisted instruction, self-regulation strategies, or teacher modeling. The apparent lack of such instructional strategies could greatly impact the learning of many students not just those with LD. The use of universal design in lesson plans and instruction was recommended as best practices for all learners.

Santoli, Sachs, Romey, and McClurg (2008) conducted a survey of 56 middle school educators. The results of the attitudinal survey revealed the majority of the participating teachers reported having the skills to make adaptations for the students with disabilities, but did not believe the students could master the course content. The main point of contention expressed by the teachers regarded time. The teachers surveyed did not feel that they had support for collaboration time, attending meetings for students with

disabilities, and time to educate the students with disabilities in the classroom.

Only three of the studies examined the effects of inclusion on students with disabilities. A study done by Zigmond and Jenkins (1995) investigated whether inclusion was yielding the desired student outcomes. The authors found general education classroom instruction produced unacceptable and undesirable outcomes for some students with disabilities. The desired outcome for the students with disabilities participating in the general education classroom was that the students would make as much achievement gains as their nondisabled peers with the support of special education. Even with the support of special education in the general education classroom, 63% of the students did not achieve average or better gains.

Mageria and Zigmond (2005) conducted observations in 11 middle school general education classrooms with inclusion with and without co-teaching support. The authors found students with disabilities received more individual instruction in co-taught classes. When special education teachers were co-teaching in the classes, the general education teachers interacted less frequently with the students with disabilities.

A study done by Rea, McLaughlin, and Walther-Thomas (2002) found middle school students with learning disabilities instructed in the general education classroom earned higher grades, achieved higher or comparable scores on standardized tests, committed no more behavioral infractions, and attained higher attendance rates when compared to their peers with learning disabilities who had been instructed in the special education classroom.

Findings from the Inclusion Studies

In reviewing the findings from the research regarding inclusion three factors were

perceived to lead to effective inclusion: appropriate student placement, teacher attitudes, and inclusionary practices.

   Appropriate student placement. Several of the studies questioned whether inclusive settings were appropriate for every student with a disability. Zigmond and Jenkins (1995) found students with disabilities do not necessarily make more progress when instructed in inclusive settings. Mageria and Zigmond's (2005) found students with disabilities received more individual instruction in co-taught classrooms, but noted inclusion did not work for every student with a disability. Zigmond (1995) questioned whether special education lost the ability to provide truly specialized instruction in inclusive settings fearing many of the characteristics of special education that had made it effective for instructing students with special needs were lost when instruction occurred in the general education setting. These benefits include smaller instructional groups, more instructional attention, and frequent comprehension checks.

   Inclusion in the general education classroom resulted in positive outcomes for some students with disabilities. The Rea et al. study (2002) concluded inclusion was successful and was due to the school's ability to respond to individual student needs in the general education classroom. DeSimone and Parmar (2006) also found general education teachers were not aware of individual student needs. Many of the teachers surveyed considered themselves to be quite comfortable or very comfortable in their abilities to adapt instruction for students with learning disabilities (LD), but the teachers did not seem to understand that students with LD have learning challenges that require specific instructional modifications and individualized lesson plans. The teachers were of the belief that it was adequate to provide instruction that was similar to instruction that is

provided for low-achieving students without disabilities.

  Teacher attitudes. The findings of the research also point to the impact of teacher attitudes on the successful inclusion of students with disabilities in the general education classroom. There are many contributing factors that influence general educators' attitudes and perception regarding inclusion. Teachers with high levels of colleague support were more supportive of inclusion and had higher feeling of efficacy about adapting instruction and curriculum (DeSimone & Parmar, 2006). Volunteerism and personal compatibility between collaborating teachers were two factors that led to positive teacher attitudes regarding inclusion (Scruggs et al., 2007). Teachers were more supportive of inclusion when they felt they had the adequate skills and resources to make adaptations and meet student needs (Santoli et al., 2008). According to Conoldi et al. (1998) teachers over 40 years of age reported less support for inclusion. This is thought to be due to the lack of inclusion during their personal education Fried (2007) also found teachers with fewer years of teaching experience showed an increase in tolerance towards inclusion.

  Inclusion practices. Successful inclusion is sustained by insuring the general education classroom has the environmental supports available to provided appropriate education to students with disabilities. The literature indicates that general education teachers require collaboration and support from special education teachers, administrators, and other school professionals (DeSimone & Parma, 2006; Santoli et al., 2008; Scruggs et al., 2007). According to the literature examined co-teaching is one of the most common inclusionary practices implemented to support inclusion of students with disabilities in the general education classroom. Best practices for co-teaching include allowing for collaboration time, professional development, and instructional

assistance. The implementation of these best practices will enable general education teachers to provide instruction.

Summary

A range of definitions exists in regards to what constitutes the least restrictive environment (LRE). The LRE is not a place, but a mandate to educate students with disabilities with their peers without disabilities to the maximum extent appropriate. The LRE is commonly assumed to be the general education classroom with same-aged peers (Scruggs & Mastropieri, 2001). Schools and educators are required to educate students with disabilities in the LRE. IEP teams decide on an individual basis how the LRE will be interpreted for each student with disabilities, but the administrators and educators have varying degrees of expertise and access to resources to accomplish the inclusion of students with disabilities in the general education classroom. When looking at the continuum of service delivery models, the regular classroom is pressured to provide instruction for students with disabilities in the general education classroom. When reviewing the research that reported unsuccessful inclusion and negative student outcomes, it was clear the issue was not inclusion, but ill-prepared schools and professionals.

Due to the complexity of the inclusion issue, the research on inclusionary practices is difficult to generalize. Often the research expresses that educators report a need for more training on instruction for students with disabilities. Students with disabilities are placed in the general education classroom based on their individual educational needs and it is assumed the general education teacher will provide adequate instruction. Many educators surveyed in the research were concerned that the students

with disabilities would not be able to master the curriculum and would not get the education that they needed in order to be successful later in life (Marsh, 2008). Yet, the research indicated general education teachers expressed support for inclusion of students with disabilities in the general education classroom in spite of the concerns regarding lack of administrative support, time constraints for instruction and attending meetings, and the inadequacy of pre-service/in-service training on inclusion (Santoli et al., 2008).

The review of research revealed co-teaching has been a viable inclusionary practice. Students with disabilities educated in co-taught general education classrooms received more individual instruction (Mageria & Zigmond, 2005). Co-teaching enables students with disabilities to be included in the general education classroom with their nondisabled peers while receiving individual instruction when necessary. The research indicates program characteristics for successful co-teaching include planning time for co-teaching, administrative support, personal compatibility between the co-teaching professionals, volunteerism, and training (Scruggs et al., 2007). The research supports that teacher preparation and support are some of the most common obstacles to providing students with disabilities appropriate education in the general education classroom.

The research supports that student with disabilities benefit from inclusion in the general education classroom. Middle school students with disabilities who were educated in general education classrooms achieved higher grades, performed as well if not better than their disabled peers on standardized tests, and attended class more often (Rea et al., 2002). Middle school students with disabilities educated in the general education classroom did not commit more behavioral infractions than their disabled peers who were educated in special education classes (Rea et al., 2002).

Several studies concluded inclusion is beneficial to students with disabilities and can be accomplished with appropriate support from administrators and educators. Successful inclusion is dependent on the educators' ability to individualize the instruction provided in the general education classroom. The results of this review provided inclusionary practices. The System's Special Education Procedural Guide references the same practices and the same need for collaboration and shared responsibility between general and special education teachers (The System 2500.13-G, 6-12, September 2005).

CHAPTER III

Methodology

This chapter describes the methods used to address the three research questions. The sample procedures for collecting information and analyses will also be described.

Purpose of the Study

The overall purpose of this study was to identify the inclusionary practices and collaborative service delivery models the System's middle school teachers found effective in supporting inclusion and meeting the needs of students with disabilities in the general education classroom. The identification of the practices and models reported to be used can guide future recommendations for service delivery models that will enable students with disabilities to be educated in the LRE.

The following research questions guided the study:

1. What inclusionary practices and collaborative service delivery models do general education middle school teachers report using with students who have IEPs?

2. Which inclusionary practices and collaborative service delivery models do general education middle school teachers consider most effective in supporting inclusion of students who have IEPs?

3. Which collaborative service delivery models, resources, and additional information general education middle school teachers feel they need to support the inclusion of students who have IEPs?

Design of the Study

This study was a descriptive study using a web-based survey. A survey was developed to identify the practices and service delivery models the System's middle

school teachers reported using and considered successful in the support of inclusion of students with disabilities in the general education classroom. The practices and service delivery models were taken from the System Special Education Procedural Manual (The System, 2005) and informed by the literature review. The Procedural Manual provides guidance for general and special education teachers as well as administrators regarding the inclusion of students receiving special education services and is used in every school in the System.

Participants

The participants in this study were a sample of general education middle school teachers who were teaching in grades 6, 7, or 8 in Region A of the System during spring of 2010. Participants were randomly selected from a population of all general education middle school teachers in Region A who did not teach special education and who were currently teaching Math, English, Social Studies, Science, or any combination of the four subjects. To select the sample, a list of all middle school, non-special education, teachers who were teaching any subjects in grades 6, 7, or 8 within the Region A during the spring of 2010 were obtained. A total of 318 teachers met these criteria. In order for this to be manageable, approval was received for 100 teachers. These teachers were assigned a number using a random numbers table and then 100 were chosen and assigned numbers from 1 to 100 to survey.

Survey Development

An on-line survey was developed using Survey Monkey (https://www.surveymonkey.com.). The survey was designed to permit participants to complete the survey anonymously. The survey contained 47 items (see Appendix B for a

copy of the survey). The first section of the survey provided the participants with an

informed statement of consent and asked for a yes or no response. If participants selected

'yes' it implied the participant was 18 years of age or older, the research had been

explained to them, and their participation was voluntary. If participants selected 'no',

they were sent to the last screen in the survey that thanked them for their participation

and ended the survey. Responses to this item of the survey were coded 1 = yes and 2 =

no.

The second section of the survey requested demographic information including:

gender, age, years of teaching, education level, number of class periods instructed,

average number of total students per class instructed, and number of students receiving

special education services who were instructed in their classes. These items were

multiple choice questions that required participants to select one answer. Items

requesting participants to select subject(s) and grade level(s) they were currently teaching

allowed for more than one answer in the event the participant was currently teaching

more than one academic subject or grade level. Responses were coded in a chronological

manner regarding the order the choice was presented (e.g., 1 = male and 2 = female).

The third section of the survey included descriptions of inclusionary practices

taken from the System Special Education Procedural Guide (The System, 2005). The

teachers were asked to rate how often they use each of these practices and how effective

they perceive these practices to be when instructing students with disabilities. The

inclusionary practices surveyed included: targeting a student's strengths, communication

skills, peer-mediated instruction, thinking skills, learning strategies, modifying

curriculum, and designing assessments to include performance-based and authentic

assessments (see Figure 3.1). These inclusionary practices were recommended to support

existing instruction in the general education classroom (The System).

▣ **Figure 3.1** Inclusionary Practices Surveyed	
Targeting a Student's Strengths	Allowing students to complete assignment/tests/quizzes orally, in groups, or with the completion of a project.
Communication Skills	Listening, speaking, reading, and writing are part of the lesson planning.
Peer-mediated Instruction	Students share their skills in a structured manner to promote learning.
Thinking Skills	Lesson planning includes analyzing, synthesizing, and evaluating a expectations for student learning.
Learning Strategies	Strategies including the use of graphic organizers or Cornell notes.
Modifying Curriculum	Providing supplemental materials such as lower-level reading material, and using various media, and manipulatives to assist in the attainment of individual progress.
Performance-based and Authentic Assessments	Assessments including formats such as dramatization, photo display, oral reports, and projects.

Figure 3.1. Inclusionary practices used when instructing students with disabilities from the System Special Education Procedural Guide (The System, 2005).

Participants indicated how often they use each of the practices (addressing

Research Question 1) on a Likert scale consisting of always, most of the time, sometimes,

and never. Responses were coded 0 = no response, 1 = always, 2 = most of the time, 3 =

sometimes, and 4 = never. If the participant indicated s/he currently use the practice,

participants were asked to rate the practice's effectiveness. The participant was asked to

rate the practice's effectiveness (addressing Research Question 2) using a Likert scale

consisting of very effective, effective, marginally effective, and ineffective. The items in

this portion of the survey only allowed the participant to select one answer. Responses

were coded 0 = no response, 1 = very effective, 2 = effective, 3 = marginally effective,

and 4 = ineffective.

The fourth section of the survey began by asking the participants what

instructional support is available, specifically if s/he currently instruct a class with the assistance of a special education teacher or a paraprofessional (to address Research Question 1). If the participant responded 'no', they were directed to the next section of the survey. Responses were coded 1 = yes and 2 = no. The respondents were asked to indicate who was providing support in their classrooms to students with disabilities. The respondents were able to make multiple selections from the options consisting of the special education teacher, paraprofessional, and/or other. The responses for this item were coded as follows: 1 = paraprofessional, 2 = special education teacher, 3 = other, 4 = paraprofessional and special education teacher, 5 = paraprofessional and other, or 6 = paraprofessional, special education teacher and other.

The fourth section of the survey also included descriptions of the collaborative service delivery models from the System's Special Education Procedural Guide (The System, 2005). The items included: lead and support, duet teaming, speak and add, speak and chart, skill grouping, station teaching, parallel teaching, and shadow teaching (see Figure 3.2).

Figure 3.2 Collaborative Service Deliver Models Surveyed	
Lead and Support	General education teacher instructs and special educator contributes.
Duet Teaming	Teachers contribute equally to instruction.
Speak and Add	One teacher leads and the other teacher adds explanations/clarifications.
Speak and Chart	One teacher leads and the other teacher charts, graphs, or outlines.
Skill Grouping	Grouping students according to individual needs.
Station Teaching	Setting up stations to target skills taught by both teachers.
Parallel Teaching	One teacher provides one segment of the instruction and the other teacher provides the next segment.
Shadow Teaching	One teacher instructs and the other teacher provides guided practice and individual or group assistance.
Figure 3.2. Collaborative service delivery models used when instructing students with disabilities from the System Special Education Procedural Guide (The System, 2005).	

The participants were asked to rate how often they use these service delivery models (addressing Research Question 1) using a Likert scale consisting of always, most of the time, sometimes, and never. Responses were coded 0 = no response, 1 = always, 2 = most of the time, 3 = sometimes, and 4 = never. If participants indicated they currently use the service delivery model, they were asked to rate the model's perceived effectiveness (addressing Research Question 2) using a Likert scale consisting of very effective, effective, marginally effective, and ineffective. The items in this portion of the survey only allowed the participant to select one answer. Responses were coded 0 = no response, 1 = very effective, 2 = effective, 3 = marginally effective, and 4 = ineffective.

In the fifth section of the survey to answer Research Question 3, the participants were asked to indicate the collaborative service delivery models they are not currently using, but feel would assist then in the instruction of student who receive special education services. The items included: lead and support, duet teaming, speak and add, speak and chart, skill grouping, station teaching, parallel teaching, and shadow teaching. These items were taken from the recommended best practices in the special education procedural guide (The System, 2005). Respondents were directed to check all that applied. Responses were coded chronologically according to the order in which they were presented in the item (e.g., 1 = lead and support).

Respondents were also asked in the fifth section of the survey to indicate if they believe additional resources are required to enable them to implement the collaborative service delivery models. Specifically the participants were asked to indicate the importance of the resources by ranking the four resources: collaboration time with special education teacher, administrative support, professional development, and/or other. The

rankings included least important, not that important, important, and most important. This survey item did not allow the participant to rank more than one selection with the same ranking. Responses were coded resulting in 22 codes due to the high number of different outcomes. The final item in this section was an open ended item and provided the participants with an opportunity to communicate any additional information regarding inclusion in the general education classroom. Responses were coded according to the main idea of their response. Responses were recoded by a second individual to insure the information was interpreted consistently. The coding was compared and no discrepancies were found.

   Pilot testing. The survey was pilot tested to insure items and directions were clear. The pilot test group consisted of 15 professionals who were teaching in the System or were working in the System, but were not part of the sample selected to participate in the survey. They were selected based on their knowledge of the System's Special Education Procedural Guide as well as their experience working in the System. The 15 professionals were sent the survey via email. They were asked to answer the survey items and provide their opinions of the items in a separate email. All 15 participants responded. The pilot testing resulted in one item's spelling being checked but not changed and two individuals suggested that the item addressing 'modifying curriculum' should have a description of what is meant by a modification. It was decided that a description of modifications was unnecessary due to the familiarity of the terms 'modifying' and 'curriculum'. No changes were made to the survey based on the pilot testing.

Data Collection Procedures

   Each of the 100 teachers in the sample was contacted via email four times. The

first contact was in the form of an emailed letter briefly stating the purpose of the survey and requesting their participation and providing a link to the survey. The first item of the survey stated the participants indicates they were at least 18 years of age, the research has been explained to them; their questions have been fully answered; they voluntarily chose to participate in this research project; and then asked them if they were willing to participate. All teachers were then contacted by email each week for three weeks after the initial email to encourage participation in the survey if they had not already completed in the survey (Rosenbaum & Lidz, 2007).

Data Analysis Procedures

The data were downloaded from Survey Monkey and into Statistical Package for the Social Sciences version 18, SPSS, for analysis. Simple frequencies and percentages were calculated for the entire group and then by the following subgroups of teachers: math, English, social studies, science, and teachers who taught more than one subject. Responses to the survey were used regardless of incomplete information. The open ended responses to the last item of the survey were coded and analyzed for frequency.

IRB and Confidentiality

All records and identifying information were destroyed following data analysis. Participants were contacted via email with a letter explaining that all survey responses would be anonymous and the link to participate in the survey. Responses to the survey did not indicate the name of the participant and were anonymous.

Summary of Methodology

This descriptive study utilized a web-based survey to collect information from a random sample of 100 System teachers. The study was analyzed using descriptive

statistics in SPSS to determine which inclusionary practices, instructional support, and collaborative service delivery models used by teachers and how effective these were perceived to be. The data were also analyzed to determine if there were differences between the five subgroups of math teacher, English teachers, social studies teacher, and teachers that instructed more than one curricular subject.

CHAPTER IV

Results

This chapter presents the results of the analyses of the web-based survey

conducted with a sample of middle school general education teachers to examine

inclusionary practices. The first section of this chapter presents the return rates and

demographic characteristics of the respondents and then results are presented by research

question.

Characteristics of the Respondents

Of the 100 teachers surveyed, 32 teachers responded. All respondents indicated

they instructed students with IEPs with the exception of one respondent who declined to

provide demographic information. The group of 32 participants consisted of 12 male

respondents, 18 female respondents, and two respondents who declined to provide

information as shown in Table 1.

Table 1

Gender of Middle School General Education Teacher Participants

Gender	n	%
Male	12	37.50
Female	18	56.25
Declined	2	6.25

The group consisted of individuals less than 60 years of age. The majority of the

respondents reported to being between the ages of 46-60 years of age as shown in Table

2.

Table 2

Age of Middle School General Education Teacher Participants

Age	n	%
22-35	6	18.75
36-45	7	21.88
40-60	14	43.75
Over 60	3	9.38
Declined	2	6.25

The majority of the respondents consisting of 68.75% had earned a Master's degree as shown in Table 3. The majority of the Master's degrees had majors in special education (n=5), education (n=4), and educational leadership (n=2). The remaining Master's degrees had majors of curriculum and instruction (n=2), zoology, social science, educational technology (n=2), English (n=2), educational psychology, mathematics, and literacy.

Table 3

Level of Education of Middle School General Education Teacher Participants

Degree of Education	n	%
Bachelor's	8	25
Master's	22	68.75
Doctorate	1	3.13
Other	0	0
Declined	1	3.13

The majority of the respondents had 11-20 years of teaching experience and 50% of the respondents had taught in the System for 1-10 years as shown in Table 4.

Table 4

Years of Teaching Experience and System Experience of Middle School General

Education Teacher Participants

	Teaching		Teaching in the System	
Years	n	%	n	%
1-10	8	25	16	50
11-20	11	34.38	8	25
21-30	6	18.75	4	12.5
31-40	6	18.75	3	9.38
Declined	1	3.13	1	3.13

Twelve of the respondents indicated they provided instruction in more than one grade level as shown in Table 5. Among respondents who reported they only provided instruction in one grade level, eight teachers reported teaching grade 6, five teachers reported teaching grade 7, and five teachers reported teaching grade 8.

Table 5

Grade Levels Instructed of Middle School General Education Teacher Participants

Grade	n	%
6	8	25
7	5	15.63
8	5	15.63
6 &7	2	6.25
7 & 8	7	21.88
6, 7, & 8	3	9.38
Declined	2	6.25

The most common subject instructed by the group of respondents was English (28.13%). Twenty-five percent of the respondents reported instructing more than one subject, approximately 16% taught math, 16% social studies, and 12.50% taught science (see Table 6). Table 6 indicates the majority (21 respondents, 66%) taught more than one class per day.

Table 6

Subjects Instructed of Middle School General Education Teacher Participants

Subject	n	%
Math	5	15.63
English	9	28.13
Social Studies	5	15.63
Science	4	12.5
Combination	8	25.0
No Response	1	3.13

Table 7

Number of Class Periods Instructed of Middle School Education Teacher Participants

Periods	n	%
3	1	3.13
4	5	15.63
5	21	65.63
6	3	9.38
Declined	2	6.25

The respondents reported the majority of their class sizes were between 15 and 25 students as shown in Table 8. Over half of the respondents (56%) indicated the highest number of students per class were 25 students. Approximately one-third of the

respondents (34%) reported the highest number of students per class was 20 students.

Table 8

Teacher Reported Class Sizes

	Highest per class		Lowest per class	
# of Students	n	%	n	%
10	0	0	5	15.63
15	1	3.13	12	37.50
20	11	34.36	10	31.25
25	18	56.25	0	0
30	1	3.13	0	0
Declined	1	3.13	5	15.63

The respondents report they typically instruct 1-10 students with IEPs with the

majority of the respondents (15, 46.88%) reporting instructing 6-10 students with IEPs as

shown in Table 9.

Table 9

Number of Students with IEPs of Middle School General Education Teacher Participants

# of Students	n	%
1-5	12	37.5
6-10	15	46.88
11-15	4	12.5
16-20	0	0
Declined	1	3.13
Total Teachers	32	100.00

Research Question 1

What inclusionary practices and collaborative service delivery models do general

education middle school teachers report using with students who have IEPs? The first research question was answered by 15 survey items including seven inclusionary practices and eight collaborative strategies. The 15 survey items asked the respondents to indicate if they used specific inclusionary practices and collaborative service delivery models. The respondents were able to select one response to each of the 15 items. The response options were "always", "most of the time", "sometimes", or "never".

In regard to inclusionary practices, 15 (46.88%) respondents indicated they "always" modified curriculum, followed by 10 (31.25%) of the respondents who reported "always" targeting a student's strengths (see Table 10). "Peer mediated instruction" and "thinking skills" were the only inclusionary practices to be rated as "never" implemented when instructing students with IEPs in the general education classroom; however, only three respondents indicated not using one or both of these strategies. When the categories of "always" and "most of the time" are combined, the three most commonly reported inclusionary practices were modifying curriculum (n=28, 87.51%), communication skills (n=26, 81.25%), and targeting a student's strength (n=24, 75%).

Table 10

Inclusionary Practices Reported Currently Used by Middle School General Education Teacher Participants

Practice	Always		Most of the time		Sometimes		Never		No Response	
	n	%	n	%	n	%	n	%	n	%
Targets a Student's Strengths	10	3125	14	43.75	7	21.88	0	0	1	3.13
Communication Skills	6	18.75	20	62.50	4	12.50	0	0	2	6.25
Peer Mediated Instruction	2	6.25	13	40.63	15	46.88	1	3.13	1	3.13
Thinking Skills	9	28.13	12	37.50	7	21.88	2	6.25	2	6.25
Learning Strategies	6	18.75	12	37.50	12	37.50	0	0	2	6.25
Modifying Curriculum	15	46.88	13	40.63	2	6.25	0	0	2	6.25
Performance-based &										
Authenticate Assessments	1	3.13	18	56.25	11	34.38	0	0	2	6.25

Of the 22 respondents instructing students with IEPs, approximately 100% of respondents received instructional support in their classrooms from paraprofessionals at some point during their instruction and only 10 of the 22 or 45.45% of the respondents received support in their classrooms from a special education teacher as shown in Table 11.

Table 11

Instructional Support in the General Education Classroom

Instructional Support	n	%
Paraprofessional	12	54.55
Special Education Teacher	0	0
Other	0	0
Paraprofessional & Special Education Teacher	10	45.45
Paraprofessional & Other	0	0
Declined	0	0

In regard to collaborative service delivery models, eight (36.36%) respondents indicated they "always" use the "lead and support" collaborative strategy. This was followed by 4 (18.18%) respondents who reported "always" using "speak and add", 4 (18.18%) respondents who reported "always" using "skill grouping", and 4 (18.18%) respondents who reported "always" using "shadow teaching" (see Table 12). 'Speak and chart' and 'Parallel teaching' were the most frequently rated as "never" implemented when instructing students with IEPs in the general education classroom as shown in Table 12. When the categories of "always" and "most of the time" are combined, the three most commonly used strategies are: lead and support (n= 16, 72.72%), skill grouping (n=11, 49.99%), and speak and add (n=9, 40.91%).

Table 12

Collaborative Service Delivery Models Reported Currently Used by Middle School

General Education Teacher Participants

	Always		Most of the time		Sometimes		Never	
Strategies	n	%	n	%	n	%	n	%
Lead and Support	8	36.36	8	36.36	5	22.73	1	4.55
Duet Teaming	2	9.09	1	4.55	9	40.90	10	45.45
Speak and Add	4	18.18	5	22.73	10	45.45	3	13.64
Speak and Chart	1	4.55	2	9.09	4	18.18	16	72.73
Skill Grouping	4	18.18	7	31.81	11	50.00	0	0
Station Teaching	0	0	1	4.55	9	40.90	12	54.55
Parallel Teaching	0	0	2	9.09	4	18.18	16	72.73
Shadow Teaching	4	18.18	13	59.09	10	45.45	2	9.09

Research Question 2

Which inclusionary practices and collaborative service delivery models do

general education middle school teachers consider most effective in supporting inclusion

of students who have IEPs? The second research question was answered by 15 survey

items including seven inclusionary practices and eight collaborative service delivery

models. The 15 survey items asked the respondents to indicate how effective they

perceived the inclusionary practices and collaborative service delivery models to be when

instructing students with IEPs in the general education classroom. The respondents were

able to select one response to each of the 15 items. The response options were "very

effective", "effective", "marginally effective", "ineffective", or "I don't use this practice".

Eleven (34.38%) respondents considered modifying curriculum to be very effective. Targeting student's strengths and thinking skills were rated very effective by nine (28.13%) respondents (see Table 13). When the categories of "very effective" and "effective" are combined, the three most commonly perceived effective practices were: peer mediated instruction (n= 27, 84.38%), performance-based and authentic assessments (n = 24, 75.00%), and thinking skills (n=22, 68.75%) as shown in Table 13. Two (6.25%) respondents considered modifying curriculum to be ineffective. Peer mediated instruction, thinking skills, learning strategies, and performance based and authentic assessments were rated "ineffective" by one (3.13%) respondent (see Table 13). When the categories of "marginally effective" and "ineffective" were combined, the four least commonly perceived effective practices are: target a student's strengths (n= 10, 31.25%), learning strategies (n= 9, 28.13%) , modifying curriculum (n= 9, 28.13%), and communication skills (n= 8, 25.00%) as shown in Table 13.

Table 13

Inclusionary Practices Perceived Effectiveness by Middle School General Education Teacher Participants

Practice	Very Effective		Effective		Marginally Effective		Ineffective		I Don't Use this Practice		No Response	
	n	%	n	%	n	%	n	%	n	%	n	%
Target a Student's Strengths	9	28.13	12	37.50	10	31.25	0	0	0	0	1	3.13
Communication Skills	6	18.75	16	50.00	8	25.00	0	0	0	0	2	6.25
Peer Mediated Instruction	5	15.63	22	68.75	2	6.25	1	3.13	1	3.13	0	0
Thinking Skills	9	28.13	13	40.63	6	18.75	1	3.13	2	6.25	1	3.13
Learning Strategies	7	21.88	14	43.75	8	25.00	1	3.13	0	0	2	6.25
Modifying Curriculum	11	34.38	10	31.25	7	21.88	2	6.25	0	0	2	6.25
Performance-based and Authentic Assessments	7	21.88	17	53.13	5	15.63	1	3.13	0	0	2	6.25

The respondents reported the collaborative service delivery models of 'Skill grouping' (n = 6, 27.27%) followed by the use of 'Duet teaming' (n = 5, 22.73%), 'Speak and add' (n = 5, 22.73%), and 'Shadow teaching' (n = 5, 22.73%) as the most frequently rated as 'Very effective' when instructing students with IEPs in the general education classroom as shown in Table 14. When the categories of "very effective" and "effective" are combined, the three most commonly perceived effective strategies were: shadow teaching (n= 22, 68.75%), speak and add (n=17, 77.27%), and lead and support (n= 16, 72.73%) as shown in Table 14. 'Duet teaming' (n = 1, 4.55%), 'Station teaching' (n = 1, 4.55%), and 'Parallel teaching' (n = 1, 4.55%) were all rated as 'Ineffective' collaborative strategies when instructing students with IEPs in the general education classroom as shown in Table 14. When the categories of "marginally effective" and "ineffective" are combined, the three least commonly perceived effective strategies were: skill grouping (n = 7, 31.81%), lead and support (n = 5, 22.73%) , and station teaching (n = 4, 18.18%) as shown in Table 14. The category of 'I don't use this strategy' was selected most often for parallel teaching (n = 16, 72.73%), speak and chart (n = 14, 63.64%), and station teaching (n = 12, 54.55%) as shown in Table 14.

Table 14

Collaborative Strategies Perceived Effectiveness by Middle School General Education Teacher Participants

	Very Effective		Effective		Marginally Effective		Ineffective		I Don't Use this Strategy	
Strategy	n	%	n	%	n	%	n	%	n	%
Lead and Support	4	18.18	12	54.55	5	22.73	0	0	1	4.55
Duet Teaming	5	22.73	6	27.27	0	0	1	4.55	10	45.45
Speak and Add	5	22.73	12	54.55	2	9.09	0	0	3	13.64
Speak and Chart	3	13.64	5	22.73	0	0	0	0	14	63.64
Skill Grouping	6	27.27	9	40.90	7	31.81	0	0	0	0
Station Teaching	1	4.55	5	22.73	3	13.64	1	4.55	12	54.55
Parallel Teaching	2	9.09	3	13.64	0	0	1	4.55	16	72.73
Shadow Teaching	5	22.73	17	77.27	0	0	0	0	0	0

Research Question 3

Which collaborative service delivery models, resources, and additional information general education middle school teachers feel they need to support the inclusion of students who have IEPs? Of the 32 respondents, 10 respondents or 31.25% reported that they would not want to learn more about any of the collaborative strategies. Of these 10 respondents, four were male and six were female between the ages of 36 and 60. Eight of these ten respondents had 11-30 years of teaching experience with nine of the respondents having 1-20 years of teaching experience in DoDEA. The 10 respondents were instructing math (n=5), English (4), and science (1). The remaining 22 respondents selected 'Duet teaming', 'Speak and chart', and 'Station teaching' as the strategies that they would like to learn more about as shown in Table 15.

Table 15

Strategies for Future Staff Development

Strategy	n	%
Lead and Support	3	9.38
Duet Teaming	7	21.88
Speak and Add	5	15.63
Speak and Chart	6	18.75
Skill Grouping	3	9.38
Station Teaching	8	25.00
Parallel Teaching	6	18.75
Shadow Teaching	5	15.63
I Use All of These	1	3.13
None	10	31.25
Declined to Answer	3	9.38

As for the importance of the four resources, the respondents reported 'Collaboration with special education teacher' followed by 'Professional development' were the most important resources when instructing students with IEPs as shown in Table 16. Of the 32 respondents, 13 considered administrative support to be 'Important' as shown by Table 16.

Table 16

Importance of Resources for Instructing Students with IEPs Rated Important by Middle School General Education Teacher

Participants

Resource	Least Important		Not that Important		Important		Most Important		Declined	
	n	%	n	%	n	%	n	%	n	%
Collaboration with Special Education Teacher	0	0	3	9.38	6	18.75	14	43.75	9	28.13
Administrative Support	3	9.38	7	21.88	13	40.63	3	9.38	6	18.75
Professional Development	0	0	7	21.88	6	18.75	11	34.38	8	25.00
Other	5	15.63	1	3.13	1	3.13	1	3.13	24	75.00

The final item on the survey asked the participants to provide additional information regarding inclusion in the general education classroom. The responses were coded according to content and were analyzed for common trends. Additional information was provided by 11 participants. The general themes included: professional skills, collaboration time, instructional time, and instructional needs. Of the eleven responses, two participants expressed special education aides lack skills to allow for use of the strategies/practices and teachers are unable to balance instruction to meet the needs of students with special needs. Of the eleven responses, two participants expressed that the special education teacher lacks skills to allow for use of the strategies/practices. Of the eleven responses, one participant expressed there is a lack of time in the classroom to allow for the use of the strategies/practices. Of the eleven responses, two participants expressed there was a lack of collaboration time. Of the eleven responses, one participant expressed students with IEPs need additional instruction of material. Special education teachers need more training to share classroom responsibilities to allow for use of strategies/practices was the comment of one participant. Inadequate student support time does not allow for use of strategies/practices was reported by one participant. Modified assignments and grades allow students with IEPs to get 'Cs' without skill mastery was reported by one participant. Support from the special education teacher allows for use of strategies/practices was reported by one participant. Of the eleven responses, two participants reported support from the special education aide as beneficial in keeping students on task. Diverse instruction using many strategies is most effective was reported by on participant.

Summary

This chapter has presented the results of the survey of teachers regarding inclusive practices by middle school general education teachers. In summary, there was only a 32% response rate among teachers who were mostly females between the ages of 46 and 60. Most had 11-20 years of teaching experience and 1-10 years of teaching experience in the System. Twelve or 37.50% of the respondents instructed more than one grade level and 8 or 25% instructed a combination of classes. The majority of the respondents instructed English. Of the 32 respondents, 24 or 75.00 % instructed five classes or more. The respondents reported the majority of their class sizes were between 25 and 15 students. Over half of the respondents, 59.38% reported they had between 1-10 students with an IEP in their classes. All respondents indicated they received support in their classrooms by a paraprofessional and that only ten of the 22 (45.45%) received support from a special education teacher.

Fifteen (46.88%) respondents indicated they "always" modified curriculum and eight (36.36%) indicated they "always" use the "lead and support" collaborative strategy. The category of 'I don't use this strategy' was selected most often for parallel teaching (n = 16, 72.73%), speak and chart (n = 14, 63.64%), and station teaching (n = 12, 54.55%). Eleven (34.38%) respondents considered modifying curriculum to be very effective strategy. Targeting student's strengths and thinking skills were rated equally as very effective strategies by nine (28.13%) respondents. The respondents reported the collaborative strategies of 'Skill grouping' (n = 6, 27.27%) followed by the use of 'Duet teaming' (n = 5, 22.73%), 'Speak and add' (n = 5, 22.73%), and 'Shadow teaching' (n = 5, 22.73%) as the most frequently rated as 'Very effective' practices when instructing

students with IEPs in the general education classroom. Of the 32 respondents, 10 (31.25%) reported they would not want to learn more about any of the collaborative strategies. The respondents reported that 'Collaboration with special education teacher' followed by 'Professional development' were the most important resources when instructing students with IEPs. Of the eleven responses to the final survey item, the general themes included: professional skills, collaboration time, instructional time, and instructional needs.

CHAPTER V

Discussion

One major factor in drawing any conclusions or implications from this survey is the 32% return rate. There were several possible reasons for the low return rate, one was the eruption of the Eyjafjallajökull volcano in Iceland. The spring recess for school year 2009/2010 was April 12th – 16th. Many teachers and school personnel were abroad during this time. The volcano in Iceland erupted on April 14th and impacted travel for teachers and school personnel. Schools were left understaffed during the week of April 19th – 23rd while the teachers and school professionals made their way back from vacation. This event threw off the typical school year routine and caused extra stress to many teachers. The survey was launched on May 12, 2010. The launch of the survey was postponed as much as possible to allow teachers to settle back into their routines, but perhaps enough time was not given for the teachers to recover. In retrospect, the study may have had a better response rate if the survey had been given earlier in the year prior to the eruption of the volcano. Other reasons for the low response rate include inconsistencies in the organization of inclusionary practices across schools. Despite the limitations associated with such a low response rate, the results of the study do point to some general areas to be considered for future professional development with general education teachers who are instructing high incidence students with disabilities.

Service Delivery Models and Practices

It is evident from the survey that teachers use inclusionary practices and collaboration strategies when instructing students with IEPs in the general education classroom. The most commonly used strategies were lead and support, speak and add,

skill grouping, and shadow teaching. It can be speculated that these strategies are more common because they require little collaboration between general and special education teachers to perform. The research indicates teachers report needing more collaboration time to successfully perform co-teaching. The least commonly used strategies were station teaching and parallel teaching. This could be due to the lack of collaboration time that would be needed to coordinate such instruction. The research also indicates general education teachers are using inclusionary practices and collaboration strategies when instructing student with IEPs in the general education classroom, but some teachers are more concerned about meeting the requirements of the curriculum (Troia & Maddox, 2004). Brown, Welsh, Haegele, and Cipko (2008) indicated teachers are more likely to provide accommodations/modifications when instruction of current special education best practices is embedded into preservice general education assessment courses. Given the majority of the teacher participants reported having a Master's degree and that the majority of the Master's degrees were in Education, Special Education, and Educational Leadership, it can be speculated that many of the teachers received instruction during their personal education regarding providing accommodations/modifications.

Inclusionary Practices Considered Effective

Modifying curriculum, targeting a student's strengths, and thinking skills were reported to be the most effective. These inclusionary practices are easily implemented and student centered. Classroom teachers are able to implement these inclusionary practices without the assistance of a special education teacher or a paraprofessional. This is further supported by the comments made by some participants regarding the need for more collaboration time with the special education teacher. The research indicates some

teachers believe students with IEPs instructed in the general education classroom could not master the course content (Santoli, Sachs, Romey, & McClurg, 2008). This could imply that the students with IEPs would not perform well on assessments. Whereas, the teachers surveyed reported peer mediated instruction and performance based and authentic assessments were found to be effective in the instruction of students with disabilities. Lead and support, speak and add, skill grouping, and shadow teaching were reported to be effective with the exception of skill grouping. Skill grouping was reported to be marginally effective, but was one of the strategies used most often. It can be speculated that skill grouping is used most often because it is an easy way to group students that requires little preparation time. Station teaching and parallel teaching were reported to be effective by the teachers who used them, but due to the time required for planning, they are not frequently used.

Support Requested by Teachers

Teachers reported collaboration with the special education teacher as the most important resource for instructing students with IEPs, but teachers reported receiving classroom support from paraprofessionals more often than they received classroom support from the special education teacher. In the open ended item at the end of the survey, two teachers mentioned they felt paraprofessionals and special education teachers needed more training in order to support the students with IEPs in the general education classroom. This information seems to support a need for more special education teacher involvement in the general education classrooms in the form of collaboration with the general education teacher which is consistent with the findings of the study done by Scruggs and Mastropieri in 2001.

Limitations

  In addition to the eruption of the Eyjafjallajökull volcano in Iceland which likely impacted the low response rate, other limitations of this study arose due to internal restructuring in the System. The director had implemented several curriculum and procedural changes that negatively impacted the teachers and school personnel. This negative impact changed the climate and attitudes in the school. Teachers were tasked with learning new textbooks and implementing this new curriculum without warning. Teachers were tasked with more work and responsibility than in past years. The director proposed to increase class sizes and cut approximately 250 middle school teaching positions. This extra strain could have impacted their attitude towards special education and the additional tasks as a result of instructing students with IEPs.

  Another limitation was that inconsistencies of inclusionary practices are impacted by school structures and administrative philosophies. The resources and staffing of schools in the System are driven by the student population that specific schools serve. Schools that provide education to students with severe disabilities or low incidence disabilities also provide education for students with high incidence disabilities. The general education teachers and administrators may have a higher tolerance and more positive outlook on inclusion of students with high incidence disabilities due to exposure to more students with severe disabilities. This study was impacted by the method of collecting the information via web based survey. Survey return rates could impact the generalizability of the data. General education teachers may have difficulty identifying effective inclusion practices due to their personal belief that inclusion is not a positive

strategy. The study may also be limited by size of the sample. The results of this study will be applicable primarily to the System and unable to generalize to other settings.

Research Recommendations and Practice Implications

Interviews and observations would enhance the collection of information pertaining to the inclusionary practices in general education classrooms. Interviews would be more engaging for the respondents than online surveys. Interviews would have allowed for clarification on items and terminology. Interviews would have enabled the respondents to elaborate on key points that they felt were important. Teachers are opinionated when in regards to their teaching practices and would have wanted to discuss their views on inclusion.

Observations would have enabled the researcher to gather information about the inclusionary practices of general education teachers in the natural settings. Observations could have provided authentic examples of what the teachers are using more frequently when instructing students with IEPs. Observations would have allowed the researcher to identify teaching and classroom procedures that occur without notice. Frequently teachers will engage in best practices without being consciously aware of their actions. Interviews and observations would provide more information than a survey. Interviews and observations were not used in the methods for this study due to the time and money that would have been needed.

Practice implications seem consistent with the findings of the research reviewed. Classroom teachers are supporting the inclusion of students with IEPs by using strategies and making modifications. Classroom teachers value collaboration time with special

education teachers and would benefit from more direct contact with the special education teachers in the classroom and during collaboration time.

Conclusions

General education teachers were using inclusionary practices and collaborative service delivery models. General education teachers valued consultation and collaboration with special education teachers and condsidered it to be very important. Special education teachers were not providing most of the support in the general education classroom. Support in the general education classroom was primarily provided by paraprofessionals. The collaborative service delivery models used most often are models requiring little to no preparation or collaboration between general education teachers and special education teachers. Additional collaborative service delivery models might be implemented with the addition of collaboration time for general education teachers and special education teachers.

Appendix A

Methodological Critique Matrix

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
Study #1 Conoldi, Terreni, Scruggs & Mastropieri (1998) Teacher Attitudes in Italy After Twenty Years of Inclusion	The purpose of this study was to determine the nature of Italian teachers' attitudes toward inclusion after 20 years of inclusion policies and practice.	Survey	523 teachers in Northern and Central Italy from 10 schools	Participation rate of 95%-100%, 8 item survey with responses on a scale of 1 to 5, 1= strongly disagree and 5= strongly agree	Kaiser's criterion for factor extraction revealed 2 factors (personal acceptance and personal support) that accounted for 52.9% of the variance	Fewer than 5% of the Italian teachers expressed disagreement with the inclusion concept. Class size was not a major concern and is thought to be due to the Italian classes typically being the size of 18 total students. High school teachers were not as supported as elementary teachers similar to American teachers. Similar low opinions of the level of support received from there schools. Teachers over 40 did indicate a less supportive attitude than younger teachers. This is thought to be due to lack of inclusion during their own education. Both groups indicated that more time, training, personnel assistance, and resources

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
						necessary for inclusion to succeed.
Study#2 Scruggs, Mastropieri & McDuffie (2007) Co-Teaching in Inclusive Classrooms: A Metasynthesis of Qualitative Research	This investigation was intended to Systematically summarize and integrate the findings of all available qualitative research reports into one integrative review. It was intended to shed light on the practice of co-teaching from the perspectives of relevant research. •How is co-teaching being implemented? •What are perceptions of teachers? •What problems are encountered? •What are the benefits perceived to be? •What factors are needed to ensure success of co-teaching?	Survey, metasynthesis	32 qualitative investigations of co-teaching in inclusive classrooms with total participants of: 454 Teachers, 42 administrators, 142 students, 26 parents, and 5 support personnel	The 32 investigations were reviewed and codes were applied to pertinent information such as demographics, participants, prior experience, influence of high-stakes testing, class size, and teacher turnover. Data from the pre-existing 32 investigations were analyzed and coded using Nvivo software, freecoding of all studies resulted in 69 themes.	Category analysis, contextual analysis, and identified relationships among categories were implemented between at least two coders. Four super ordinate categories were created: expressed benefits of co-teaching, expressed needs for success in co-teaching, special and general education teacher roles in co-teaching, and instruction delivery in co-taught classes.	The metasynthesis methodology resulted in the following program characteristics for successful co-teaching: planning and planning time for co-teaching, administrative support, personal compatibility between the co-teaching professionals, volunteerism, & training
Study#3 Berry (2007) Novice	This study examines teachers' beliefs about fairness vis-à-	Exploratory, qualitative	47 general education graduate	Student journal entries were voluntarily entered into a database for analysis on	Coding resulted in five main themes: general response to the concept of fairness	Teachers' acceptance of inclusion can be impacted through pre-

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
teachers' conceptions of fairness in inclusion classrooms	vis inclusion, a little reported but in this researcher's view, crucial component of teacher attitudes toward student with disabilities. What do novice teachers have to say about fairness?		students wrote 8 to 10 journal entries over the course of a semester resulting in 185 text units	'fairness'. The journal entries were reviewed to clarify that the word had been used in the applicable context.	(complex, important), definitions of fairness, perceptions of fairness, classroom applications of fairness, concerns about negative effects.	service education that offers new models for thinking about fairness and inclusion. It is important that educators confront and alleviate fears about and obstacles to inclusion that may be related to perception of fairness understand fairness.
Study#4 Fried (2007) Teachers' Perceptions and Attitudes Toward Special Education and Full Inclusion	Is there a relationship between teachers' perceptions and attitudes toward special education and full inclusion and their willingness to participate in full inclusion?	Survey	62 general education secondary teachers at two sites participated	Participants filled out the survey independently or met with the author	Survey data was entered into a database in pairs: (a) teachers' perceptions and attitudes toward special education and full inclusion, which were sorted by subject taught and years of experiences and gender; and (b) teachers' willingness to participate in an inclusive setting. A Pearson product moment- correlation was performed on the z scores for the matched pairs to measure the linear correlation between the two variables.	Teachers felt that inclusion needed more collaboration with colleagues to be done well. Some teachers felt that the pace of the gen. ed. class was not right for inclusion. Teachers felt that instructional aides were important to the success of inclusion. The fewer years of teaching experience showed an increase in tolerance
Study#5 Marsh (2008) Effects of Labeling:	How do general curriculum teachers feel towards the inclusion of students with special needs	Qualitative research study	17 teachers at two schools	Interview/Survey/ Observations	Answers and field notes were reviewed for common traits	Teachers were concerned that they were able to provide the most appropriate instruction in the

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
Teacher Perception	into their classrooms?					general education classroom. Some teachers fear that students will not get what they will need for later in life.
Study#6 Zigmond and Jenkins (1995) Findings from Three Multi-Year Studies	The purpose of the study was to investigate if pull-out special education instruction was necessary for student success. Is inclusion yielding satisfactory student growth?	Quantitative, single-subject	6 schools, 145 students (Pittsburgh: 95 in 4 schools/gr 2-6, Washington: 13 in gr 2-6,Vanderbuilt: 45 in gr 5-6)	School restructuring with the use of in-services to teach faculty how to instruct difficult students, trainings were held consistently and often, progress of students were monitored The three university projects' results were reviewed and compared for the reader gains and prevention of the achievement gap.	The autumn and spring scores of the Basic Academic Skill Samples (BASS) for the students with learning disabilities were analyzed for reading gains. Gains that surpassed the standard error of measurement were judged to indicate that students made real growth. Half of the students with disabilities fell in this range. The mean achievement gains for each grade level within each site was calculated and compared to the achievement gain of each student with learning disabilities to identify the extent to which education in the restructured schools prevented further widening of the achievement gap.	General education classroom instruction produces unacceptable and undesirable outcomes for many students with special needs
Study#7 Idol (2006)	Examine and describe how special education services were provided in	Qualitative	Eight schools: 4 elementary, 2 middle, 2	Interviews, records review, & observations were conducted. Quantitative data was reported with	A four-point Likert scale was used for the interview responses. Percentage data for the mean response from	Inclusion is strongly supported. General recommendations: more training, support,

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
	four elementary schools and four secondary schools. How was inclusion being carried out?		secondary 286 teachers, 8 principals & 2 assistant principals	frequencies and percentages. The interviewer recorded the qualitative responses which were organized into seven categories: school district policies, inclusion, modifications, special education teachers, instructional assistants, students' behavior and statewide test scores.	each of the eight schools were compared in two parts; elementary & secondary.	and collaboration, statewide testing results for students with disabilities should be examined separately, self-contained classrooms are viable for some students, participate in more inclusion, closely monitor sped. referrals, teach consulting teaching, cooperative teaching, and instructional assistants.
Study#8 Brown, Welsh, Haegele, & Cipko (2008) The efficacy of embedding special education instruction in teacher preparation program in the United States	Does embedding instruction regarding adaptations to classroom assessments in a general education evaluation and measurements course increase the knowledge and competency of preservice teachers in describing the nature of learning disabilities and appropriate adaptations for teaching and assessment?	Self-report Survey	208 teacher candidates for elementary, secondary, early childhood and special education	A pretest-posttest design was used. Control group did not receive the supplemental instruction on special education issues.	Pretests and posttests were analyzed	Results indicated that embedded instruction significantly increased teacher candidate's knowledge of inclusion terminology and assessment adaptations, and improved confidence levels in meeting the needs of faculty in the content area adequate professional development opportunities to ensure that current special education best practices are embedded across the

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
	Does embedding instruction of adaptations to classroom assessments in a general education evaluation and measurements course (a) increase the confidences of and (b) effect attitudes of preservice teachers toward meeting the needs of students with learning disabilities?					curriculum of teacher candidates.
Study#9 Leyser & Romi (2007) Religion and attitudes of college preservice teachers toward students with disabilities: implications for higher education	The purposes of this study were: To examine attitudes toward inclusion of a large sample of Jewish and Arab prospective teachers To examine whether there are attitudinal differences among these prospective teachers	Survey	1,145 prospective teachers from six national/relig ious groups in eleven colleges in Israel	Opinions Relative to Integration Scale (ORI) was administered	Results of the ORI were reviewed	This study found that regardless of national or religious affiliation, teacher candidates expressed support for inclusion. There were two major concerns: uncertainty whether teachers have the necessary knowledge and instructional skills for working in inclusive classrooms, & concern about behavior problems and

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
	representing six religious affiliations					possible negative impact on classroom peers. Results indicated a strong support for a wide range of educational options and services.
Study#10 Zigmond, Naomi (1995) An exploration of the meaning and practice of special education in the context of full inclusion of student with learning disabilities	The purpose of the research was to examine and carefully describe the educational programs of students in integrated models across the country. They explored the meaning of special education in programs that are providing full integration for student with LD.	Qualitative, descriptive	5 fulltime, mainstreaming models that serviced LD elementary students located in Virginia, Pennsylvania, Minnesota, Kansas, and Washington.	2 day visits to all sites to examine the educational experience of two students with LD, one primary-grade student and one intermediate-grade student. Observations were done during reading, mathematics, science, social studies, and/or language arts instruction for 2 consecutive days. Narrative notes were taken using 5-minute intervals to describe the students. Semi-structured interviews with the students, the parents, and teachers (sped & gen), principal using five interview protocols.	Individual case descriptions were revised and a cross-case analysis was completed using a matrix to display data for each of the five sites in the four categories: context for inclusion, model of inclusion, role of special education teachers, and educational experiences of students with LD. Based on the data across sites, they identified common themes, unique characteristics, and draw conclusions about what constituted *special education* in full-inclusion models.	Specially designed instruction, individualized, offered to students in these models was fulfilling PL 94-142. Successful inclusion reform can occur with strong commitment to change, with leadership at the building level, with training, with preservation of extant special education resources, and with cooperation from parents, children, and teachers.
Study #11 Troia & Maddox (2004) Writing Instruction in Middle	Teacher rating scales will be used to determine teacher knowledge, teacher values, and contextual demands.	Quantitative (Teacher rating scales) & Qualitative (Focus groups)	18 teachers total (1st focus group: 8special education teachers & 2nd focus	Participants completed Teacher Writing Orientation Scale (Graham, Harris, MacArthur, et al., 2001), Teacher Efficacy Scale for Writing (Graham, Harris, Fink, et al., 2001), &	Special education teachers' five major themes: Student motivation, effective teaching methods, contextual limitations, effective adaptations/accommodation,	General & special educators valued a balanced approach to writing instruction that included form and function. General and special

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
Schools: Special and General Education Teachers Share Their Views and Voice Their Concerns	Goals for teacher focus groups: identify the teaching practices of middle school teacher in both general and special education in the domain of written expression, determine the salient local exigencies in teaching writing at the middle school level, & examine the attitude, beliefs, and theoretical orientation of focus group participants with regard to teaching writing		group: 10 general education teachers)	Teacher Writing Practices Scale (Graham, Harris, Fink, et al., 2001). Rating scales were reviewed for significance. Focus groups were asked open ended questions that may have been followed by additional questions. Focus groups' answers were audio taped and transcribed. Answers were coded. Coding discrepancies were reconciled through deliberation.	& barriers to successful inclusion. General education teachers' three major themes: writing across the curriculum, effective instructional methods, & barriers to teaching and learning.	education teachers of writing instruction at the middle school level need: collaboration time for special education & general education teachers, professional development in writing instruction, & close examination of the curriculum.
Study#12 Rea, McLaughliin, & Walther-Thomas (2002) Outcomes for Students With Learning Disabilities in Inclusive and Pullout	What is the relationship between placement and outcomes?	Quantitative & Qualitative	All of the students in the 8th grade with learning disabilities (LD) in two middle schools in the same county. Resulting in 58 total students with LD.	Student data for school performance, achievement, behavior, and attendance was archival. Program information was collected about the school district and each of the two middle schools (program, IEP, and teacher variables). Student data was grouped into demographics (student & family data) and outcomes (grades, test scores, &	Ttest or chi-square analyses conducted on student demographic data established comparability of the groups in terms of chronological age, gender, ethnicity, socioeconomic status, mother's education level, estimated cognitive abilities, years receiving special education services, and years in the current school district. Existing	Students with learning disabilities educated in inclusive classrooms when compared to students with learning disabilities educated in special education classrooms: earned higher grades, achieved higher or comparable scores on standardized tests, committed no more

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
Programs				behavioral data).	service delivery models were verified through teacher planning documents, supervisor observation notes, students' IEPs, teacher and student schedules, and team meeting minutes. Program variables, including number and nature of IEP goals and objectives, degree of classroom accommodation, and amount of special education service delivery that students in the both groups received were reviewed and compared. Student outcomes (academic achievement, behavior, and school attendance) were measured for both groups.	behavioral infractions, & attained higher attendance rates.
Study #13 DeSimone & Parmar (2006) Middle School Mathematics Teachers' Beliefs About Inclusion of Students with	Investigate middle school general education mathematics teachers' beliefs and self-perceived knowledge regarding teaching students with learning disabilities (LD) in inclusive classrooms, and to gain an	Qualitative: survey	228 middle school mathematics inclusion teachers from 19 different states	*Survey of Teaching Mathematics to Student With Learning Disabilities in Middle School* (DeSimone & Parmar, 2004) was mailed to 361 middle school mathematics inclusion teachers nationwide. 228 teachers responded (63% return rate). 42 teachers volunteered for follow-up interview. 26 were selected for a	Chi-square tests of significance indicated that: teachers in schools with higher levels of administrative support and availability of ancillary support services were significantly more supportive of inclusion, teacher in schools with more support felt that inclusion was more effective than those in less supportive	Findings from the survey and interviews: limited understanding of mathematical learning needs of students with LD, need for teacher collaboration, & inadequacy of pre-service and in-service teacher preparation for inclusion.

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
Learning Disabilities	understanding of teacher perspectives on the application of inclusion in their own schools.			purposive sample. Interview consisted of eight open-ended questions. Telephone interviews were not audiotaped, but data was taken during the interview via laptop.	schools, teachers with high levels of support in their schools felt most comfortable adapting instruction to meet student needs for all of the specific disability characteristics, & the most significant factor in teacher comfort is the presence of administrative support and support services.	
Study #14 Mageria & Zigmond (2005) Co-Teaching in Middle School classrooms Under Routine Conditions: Does the Instructional Experience Differ for Students with Disabilities in Co-Taught and Solo-Taught Classes?	Does the Instructional Experience Differ for Students with Disabilities in Co-Taught and Solo-Taught Classes?	Qualitative, descriptive	11 middle schools co-taught classrooms, grades 5-8, located in four Western New York middles schools, within three districts. 8 co-teaching pairs(8 special education teachers & 8 general education teachers). 18 students with disabilities	Instructionally relevant information was retrieved from student IEPs. Students' disabilities were classified (15 LD & 3 OHI). 84 observations were conducted in 11 classrooms. Each target student was observed for 10 seconds every 3 minutes during a 45-minute class period. Classrooms were observed 4 times under each condition (co-taught vs. solo-taught) within the space of 2 to 3 weeks. 80 % reliability was achieved in 2 consecutive observations prior to data collection. Researchers coded instructional differences in co-taught vs. solo-taught classrooms.	Paired t tests were used to contrast the solo- and co-taught interactions. Significant difference was found: One-to-one instructional interactions occurred 2.2% in co-taught vs. 1% in solo-taught classrooms. Students with disabilities had more interaction with general education teachers in solo-taught classrooms. No significant differences for the variables: students working alone, grouping of students, on-task behavior, students interacting with other students in the classroom, whole class content instruction, directions provided to the	Students received more individual instruction in co-taught classrooms. When special education teachers were in the classroom, general education teachers interacted less with students with disabilities.

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
			participated, 5-15 per class.		whole class, directions provided to the individual student, or student participation.	
Study #15 Santoli, Sachs, Romey, & McClurg (2008) A Successful Formula for Middle School Inclusion: Collaboration, Time, and Administrative Support	The purpose of the survey was to gain information to be used to provide the basis for professional development that would be conducted in the school and add to the professional literature in the area of inclusion.	Survey	56 educators from an urban middle school in the southeastern United States. 64% held a general education certificate, with the remaining 36% consisting of special education teachers, paraprofessionals, and administrator.	The attitudinal survey was adapted from a survey by Luseno (2001). The survey was adapted for general education teachers and special education teachers. The voluntary survey was administered during a faculty meeting.	Chi-square tests were used to determine significance at the .05 level: attitude toward inclusion had a significant relationship with time to consult with other teachers regarding students with disabilities, time to attend meetings regarding students with disabilities, and time to educate student with disabilities in the general education classroom. 98.2% of teachers were willing to make adaptations for students with disabilities, but 76.8% of teachers did not believe that students with disabilities could be educated in the general education classroom regardless of the level of their disability 80% of teachers believed that students with disabilities lacked the skills to master the general education curriculum, but 78% felt that they knew various teaching strategies	Teachers are willing to make adaptations for students with disabilities and felt that they had the skills to make adaptations, but did not believe that most students with disabilities had the skills to master general classroom course content. Teachers did not feel supported in the area of time for collaboration, attending meetings, and time to educate the students in the classroom.

Study	Rationale/Purpose/ Research Questions	Design	Sample/ Participants	Methods/ Procedures	Analyses	Results
					for helping students with disabilities master new content.	

Appendix B
General Education Inclusionary Practices

A Survey of General Education Inclusionary Practices

The purpose of this survey is to obtain information from general education teachers about the practices they use when instructing with students with disabilities. This information will be used to identify which inclusionary practices and collaborative service delivery models are currently being used and found to be effective.

All information obtained through this survey will only be reported in the aggregate and in no instance will any information that might indentify an individual be reported. While your participation is totally voluntary, I hope that you will complete this brief survey as it will help to better understand how general education teachers are teaching students with disabilities.

1. Your participation indicates that:

you are at least 18 years of age, the research has been explained to you; your questions have been fully answered; and you freely and voluntarily choose to participate in the is project.

2. Do you agree to participate in this survey?

Yes

No

Background Information

1. Gender

Male

Female

2. Age

22-35

36-45

46-60

Over 60

3. Which of the following degrees do you have?

Bachelor's

Master's

Doctorate

4. Please specify your major(s) for each of the following degrees that you hold:

Bachelor's

Master's

Doctorate

Other (Specify degree and major)

5. How many years have you been teaching?

1-10

11-20

21-30

31-40

41 or more

6. How many years in DoDEA?

1-10

11-20

21-30

31-40

41- or more

7. What subject(s) do you currently teach? (Check all that apply.)

Math

English

Social Studies

Science

8. What grade level(s) do you currently teach? (Check all that apply.)

6

7

8

9. How many total class periods do you instruct?

1 or 2

3

4

5

6

10. What is the enrollment of your largest class?

10

15

20

25

30

11. What is the enrollment of your smallest class?

10

15

20

25

30

12. Across all of the classes you teach, how many of the students have IEPs?

1-5

6-10

11-15

16-20

21-25

26 or more

General Education Instructional Practices

This section of the survey asks about the instructional practices used in your classes
that have students with IEPs.

1. Overall, when instructing students who receive special education

services, how often do you 'target a student's strengths'? (Such as:

allowing students to complete assignments/tests/quizzes orally, in groups, or with the

completion of a project.)

Always

Most of the time

Sometimes

Never

2. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

3. Overall, when instructing students who receive special education

services, how often do you instruct in 'Communication Skills'? (Such as: listening,

speaking, reading, and writing are part of the lesson planning.)

Always

Most of the time

Sometimes

Never

4. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

5. Overall, when instructing students who receive special education

services, how often do you use the strategy of 'Peer-mediated Instruction'? (Students

share their skills in a structured manner to promote learning.)

Always

Most of the time

Sometimes

Never

6. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

7. Overall, when instructing students who receive special education

services, how often do you use the strategy of 'Thinking Skills'? (Lesson planning

includes analyzing, synthesizing, and evaluating as expectations for student learning.)

Always

Most of the time

Sometimes

Never

8. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

9. Overall, when instructing students who receive special education

services, how often do you use the strategy of 'Learning Strategies'?

(Graphic organizers or Cornell notes)

Always

Most of the time

Sometimes

Never

10. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

11. Overall, when instructing students who receive special education

services, how often do you use the strategy of 'modifying curriculum'?

Always

Most of the time

Sometimes

Never

12. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

13. Overall, when instructing students who receive special education

services, how often do you use the strategy of 'performance-based and authentic

assessments'?

Always

Most of the time

Sometimes

Never

14. In your opinion, how effective are these strategies?

Very effective

Effective

Marginally effective

Ineffective

I don't use these strategies

General Education Collaborative Practices

This section of the survey asks about the strategies for collaboration with special

education staff.

1. Do you currently instruct a class that is supported by a special education teacher or a special education aide?

Yes

No

2. When instructing class with special education support, who is providing this support? (Check all that apply.)

Paraprofessional

Special Education Teacher

Other

3. In general, when instructing class with the special education teacher or special education aide, do you use the strategy of 'Lead and Support'? (General educator instructs and special educator contributes.)

Always

Most of the time

Sometimes

Never

4. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

5. Overall, when instructing class with a special education teacher or special education aide, do you use the strategy 'Duet Teaming'? (Teachers contribute

equally.)

Always

Most of the time

Sometimes

Never

6. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

7. Overall, when instructing class with a special education teacher or special

education aide, do you use the strategy 'Speak and Add'? (One teacher leads and the

other adds explanations/clarifications.)

Always

Most of the time

Sometimes

Never

8. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

9. Overall, when instructing class with a special education teacher or special

education aide, do you use the strategy 'Speak and Chart'? (One teacher leads and the other teacher charts, graphs, or outlines.)

Always

Most of the time

Sometimes

Never

10. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

11. Overall, when instructing class with a special education teacher or special education aide, do you use the strategy 'Skill Grouping'? (Grouping students according to individual needs.)

Always

Most of the time

Sometimes

Never

12. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

13. Overall, when instructing class with a special education teacher or special education aide, do you use the strategy 'Station Teaching'? (Setting up stations to target specific skills taught by both teachers.)

Always

Most of the time

Sometimes

Never

14. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

15. Overall, when instructing class with a special education teacher or special education aide, do you use the strategy 'Parallel Teaching'? (One teacher provides one segment of the instruction and the other teacher provides the next segment.)

Always

Most of the time

Sometimes

Never

16. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

17. Overall, when instructing class with a special education teacher or special

education aide, do you use the strategy 'Shadow Teaching'? (One teacher instructs and

the other teacher provides guided practice and individual or group assistance.)

Always

Most of the time

Sometimes

Never

18. In your opinion, how effective is this practice?

Very effective

Effective

Marginally effective

Ineffective

Resources

In this section of the survey, I would like your opinion about resources that would

assist in the instruction of students with IEPs.

1. Which of the following strategies that you are not currently using,would you like to

learn to use? (Check all that apply.)

Lead and Support

Duet Teaming

Speak and Add

Speak and Chart

Skill Grouping

Station Teaching

Parallel Teaching

Shadow Teaching

2. Please rank the following resources in terms of their importance to you in

instructing students with IEPs.

Least Important   Not that Important   Important   Most Important

Collaboration time with

special education

teacher

Administrative support

Professional

Development

Other

3. Please, provide any additional information.

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