TEACHING THE STRUGGLING ADD/ADHD STUDENT:
THE CONTRAST BETWEEN BEST PRACTICES IDENTIFIED BY RESEARCHERS TO
BE SUCCESSFUL AND WHAT PRACTICES TEACHERS IMPLEMENT WITH
STUDENTS IN THE PUBLIC SCHOOL CLASSROOM

By

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ABSTRACT

Students who are diagnosed with ADHD spend the majority of the school day in the regular education classroom. This research looked at best practices being used in the classroom and how effective teachers perceive those interventions to be. The questions of what are the attitudes of teachers towards students with ADHD, how do teachers feel about the effectiveness of specific interventions, and what interventions identified in research as effective are not being used by teachers. Additionally, there was qualitative section collaboration, co-teaching and differentiating instruction. One hundred and forty-nine teachers completed the survey. The respondents indicated, in general, students with ADHD learn best in the regular education classroom; most interventions are effective, but each student is different and may need different interventions; and teachers were not using interventions, taking extra time and planning. Recommendations for overcoming hindrances and obstacles are offered. Furthermore, teachers indicated there were hindrances to co-teaching and collaboration with both special education and school counselors. Furthermore, a number of additional interventions for differentiating instruction were gathered from respondents.

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Chapter One: Introduction

<u>The Research Problem</u>

As an exploratory teacher (related arts or elective teacher[1] in some schools), I often have students in my classes who are identified as having hyperactivity and inattentiveness. Consequently, these students struggle to understand the concepts presented and show difficulty in completing various activities. Exploratory classes use a variety of learning methods including problem-solving, project-based, hands-on activities, and cooperative learning. Often students with attention deficit disorder (ADD) and attention deficit hyperactivity disorder (ADHD) find it difficult to focus and are unable to remain on task. As well as frustrating for students, it is perplexing for teachers to extend more time on behavior management for a few students than to concentrate on the general activities for the entire day. The goals for teachers are not to remove troubled students from the exploratory class, not to accept frequent disruptive behaviors, and not to pass students forward based on compliance alone; rather, teachers strive to differentiate learning based on individual ability. I want my students to succeed in my class, as well as in their general education classes. In order to reach this particular ADHD population, my study explores strategies that are identified as "best practice" and further examines what teachers purport to use with students diagnosed with ADHD. Confounding this issue, in a pilot study, I discovered that although research findings describe, "best practices," elementary teachers do not appear to use many of the best practices identified through research and proven to be effective. Furthermore, to qualify for special education services, students must have

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[1] Exploratory classes have students randomly assigned to the class; Elective classes allow students to choose the classes they want; Related Arts classes include, but not limited to, art, music, PE, technology, and media/library classes.

an additional specific disability, which typically is learning disabled, emotionally disturbed, or bipolar disorder (May, 2009). Research data show, on average, students with ADD/ADHD will spend 80% of their time in general education classrooms; this *includes the exploratory classrooms.* As is the case in my exploratory classroom, students with ADHD are without any special education support (Reid, Maag, Vasa, & Wright, 1994). Therefore, the current study focuses on the contrast between research-based "best practices" described to be successful with students diagnosed with ADD/ADHD as compared with strategies teachers are actually implementing in their classrooms. Research questions will include: 1. What are the best practice interventions, methods, and strategies found in the literature? 2. What interventions, methods, and strategies are general and special education teachers actually using in the classroom? 3. What best practices identified in the research are teachers actually using and why? and 4. What best practices identified in the research are not being implemented in the classroom and why?

<u>Review of the Existing Literature</u>

Many studies describe students with ADD/ADHD. Gardill and DuPaul (1996) identified effective strategies when assisting students with ADD/ADHD. Effective strategies included structure, physical arrangement, varied presentation formats and materials, brisk instructional pace, use of cues and prompts, attention checks, brief academic tasks interspersed with passive tasks, and peer tutoring. When used in combination, these strategies appear to clearly have a positive impact progress for students with ADD/ADHD.

Nowacek and Mamlin (2007) conducted a study to address the modifications general education teachers were making for students with ADHD. Their findings revealed, while general education teachers were aware of the characteristics of students with ADHD, they were making few classroom modifications for those students. However, where modifications were being made, the teachers were simply getting-by without advance planning for specific modifications and interventions. Moreover, purposeful differentiated instruction was not being used.

Deficiencies in Current Research

The existing literature has resulted in a wealth of overall information on ADD/ADHD. However, none specifically addressed students with ADD/ADHD with the additional characteristics of middle school, strategies, and exploratory teachers. Few studies examined teachers' perspectives on working with students with ADD/ADHD. Finally, no studies were found to address discrepancies between best practices for students with ADD/ADHD and teacher implementation.

Significance of Study

In order to contribute to the paucity of data related to helping students with ADHD in the regular classroom, the current mixed method research project describes the relationship between public school teachers' actual classroom practices and their understanding of research-based proven effective learning strategies when working with students with ADHD.

The Purpose Statement

The overall purpose of this study is to recognize the contrasts between best practices researchers identify to be successful when working with students with ADHD

and what strategies teachers actually implement in the classroom. An additional purpose is to determine what methods, interventions, and strategies exploratory teachers may use to most enable students with ADD/ADHD to succeed.

The literature review segment will contain two related sections. The first describes the current state of students with ADD/ADHD in public school education including student characteristics, the law and Individuals with Disabilities Education Act (IDEA), and the role and potential influence of special education, inclusion, school-based strategies, and teachers' attitudes/perspectives may assume. The second section describes evidence-based classroom strategies, methods and interventions.

A survey segment will be used to determine what regular educators feel are the most effective interventions, strategies, and methods to use with students with ADD/ADHD. Regular education teachers will compare the effectiveness of certain interventions, strategies, and methods used in effectively teaching students with ADD/ADHD. The independent variable for this study is defined as the educator. The dependent variable is defined as a student with ADD/ADHD. The intervening variable is defined as interventions, strategies, and methods used in education. Regular educators (independent variables) influence and many times cause the success, or failure of students with ADD/ADHD (dependent variable) depending on the type, frequency and consistency of specific, planned, and differentiated instructional interventions, strategies, and methods (intervening variables).

The results of the literature review and survey data will then be used to describe the relationship between best practices researchers identify to be successful and what practices teachers are actually implementing in their public school classrooms. The

implications from the current study consider what specific differentiated interventions, strategies, and methods, when used consistently and purposely planned, result in higher academic achievement for students with ADD/ADHD in the exploratory class. Consequently, findings will support general education teachers in providing research-based strategies for students with ADHD.

Important Definitions

Accommodation – "altering the environment or expectation to accommodate the
   disability" (Schultz et al 2011, pp. 258-259).

Attention Deficit Disorder (ADD) – for this paper, inattention and impulsivity.

Attention Deficit Hyperactivity Disorder (ADHD) - inattention, hyperactivity, and
   impulsivity with "symptoms so severe that the person has difficulty functioning in a
   variety of settings" (Salkind, 2006, p. 136).

Co-teaching – (often called collaborative teaching, teaming, team teaching) "Two or
   more professionals with equivalent licensure or status are co-teachers, one who is a
   general educator and one who is a special educator or specialist" (Friend & Hurley-
   Chamberlain, 2011, Is Co-Teaching Effective? para. 3).

Different instruction – "meets the needs of ALL students by responding to their varying
   levels of background knowledge, skill readiness, language acquisition, learning
   styles, interests, and response modes" (Voytecki, 2001, Inclusion of Students with
   Exceptionalities section, para. 2).

Intervention – the act of resolving undesirable aspects or "remediating the disability"
   (Schultz et al. 2011, p. 258).

Methods – for this discussion, a method is defined as a technique or practice for

educating students; a specific plan is outlined and implemented.

Strategies – Defined for this discussion as a plan or pattern identified to achieve the

goal for educating students.

Chapter 2: Literature Review

This chapter examines peer reviewed articles related to teaching students with ADD/ADHD. Divided into two sections, the first, examines a review of literature containing background information regarding ADHD in schools. This includes student characteristics, the law and IDEA, the role of special education, inclusion, school-based strategies, and teachers' attitudes/perspectives. The second part of this review of the literature looks at specific classroom strategies, methods and interventions. Several articles in section one contain classroom strategies and to avoid repeating, will not be added in section two. These articles, nonetheless, will be combined and included in the summary section.

Section One: The State of Students with ADD/ADHD in School

Inattention, hyperactivity, and impulsiveness are general characteristics of students with ADD/ADHD. The studies in this section go beyond these typical characteristics and explore additional identifying criteria found from the research regarding the law, demographical characteristics, rating scales, social skills, achievements, and transitions.

In 1975, Congress passed the Education for All Handicapped Children Act, and then in 1990 Congress expanded the provisions in the Individuals with Disabilities Education Act (IDEA). In 2004, the IDEA was reauthorized and expanded once more. The current law includes language that states students with a disability are eligible for special education services including "specific learning disabilities…and who, by reason of, needs special education and related services." The disability must "adversely affect"

student performance, and cannot be attributed to "environmental, cultural, or economic disadvantage."[2]

May (2009) looked at the problem of students diagnosed with Attention Deficit Hyperactivity Disorder obtaining special education services under IDEA. Using the law, the court's interpretation, and schools implementation, May outlined a three-prong test requiring "a student to have an enumerated disability, which adversely affects his educational performance, and by reason thereof, needs special education" (p. 178). While the courts have generally determined that ADD is covered in IDEA as a "specific learning disability," they have been reluctant to rule in favor of a parent and force a school system into providing special education services for these students. In one case, the court ruled the student "did not need special education services *by reason of* his ADHD."[3] In another case[4], the school system showed the student's ADHD *could* have been caused by the student's former drug use and economic status, therefore, the school system could deny services under IDEA. May believes these court rulings have a serious social consequence and fail to apply IDEA as Congress intended (p. 195).

Reid, Maag, Vasa, & Wright (1994) examined populations of students diagnosed with attention deficit-hyperactivity disorder. These researchers reviewed records from 34 schools to identify students labeled as ADD/ADHD. School nurses noted the students who take medication for ADHD; school psychologists reviewed Individual Education Programs (IEPs); and teachers reported those students whose parents had told them their child was diagnosed with ADHD. From these sources, 136 students were

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[2] PL 108-446: The Individuals with Disabilities Education Improvement Act of 2004, 20 USC 1401.

[3] Mr. I. *ex rel.* L.I. v. Maine Sch. Admin. Dist. No. 55, 480 F.3d 1, 13 (1stCir. 2007)

[4] N.C. *ex rel.* M.C. v. Bedford Cent. Sch. Dist., 473 F. Supp. 2d 532 (S.D.N.Y.2007).

identified as diagnosed with ADHD. The results looked at gender, grade levels, ethnicity, and disabilities. Overwhelmingly, there were more boys than girls at almost a nine to one ratio. Student distribution ranges from about 18 in 1st grade, peaking at third grade with 28, then a decrease was noted back to 18 by sixth grade. Ninety percent were Caucasian, a full three percentage points above the district's 87.6%. Whereas the African American ADHD population was 5.2%, lower than the districts 5.8%. More than half of those identified received special education services for behavior disorder. Almost one in three students received services for a specific learning disability. Eighty percent of the students in this study spent most of their school day in the general education classroom. It was further noted that often, "Teachers feel ill-equipped to deal with students with ADHD" (p. 133). Because of this latter key finding, the researchers concluded the study by recommending that general education teachers require more knowledge of ADHD and techniques for managing ADHD behavior in the classroom.

Mellor (2009) looked at the difference between students with ADD/ADHD and students who are just seeking attention. He found in some ways, they are similar, but in many more ways, they are different. Attention seeking, Mellor says, is using persistent inappropriate behaviors in, often irritating, ways to gain the attention of others, usually adults. ADD/ADHD is characterized as inattention, over activity, and impulsivity. Inattention here refers to a cognitive processing medical condition. Mellor provides five suggestions for recognizing attention seeking behaviors: 1) what is the function of the behavior or what is being gained? 2) are the behaviors uniquely attention seeking? 3) is the response of the child positive when the adult gives them attention? 4) is the student

displaying good social and language skills away from competing peers? and 5) is the behavior being displayed in one setting only?

Research findings indicate boys demonstrate a higher rate of ADD/ADHD diagnosis than girls (Baue`rmeister et al. 2007, Bruchmüller, Margraf, & Schneider, 2012; Jackson, & King, 2004). Reid, Maag, Vasa, & Wright (1994) describe the ratio was 89% boys with only 11% girls (p. 120). Kats-Gold and Priel (2009) determined these youths with ADHD have greater emotional understanding social skills impairments than their typical peers. The researchers believed emotional understanding and social skills were linked. Male students with ADHD cannot verbally express feeling related words or define complex emotions, and this may lead to more acting out, inappropriate behavior, and lack of social skills.

Adams, Kelley, and McCarthy (1997) described the internal consistency of an assessment tool entitled *The Adolescent Behavior Checklist* (ABC). ABC is a self-reporting behavior rating scale developed to include current ADD/ADHD diagnostic criteria, ensure adequate sampling of related problem behaviors, and provide age-appropriate wording for readability and understanding by children. The scale rates six factors: conduct problems, impulsivity/hyperactivity, poor work habits, inattention, emotional lability, and social problems. Findings support the view regarding ABC as a reliable and valid; furthermore it may prove to be a valuable tool for measuring the adolescents' perception regarding his or her own struggles with ADD/ADHD.

Another area for identifying students with ADD/ADHD is associated with academic success. Achievement Goal Theory is one of the leading motivational

frameworks for understanding student success independent of cognitive ability. However, minimal research has been conducted with regard to achievement goals of students with ADD/ADHD. Barron, Evans, Baranik, Serpell, and Buvinger (2006) explored what the achievement goals were for students with ADHD. Researchers concluded students with ADHD, most likely, had a Mastery Goal Orientation wherein their purpose was to obtain competence in their coursework; next was Performance-Avoidance Orientation where their purpose was to avoid demonstrating incompetence in their coursework; and lastly, was the Performance-Approach Orientation. In this last approach, students wanted to demonstrate their competence in coursework. While the mastery goal remained high across time, performance-avoidance became less of a motivational factor. Some students are often motivated simply by not wanting to be the worst (p. 155). Pintrich and Schunk (2002) believe any motivation is better than no motivation at all.

Daley and Birchwood (2010) describe the relationship between ADHD and academic performance. Several key factors arose out of their research. First, ADHD symptoms affect individuals throughout their entire life. Academic underperformance appears to be the result of deficits in executive functioning. There are numerous classroom-based interventions to support and help students with ADHD to succeed. Daley and Birchwood suggested several research-based academic interventions including peer and parent tutoring, task/instructional modifications, classroom functional assessment procedures, self-monitoring, strategy training, and homework focused interventions.

Transition to middle school can be a difficult time for students with ADD/ADHD. While the hyperactive/impulsive symptoms may decline during adolescence, any difficult period in a child's life can exacerbate those symptoms. Langberg, Epstein, and Altaya (2008) examined the manifestations of these symptoms during transition to middle school. Students without ADD/ADHD were found to have little difficulty transitioning to middle school. However, those students with ADD/ADHD had an interruption of the typical decline of symptoms seen in adolescence. These students continued to exhibit the same amount of impulsive behavior, inattention and hyperactivity seen in the previous year of elementary school.

Kilanowski-Press, Foote, and Rinaldo (2010) surveyed teachers regarding their inclusive practices within classrooms. The most predominant model found to be used in general education inclusion classrooms was the utilization of a consultant special education teacher followed by volunteer support, and the use of educational assistants. The research also concluded other forms of support including small group instruction, one to one support, and planning were "push-in special education practices" and the "antithesis to the objectives of inclusion" (p. 53). However, evidence-based research findings indicate co-teaching to be one of the most beneficial inclusion models and one most reflective of representing the principles of inclusion. This includes placing students in the least restrictive environment. Yet, the researchers found it was the least utilized method of instruction.

Santoli, Sachs, and Romey (2008) conducted a survey regarding teachers' attitudes on inclusion. Nearly all the teachers responded positively to making instructional changes in support of inclusion. However, three-fourths of the teachers

surveyed did not believe students with disabilities could be effectively taught in general education classrooms. Less than half of the teachers believed inclusion was a positive practice for general education students, while three-fifths indicated it was a good practice for special education students. The teachers' greatest concerns related to a lack of time associated with collaboration, meeting attendance, and instructional planning. The positive attitude of the teacher was noted to be the most significant factor in successful inclusion. Additionally, administrative support, collaboration, and time are critical to the success of all inclusion programs.

School-based programs are a primary subject of study because of their promising results in the treatment of ADHD in schools. Schultz et al (2011) conducted a literature review on school-based services focusing on cognitive and behavior interventions. They pointed out an important difference in the words accommodation, or altering the environment or expecting to accommodate the disability, and intervention, or remediating the disability. Regarding interventions, the researchers found in elementary schools, interventions are primarily behavioral, while in secondary schools cognitive interventions were found to be more widely used. Self-monitoring was found to be a weakness for children, resulting in poor academic performance. They believe behavior implementations by educators on the student's environment are needed until the student acquires self-monitoring behavior skills.

Shapiro and DuPaul (1996) described a school-based consultation program for providing services for students with ADHD. It included in-service training for the school's personnel to establish core knowledge of students with ADHD, on-site consultation for distinct specific needs, and advanced training follow-up to sustain implementation.

Significant factors included: the in-service incorporated school-based self-management strategies; school-based behavior management for teachers; home-based behavior management for parents; medication monitoring and pharmacology intervention; and social skills training. The on-site consultation portion consisted of an action planning meeting and implementation of that plan. Lastly, the follow-up consultation included advanced training in ADHD with limited ongoing support. After three years of implementation, the results indicated a school-based consultation program could deliver effective service for staff working with students with ADHD. This program appeared to the researchers to be a successful model for increasing knowledge and services to middle school students with ADHD.

Universal social and emotional learning (SEL) is an evidence-based performance program wherein students are taught how to develop protective mechanisms for positive adjustment. The SEL program strives to reduce risk factors and instill core competencies to recognize and manage emotions, set positive goals, establish positive relationships. Durlak et al. (2011) studied 213 school-based SEL programs. The findings indicated SEL programs yield significant positive effects on targeted social-emotional competencies and attitudes, and further enhance student academic performance. Finally, data reveal general education teachers can effectively conduct SEL programs without outside help. The SEL program is also effective to improve student skills, attitudes, and behaviors for all grade levels.

The Challenging Horizons Program (CHP) is a school-based program focusing on academic and social issues associated with ADHD. Evans et al (2006) looked at the components for this program and its feasibility in middle school. The CHP multimodal

program involves all areas of a student's life including academic, disruptive behavior, and social functioning interventions, added with integrated and after school models. The researchers concluded the CHP program may provide an effective means for treating young adolescents with ADHD.

Schultz and Evans (2009) conducted a study to determine if CHP-C (Challenging Horizons Program, Consultation Model) effectively reduces or delays academic failure. Seventy-nine middle school ADHD students were selected and grades were collected for two consecutive years. Failure experiences, below a GPA of 1.0, were examined for the CHP-C treatment group and the control group. The control experienced failure events at a rate of four times the rate of the treatment group. In both groups IQ CHP-C appeared to play a unique role regarding failure experiences. The higher the student's IQ, the better their academic survival outcome was; however, family income did not appear to make a difference with either group. Based on previous studies using the CHP-C program, the researchers determined while there are immediate benefits for preventing failure for the program, it was partially effective for reducing ADHD symptoms the first year; the second and third year saw increasing benefits, but declined thereafter.

Margalit and Raskind (2009) explored online communications of mothers who had children with learning disabilities and ADHD. From the online community messages, the researchers determined mothers of these children valued this communication as it empowered them with valid and reliable information on their children's needs, and gave them emotional support including empathy, companionship, and withholding of judgment. As pointed out by the researchers, often teachers are not

aware of parents' frustration and distress regarding their child with ADHD and this causes misunderstandings for both parents and teachers. These data demonstrate the need for empathetic communication between teachers and parents.

Mautone, Lefler, and Power (2011) described family-school interventions for students with ADHD and highlighted the Family School Success (FSS) program. This program focuses on strengthening the parent-child relationship, improving parents' behavior management skills, and increasing family involvement in education. Additionally, the FSS program provides descriptions for working with challenging families and teachers. With a clinician as a link between the family and teachers, strategies are developed to deal with the child's behavior issues. Still, the authors emphasized teachers can only have an indirect influence regarding the role of home issues. Nonetheless, the need for strong home-school collaboration is critical; the success of the FSS program underscores this understanding.

School personnel are often the first to suggest to parents that their child may have attention concerns. However, as pointed out by Mills (2011), educators often interject their own beliefs, perceptions, biases, and experiences into suggestions for treatment of a child with ADHD. Findings from Mills' study indicate parents are most often initially opposed to medication for the treatment of their child's undiagnosed attention problems. However, after receiving a medical diagnosis of ADHD, parents were more likely to consider medication, but were ambivalent about the decision. Mills points out teachers and social workers are highly influential in recommending treatment decisions and often pressure the family into medicating.

Wood et al (2009) examined teacher preferences to recommending accommodation for ADHD students depending on their gender and ethicality. The researchers found teachers were more likely to recommend interventions with less parental support to students from minority homes, where as they recommended more parental support interventions for Caucasian students. Furthermore, Wood et al. suggested teachers are more likely to use classroom-based interventions for African-American students and less likely to use parental involvement. They found evidence-based interventions frequently included parental involvement. While the researchers made some speculations on this phenomenon, they acknowledged there is a lack of evidence in this area and more research needs to be conducted.

Nowacek and Mamlin (2007) described the modifications general education teachers were making for students with ADHD. The findings identified what teachers knew about ADHD and what modifications were being made for those students. The participant teachers were from elementary and middle schools, considered effective by the principal, had five years or more teaching experience, and were currently teaching students with ADHD. Findings revealed, while general education teachers were aware of the characteristics of students with ADHD, they were making few classroom modifications for those students. Where modifications were being made, the teachers were simply getting by and were not planning in advance the specific modifications and interventions they would use on a daily basis. The teachers tended to be unresponsive to the skill needs of students with disabilities, and were allowing other school personnel to meet the student's needs. The researchers speculated this may perhaps be due to lack of ongoing support to implement changes and refine practices. More academic

modifications were made by middle school teachers, whereas elementary teachers made more behavioral modifications, possibly due to older students successfully regulating their behaviors either through medication or through learned experience. Specific modifications included: reduced length of assignments, audio taped books, read aloud instructions, extra time for assignments, limited differentiating of assignments, use of computer for written assignments, checking daily planners, and reminding students of materials for class. Perhaps, due to the time it takes to implement, teachers opted instead for whole-class strategies to facilitate high-stakes testing, and differentiated instruction. Middle school teachers rarely used behavioral interventions. Lastly, Nowacek and Mamlin indicated modifications most often used involved minimal preparation time (p. 34). Teachers tended to be unresponsive to the skill needs of the student; however, school personnel other than the classroom teacher met most needs.

Snider, Busch, and Arrowood (2003) conducted a survey of teacher knowledge of ADHD and stimulant use. Their results revealed teachers possess limited knowledge of both ADHD and stimulant use; nonetheless, teachers revealed positive opinions of the use of medication for the treatment of ADHD. The researchers suggested pre-service and in-service courses on pharmacological and behavioral interventions for ADHD.

In a study on teacher training, Syed and Hussein (2009) looked at teacher knowledge of signs and understanding of ADHD. Their findings show a significant increase in teacher awareness by teachers after the training; teacher awareness remained after a six-month period.

Martinussen, Tannock and Chaban (2011) concluded 76% of general education teachers had none or only brief training in ADHD, and 41% of special education teachers stated they have little or no training in ADHD. Additionally, it was found that general education teachers who had moderate to extensive training in ADHD were more likely to use recommended approaches. Martinussen, Tannock and Chaban suggested pre-service programs include training in this area and current teachers need in-depth professional development including individual behavior management strategies such as the daily report card.

Jordan et al. (2004), using web-based applications, examined how to enhance teacher preparation to better serve students with ADD/ADHD. The study used graduate students with a majority being teachers in their first or second year. The on-line ADD/ADHD class was compared with a Learning Disabilities class in a typical college classroom setting. A survey was given to both classes regarding their knowledge and efficacy of ADD/ADHD. The data show the on-line course was effective in helping teachers feel more knowledgeable about ADD/ADHD.

Curtis, Pisecco, Hamilton, and Moore, (2006) explored teachers' perceptions of classroom interventions with students diagnosed with ADHD. While their purpose was to compare perceptions between New Zealand and United States teachers, their findings are quite relevant to the current discussion in that they focused on strategies involving the use of the daily report card, a response cost, the classroom lottery, and on medication. They conclude teachers in the U. S. are more accepting of using medication, and the response cost technique, and are more involved in behavior planning. U.S. teachers felt the use of both interventions resulted in more timely effects,

whereas the daily report card and classroom lottery techniques took longer to see results.

Investigating teacher ratings of students with ADHD, Evans et al (2005) targeted three research questions to elementary and secondary schools. The first, dealt with the area of school functioning which the teacher was best able to report. The second looked at whether poor teacher agreement was the result of not knowing students in the first few months of the school year. Thirdly, they examined whether each teacher represented a separate context that might be independently studied. The significant results centered on the third question. Findings describe, in elementary schools, the classrooms and teachers were relatively dependent on school-wide factors or unitary context. However, in secondary schools, classrooms appeared to represent a unique context and independent of outside school-wide factors. These findings highlight the critical importance for data on students with ADHD being collected and analyzed within the classroom setting. The behaviors exhibited by students with ADHD may be different and unique to each secondary classroom; whereas behaviors of these students are similar across all classrooms in elementary schools. The implications are that adolescent students may exhibit ADHD behavior in some classrooms and not in others, and may exhibit the behaviors at school but not at home or the opposite may be true. This range of potential behaviors has challenging implications for diagnosing ADHD.

Medical treatments for ADD/ADHD are related to this study, as treatment plans will affect students in school for the better or possibly for the worse. While there are many studies examining the use of medication and/or other treatments for ADD/ADHD, only two were selected in view of the fact they are 1) current, relevant research, and 2)

they represent the two basic treatment types available: Pharmaceutical and Multimodal Intervention Models.

Stimulant use, as a treatment for students with ADD/ADHD, has been practiced for many years and is used on average by 90% of students with ADHD (Reid, Maag, Vasa, & Wright, 1994). Marcus and Durkin (2011) investigated students who used stimulant treatments and compared grade point averages. Participating students included grades one through eight, with a diagnosis of ADD/ADHD, who took at least one stimulant prescription. Duration of the study was three marking periods. Conclusions were consistent in identifying stimulant use as associated with improved student academic performance. Long-term perspective studies, however, are required to substantiate such data. Reid, Maag, Vasa, & Wright (1994) reminded school personnel to be aware medications have potential side effects on students. Additional problems with pharmacological treatments include dispensing, storing, and accounting for medication at school.

While many parents choose to use stimulant treatments to minimize the effects of ADD/ADHD behaviors, some parents choose to use non-pharmacological treatments. Young and Amarasinghe (2010) studied the strengths of non-pharmacological treatments for students with ADD/ADHD from early childhood to young adult. Their approach was broad based and involved parent training, school interventions, implementation of Cognitive Behavior Theory, social skills training, and multimodal treatments. Multimodal treatment approaches include multiple elements that work together and support each other. These elements, or modes, comprise parent and child education on ADD/ADHD, specific behavior management techniques, appropriate

educational programs, and supports. With regard to middle school students, the researchers determined parent training was more beneficial for younger students. There were insufficient data to draw conclusions regarding Cognitive Behavior Therapy and social skills training. Nonetheless, these findings demonstrate multimodal treatments were the most promising method to establish adolescent self-efficacy (i.e. parent, teacher; and adolescent management strategies; teach social skills strategies; engage in recreational and sports activities; and implement individual program and interventions). To use, or not to use, stimulants are decisions probably best left as a parental decision in consultation with medical personnel. Nevertheless, it is important for teachers to understand the benefits and drawbacks for both stimulant use and broad based behavior treatments. Additionally, some researchers suggest a multimodal intervention model, which includes medication (Reid, Maag, Vasa, & Wright 1994).

<u>Section Two: Evidence-Based Classroom Interventions</u>

In a review of the literature, Bellanti (2011) summarized key principles to plan interventions for students with ADHD. They included: establish real-time support where and when the intervention is most needed and externalize the classroom structures so rules, schedules, and rubrics are visibly available for ongoing guidance on student behavior. The classroom is well organized with thoughtful seating, movement breaks, and visual clues. Adjustments can be made for development of self-management. Bellanti described support for organizational skills for externalizing mental structures (ie. graphic organizers, planners, calendars). Additionally, navigation time was identified in order for students to monitor their activities. Data indicated when benefits for maximizing attention through varying teaching styles, multisensory instruction, and

hands-on learning; student achievement indicators improved. These students were able to maintain motivation through high-interest content and frequent opportunities to experience academic success.

Gardill and DuPaul (1996) identified behavioral strategies through reviewing literature related to classroom interventions and academic success. Their literature review was divided into three categories: 1) Antecedent Manipulators including setting and structure of classroom, daily schedules, seating arrangements, classroom rules and teacher expectations; 2) consequence manipulators including the response or application of consequences by the teacher following a specific behavior, and 3) cognitive-behavioral interventions including developing self-control and problem-solving skills. Successful teacher-directed intervention strategies included: structure, physical arrangement, varied presentation formats and materials, brisk instructional pace, use of cues, use of prompts, use of attention checks, brief academic tasks interspersed with passive tasks, and peer tutoring. When used together, the researchers believe these strategies appear to positively impact progress for students with ADD/ADHD.

Mulligan (2001), using survey data with general educators, identified fifteen strategies categorized into five constructs (behavior strategies, environmental modifications, adaptations to curriculum, modifications of delivering the curriculum, and sensory modulation) (p. 28). The findings revealed preferential seating, frequent contact, and enforcing routine and structure were used most frequently. Furthermore, peer tutoring, time-out, use of quiet areas, and assistance during transition were used least. Regarding recommendations for improving educational programs for students with ADHD, teachers reported they would like an increase in support personnel in the

classroom, training in specific teaching strategies, smaller class sizes, greater parental support, and changes in teachers' attitudes towards students with ADHD were needed. Overall, teachers indicated environmental modifications were more effective than behavior strategies. More collaboration with parents, more classroom space, and more materials for hands-on, active learning were also believed to be essential for effective instruction with students with ADHD.

Zentall et al. (2011) described cooperative groups integrated with typical peers and students with ADD/ADHD. The researchers observed social behaviors, interactions, and performances of the groups as they completed problem-solving activities. The results demonstrated behaviors did not decrease during cooperative learning. Conversely, an unexpected finding indicated the performance of groups with students with ADD/ADHD was more successful compared with their typical peers when the activities were interesting and did not involve the child's learning disabilities. Another significant finding was boys exhibited less positive motor behavior across time, while girls exhibited less positive verbal behavior across time.

Using computer software, Cobb (2010) examined differentiating instruction. Compass Learning Odyssey Reading is a software program using differentiated instruction strategies whereby students complete a pre-reading activity to introduce new ideas, watch a digital presentation of the story, and complete comprehension exercises. Students focus on the main idea, sequence and predict. Cobb distinguishes between direct or whole group instruction and differentiated instruction where students work in guided, flexible and/or cooperative groups. Teachers and students collaborate to meet targeted goals. Teacher-participants were instructed in implementing the program,

cooperative learning, and differentiating instruction during professional development. Subsequent to teachers using the software, students demonstrated significant reading improvement between fall and spring assessments. From these results, Cobb concluded differentiating instruction using technology, i.e. Compass Learning, was effective in increasing student reading achievement.

Ostoits (1999) noted students with ADD and ADHD typically have reading difficulties and looked for specific reading interventions to improve their reading. In her review of the literature, she identified a number of strategies that work with individual students. For example, ADD/ADHD students require silent reading time to process what they are reading without distractions and often need to reread for understanding. Having students quietly read orally, enables them to hear the words. In addition, using a place marker is often helpful. Another strategy is small group work; students do not become bored and are not intimidated by students who are more advanced in their reading. Students with ADD/ADHD do better with daily structures resulting in a comfort level in the classroom. Creating a risk-free classroom atmosphere is essential wherein students use predictable texts and the reading is shared, repeated, paired, and often oral. The researcher noted the importance of readings to be interesting, relevant, motivating, and multisensory. She shared it is critical for ADD/ADHD students to be actively engaged. Utilizing strategies of pre-reading and after reading to improve understanding and allowing students to move around the classroom in order to stimulate brain functioning were also shown to be effective. At the conclusion of her research, Ostoits states, "Each time I learn and employ a new strategy I have more success in teaching these students to read (p. 131).

Iseman and Naglieri (2011) determined the effectiveness of a planned-based cognitive strategy instruction for students with ADD/ADHD who are poor planners. The researchers used PASS (Planning, Attention, Simultaneous, and Successive) which is a processing-based cognitive strategy method. They established a baseline with math calculation worksheets for an experimental group and a comparison group. The experimental group engaged in 10-minute group discussions, in addition to the regular math instruction, where they reflected on their planning and employment of effective strategies. The comparison group only received the regular math instruction. After the intervention, both groups were given another set of math calculation worksheets, which represented the progress of the regular math instruction and subsequently compared with students' baseline scores. The experimental group demonstrated through follow up research a significant improvement beyond the comparison group on the math worksheets, and their progress was sustained over time. The authors believe the improvement was a direct result of the increased use of effective strategies by the students with ADHD during the group planning discussion sessions.

Wheeler, et al (2011) experimented with students' abilities to resist disruption. The limited experiment involved six students who had their response rates to distraction tested. Five of the six students tested were observed to have greater resistance to distraction for tasks associated with a richer reinforcement schedule. The researchers concluded ongoing relative reinforcement affects behavioral persistence; additionally students are more likely to maintain proper behavior in the presence of common distractions with weightier reinforcement.

Belland, Glazewski, and Ertmer (2009) used a case study method on a problem-based learning (PBL) inclusion group in middle school. Their study consisted of a small mainstream group engaged in cooperative learning. The findings confirm the potential of PBL in mainstream classrooms. PBL provides effective interaction among members; this support is integral toward the success of all group members. They found inclusion in-group PBL may increase students' motivation and social confidence as well as supporting the ability to overcome challenges confronting students with special needs.

Inclusion is essential in education and Humphrey (2009) targeted evidence-based strategies for including ADHD students. His review of the research describes the importance of teachers preparing environmental factors (minimizing distractions through preferential seating and providing predictability, structure and routine). It is critical to incorporate behavioral strategies including positive reinforcement, behavior reduction, and response cost. Data reveal the importance of including cognitive interventions such as self-talk, self-instruction, self-monitoring and self-reinforcement.

DuPaul, Weyandt, and Janusis (2011) examined effective school-based intervention strategies for students with ADHD. First, they looked at behavior interventions with antecedent and consequence-based strategies. They reported posting, explaining, and reviewing classroom rules, modifying the length of assignments, and allowing student choice-making to be effective behavior interventions. Self-management where students evaluate, monitor, and/or reinforce their own behaviors was also identified as effective. Additionally, successful academic interventions included teacher-mediated direct, computer-based, and peer-mediated instruction. Home and school communication programs were described to be effective

including the use of daily report cards. Interventions targeting social relationships were seen to be necessary for success. Lastly, the researchers identified collaborative consultation among professions.

Specifically, Fabiano et al (2010) investigated the effectiveness of the Daily Report Card (DRC). Teachers completed the DRC at the end of each school day and sent it home for parents to review. Behaviors on the DRC included academic productivity and behavioral issues. At the conclusion of the study, teachers reported fewer behavior-related problems and students were completing assignments with greater accuracy. While teacher-participants reported completing the DRC was time consuming and demanding, it was also described as easy to use, practical, and resources were available for implementation. These findings indicated the effectiveness of the DRC as an intervention tool for students with ADHD.

Graham-day, Gardner, and Hsin (2010) examined increasing students' with ADHD on-task behaviors using self-monitoring. Their experiment consisted of data collection on three students diagnosed with ADHD. The data collected included establishing a baseline, introducing self-monitoring, and self-monitoring with reinforcement. Data indicated two students increased on-task behavior with self-monitoring alone, while the third improved the on-task behavior with reinforcement. These data supported previous studies, which found self-monitoring and positive reinforcement to be effective interventions for increasing desirable classroom behaviors.

Medical research indicates individuals with ADHD often have weakness in the working memory, also called the executive function (Melby-Lervåg &Hulme, 2013; Klingberg et al. 2005; Mezzacappa & Buckner, 2010). Martinussen and Major (2011)

used literature to assist with instructional interventions that improved academic performance of students with ADHD. Learning new procedures and completing complex tasks are often challenging for students with executive functioning difficulties. Adapting instruction, providing external supports such as scaffolding, and teaching specific strategies to promote goal-oriented behavior can assist and support working memory deficits.

Mulrine, Prater, and Jenkins (2008) focused their research on exercise and physical activity in the classroom. Their review of the literature identified children with ADHD are at risk of movement skill difficulties, have poor levels of physical fitness, and often have developmental coordination disorder. Data revealed few interventions focused on movement and physical fitness and ADHD. Also noted was the positive impact oxygen levels have on brain functioning. The researchers suggested the contributions of incorporating exercise into classroom activities and daily schedules for all students. Specifically, when implementing movement activities with students with ADHD, they recommended dividing activities into small parts, using brief directions, providing visual supports, modeling directly the activity, and providing peer partners.

Summary of the Review of the Literature

This literature review focuses on the current state of educating students with ADD/ADHD. The findings describe the evidence-based research recommended for best classroom practices. These interventions contribute to success of general education students and, in particular for the current discussion, of ADHD learners.

There is abundant research exploring the state of students with ADD/ADHD in schools. IDEA was passed to allow access to students with disabilities into the

educational system, and ADD/ADHD qualifies as "a specific learning disability."[5]

However, in practice, most students with ADD or ADHD do not qualify for special

education services because their ADHD does not "adversely affect" their educational

performance (May, 2009). The consequence is 80% of these students are

mainstreamed with little or no direct special education support (Reid, Maag, Vasa, &

Wright 1994). It is critical for general education teachers to possess knowledge and

training related to techniques and interventions toward ensuring success with their

students with ADD/ADHD.

Students with a diagnosis of ADD or ADHD not only have obvious difficulties

with inattention, hyperactivity, and impulsiveness, but as well struggle with a number of

additional adverse characteristics. Boys exhibit ADHD characteristics more than girls at

a ratio of nine to one; 90% are Caucasian; there is a slight peak in third grade; and

one/three receive special education services (Reid, Maag, Vasa, & Wright 1994).

However, some students who exhibit behaviors similar to ADD/ADHD are attention-

seeking (Mellor, 2009). While these attention-seeking behaviors may be irritating and

require mediating, they do not have the cognitive processing medical disorder

associated with students diagnosed with ADHD. Students with ADD/ADHD cannot

verbally express related words to feeling or define complex emotions, and this may lead

to more acting out, inappropriate behavior, and demonstrating lack of social skills (Kats-

Gold & Priel,2009). These students are often motivated simply by not wanting to be the

worst student in the class, and some researchers believe any motivation is better than

no motivation at all (Barron et al. 2006). ADHD symptoms affect individuals throughout

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[5] PL 108-446: The Individuals with Disabilities Education Improvement Act of 2004, 20 USC 1401 SEC 602, 3Ai.

their entire life, and academic underperformance appears to be the result of deficits in executive functioning (Daley & Birchwood, 2010). Symptoms associated with ADD/ADHD diminish as children get older. However, major disruptions in life, such as transition to middle school, may hinder the typical decline of symptoms (Langberg et al 2008). Self-monitoring is a weakness for children with ADD/ADHD, resulting in poor academic performance (Schultz et al. 2011). Adolescent students may exhibit ADHD behavior in some classrooms and not in others, and may demonstrate the behavior at school but not at home; the opposite may also be true (Evans et al. 2005).

There are several tools available for measuring and diagnosing ADD and ADHD. Adolescent Behavior Checklist (ABC) is one behavior rating scale demonstrated effective as a student self-reporting assessment tool (Adams et al. 1997). Academic Goal Theory attempts to identify academic success, and is considered as a leading motivational framework for understanding the success of students with ADD/ADHD (Barron et al. 2006).

Related to interacting with students with ADHD, lack of teacher training is well established in research findings (Reid, Maag, Vasa, & Wright 1994; Snider, Busch & Arrowood 2003; Syed &Hussein, 2009; Martinussen, Tannock, & Chaban 2011). However, when provided moderate training on interventions, teachers are more likely to use recommended approaches. Web-based training is also identified as effective (Jordan et al. 2004).

Many research-based interventions are available for inclusion teachers. In elementary schools, teachers often use behavioral interventions, while in secondary schools, teachers regularly employ cognitive interventions (Schultz et al. 2011). General

education teachers use consultation with special educator or other support services personnel most often, followed by volunteer support for assistance with students. The research indicates overall teachers are using more special education push-in practices such as small group, one-on-one instruction, and planning. One of the best evidence practices is co-teaching, which represents one of the most beneficial inclusion practices; yet, it is the least utilized method of instruction (Kilanowski, Foote & Rinaldo, 2010). While teachers often know what the best practices are, they are sometimes hindered by a lack of time to collaborate, attend meetings pertaining to students with disabilities, and advance plan for instruction (Santoli, Sachs, & Romey, 2008).

Findings related to general education teacher classroom modifications determined, while general education teachers were aware of the characteristics of students with ADHD, they were making few classroom modifications for those students (Nowacek & Mamlin, 2007). Most often middle school teachers made more academic modifications such as reducing length of assignments, using audio-taped books, reading aloud instructions, providing extra time for assignments, including computer for written assignments, checking daily planners, and reminding students of materials for class. Differentiated instruction and behavioral interventions were rarely seen to be used by middle school teachers. Conversely, modifications most often used took minimal preparation time, tended to be unresponsive to the skill needs of the student, and were implemented by school personnel other than the classroom teacher (Nowacek & Mamlin, 2007).

U.S. teachers often looked for timelier intervention results, verses interventions involving more preparation and implementation when compared with other countries (Curtis, Pisecco, Hamilton, & Moore, 2006).

Research findings demonstrated school-based programs are of great benefit for students with ADD/ADHD. One consultation model identified as effective incorporated in-service training, behavior management, social skills training, home-based parent training, and medication monitoring and pharmacology intervention (Shapiro & DuPaul 1996). Another school-based program, the Universal Social and Emotional Learning (SEL), indicated the program capacity to yield significant positive effects on targeted social-emotional competencies and attitudes, as well as enhanced student academic performance (Durlak et al. 2011). Early research describing the Challenging Horizons Program (CHP), which is school-based and focuses on academic and social issues associated with ADHD, evidenced potential for positive success (Evans et al 2006). Later findings provided mixed results for the CHP-M program. Immediate benefits for preventing failure for the program and partially effective for reducing ADHD symptoms noted for the first year; the second and third year demonstrated increasing benefits, but declined thereafter (Schultz & Evans, 2009).

Family involvement is crucial toward the success of students with ADD/ADHD. Communication between parents and teachers is vital and often teachers are not aware of the parent's frustration and distress regarding their child with ADHD. This communication gap causes misunderstandings for both parents and teachers. Empathetic communication between teachers and parents (Margalit & Raskind, 2009) is integral for children with ADHD. The Family School Success (FSS) program focuses on

family-school interventions for students with ADHD. This program centers on parent-child relationships and works toward improving parents' behavior management skills, increasing family involvement in education, and facilitates working with challenging families and teachers. Research describes this program as effective and able to highlight the essential collaboration between school and home (Mautone, Lefler & Power 2011). School personnel are more likely to seek more parental collaboration from Caucasian parents then from minority parents (Wood et al. 2009).

Research exploring parental decision making for treatment of ADD/ADHD identified teachers and school personnel as influential in whether or not to use pharmacological treatment, and were found often to pressure for using medication exceeding parents' reservations (Mills, 2011). While teachers prefer the use of stimulant medication as a treatment for ADD/ADHD, research demonstrated the limited knowledge of drugs and effects (Snider, Busch & Arrowood, 2003).

Pharmaceutical and multimodal intervention models represent two types of treatment options; both intervention models influence student school performance. Ninety percent of students diagnosed with ADHD use some sort of stimulant medication; however, there are potential side effects on the students, and problems may arise with dispensing, storing, and accounting for medication at school (Reid, Maag, Vasa, & Wright, 1994). Consistent stimulant use can improve student academic performance (Marcus & Durkin, 2011). Of the multimodal treatments, an effective method involved parent training, school interventions, Cognitive Behavior Theory, social skills training, and multiple elements that work together and support each other (Young & Amarasinghe, 2010). This multimodal treatment method was most promising to

establish adolescent self-efficacy. Some researchers suggested a combination of multimodal and medication (Reid, Maag, Vasa, & Wright, 1994). It should be noted that teachers, while influential in the process, ultimately do not make this decision. However, subsequent to the final decision, classroom teachers must interact on a daily basis with the student. Therefore, it is important for teachers to be fully cognizant of ramifications for all treatment options.

General education and elective teachers are the first line in the education of students with ADD/ADHD. Classroom modifications are vitally important in the success of these students. Modifications are thoughtfully planned in advance to be used on a daily basis and teachers are responsive to the skill needs of students with disabilities. By applying proactive and preventative efforts into planning, teachers rely less on other school personnel to meet students' needs (Nowacek & Mamlin, 2007).

Overall strategies include: establishing real-time support where and when the intervention is most needed; externalizing classroom structures where rules, schedules, and rubrics are visibly available for ongoing guidance on student behavior; organizing thoughtful seating arrangements, providing opportunities for movement breaks, and using visual clues; adjusting for developing of self-management; teaching organizational skills to externalizing mental structures (graphic organizers, planners, calendars); providing navigational time so students can monitor their own activities; maximizing attention through varying teaching styles, multisensory instruction, and hands-on learning; and maintaining motivation through high-interest content and ensuring frequent opportunities to academic success (Bellanti, 2011).

Other research-based considerations include teacher attitude, student self-monitoring of behavior, and parent-teacher communication. The most significant factor in successful inclusion practices is the positive attitude of the teacher (Santoli, Sachs, & Romey, 2008). Behavior implementations by educators on the student's environment are often required until the student acquires self-monitoring behavior skills (Schultz et al. 2011). Empathetic communication and collaboration between teachers and parents are also vitally important (Margalit & Raskind, 2009; Mautone, Lefler & Power, 2011; DuPaul, Weyandt, & Janusis, 2011).

Effective behavioral strategies which appear to positively impact progress for students with ADD/ADHD include: structure; physical arrangement; varied presentation formats and materials; brisk instructional pace; use of cues, prompts, attention checks; brief academic tasks interspersed with passive tasks; and peer tutoring (Gardill & DuPaul,1996). Further research indicated students with ADD/ADHD are poor planners and greatly benefit with planned-based cognitive strategy instruction to self-monitor during academic assignments (Iseman & Naglieri, (2011). Strategies training in resistance to disruptions evidenced additional effectiveness (Wheeler, et al. 2011). Positive reinforcement, behavior reduction, and response cost are also effective behavioral interventions (Humphrey, 2009). Finally, the use of physical movement in the classroom is identified as an effectively proven behavioral strategy. Research evidenced a positive impact on brain functioning from higher oxygen levels. These data demonstrated incorporating exercise into classroom activities and using daily schedules are essential for positive cognitive development. Specifically, when implementing movement activities with students with ADHD, divide activities into smaller sections,

identify brief directions, provide visual supports, model directed activity, and use typical peer partners (Mulrine, Prater & Jenkins, 2008).

Medical research indicated individuals with ADHD often have weakness in the working memory, also called the executive function. To overcome this weakness, educators adapt instruction to meet these students' needs, provide external supports such as scaffolding, and teach specific strategies to promote goal-oriented behavior (Martinussen & Major, 2011). Specific research-based academic interventions focus on peer and parent tutoring, task/instructional modifications, classroom functional assessment procedures, self-monitoring, strategy training, and homework focused interventions (Daley & Birchwood, 2010; Graham-Day, Gardner, & Hsin, 2010).

Academic modification often used by middle school teachers included: reducing length of assignments, using audio-taped books, reading aloud instructions, extending time for assignments, differentiating of assignments, using computer for written assignments, checking daily planners, and reminding students of materials for class. While research indicated these strategies to be effective, differentiated instruction and behavioral interventions demonstrated the most potential for success with students who have ADD/ADHD (Nowacek & Mamlin, 2007). Co-teaching is considered by researchers to be the most beneficial inclusion strategy (Kilanowski, Foote, & Rinaldo, 2010). The daily report card also provides evidence as an effective intervention with students with ADD/ADHD (Fabiano et al. 2010). Cognitive interventions are highly effective including self-talk, self-instruction, self-monitoring and self-reinforcement (Humphrey, 2009).

Cooperative groups indicated success with students with ADD/ADHD (Zentall et al, 2011). While not initially evident, negative behavior decreases in cooperative groups.

Data demonstrate groups having students with ADD/ADHD are more successful than their typical peers when the activities are interesting and do not involve the child's learning disabilities.

In recent years, differentiating instruction has become a common phrase used in educational arenas. Differentiation of instruction combined with cooperative learning and a computer-based reading program evidenced effectiveness in improving reading achievement for students with ADHD (Cobb, 2010; DuPaul, Weyandt, & Janusis, 2011). Findings also demonstrate problem-based learning in cooperative groups increase students' motivation and social confidence, and help to overcome the challenges for students with ADD/ADHD (Belland, Glazewski & Ertmer, 2009).

Students with ADD/ADHD typically score below their reading level. Strategies for successful reading improvement include silent reading time without distractions. This silent time is needed to process what is read, reread for understanding, and quietly orally read to hear the words. Additionally, the use of a place marker, small group work, daily structures resulting in a comfort level in the classroom, risk-free classroom atmosphere, use of predictable texts, and student reading share-time may benefit ADD/ADHD learners. Passages must be interesting, relevant, motivating, and multisensory. Students with ADD/ADHD become actively engaged and utilize pre-reading and after reading to stimulate brain functioning (Ostoits, 1999).

Chapter 3: Research Design/Methodology

A small pilot study was conducted in the spring of 2012 on interventions for

students with ADHD. IRB permission was provided to collect data on general education

teachers' perspectives on teaching students with ADD/ADHD. These findings are

significant to the current study for the following reasons: First, findings suggested

general education teachers were not using all the researched based best practices and

interventions. Data also indicated special education teachers were seldom teaching

students who only had ADD/ADHD. These pilot data indicated general education

teachers relied on the expertise of special educators as their primary source of

information on how to effectively teach students with ADD/ADHD. Finally, pilot data

suggested schools and school systems were not giving general education classroom

teachers the needed support for students with ADD/ADHD. This current project

emerged from the earlier pilot project.

<u>Current Study</u>

Whereas the previous study used both a survey instrument and interviews, the

present study uses an on-line survey with a mixed method approach containing both

quantitative and qualitative data. As noted by Creswell (2009), combining qualitative

and quantitative methods studies, utilizes the strength of both and greater insight can be

achieved (p.14).

IRB

This study used the original pilot study IRB Protocol Number 12-234 of March 6,

2012 (Attachment a.1). A change memo was submitted and approved on October 5,

2012 to add: (1) General Education Teachers, (2) the study to be conducted through

email using Google Docs, (3) the Informed Consent Document to be emailed to each teacher and by returning the email, they are agreeing to participate in the study, and (4) the surveys are submitted anonymously and the participants' responses are unidentified (Attachment c.1). November 28, 2012 a change memo was filed and approved to add teachers from an additional county school district (Attachment a.3). As well, university graduate students who were also employed in a school system was approved on January 7, 2013 to collect hard copies of the surveys from MTSU Students (Attachment a.4). The approval for the original pilot study was received from RCS Assistant Superintendent on March 14, 2012 (Attachment b.1). The current study approval was received from the RCS Assistant Superintendent on October 10, 2012 (Attachment b.2). Ten county middle school principals were sent requests. After approval from the school's principal, an email was sent out to teachers asking for participants (Attachment c.1) and included the consent form attached (Attachment c.2). By responding to the email, teachers were giving consent to be part of the study. Upon receipt of the return email, the survey link was sent to the teachers. Three to four days after the principal forwarded the original email, a follow up email was sent out to sixth - eighth grade general education teachers.

Approval was given by the Director of Schools for Cannon County on November 28, 2012 (Attachment b.3). Cannon County has a small school system with six elementary (k-8) schools. Emails were sent out to the principals of the six county elementary schools on November 28, 2012. Three principals gave approval. The return email was sent out requesting principals to forward the survey link to fifth/sixth through eighth grade teachers. Three to four days after the principal forwarded the original

email, a follow up email was sent out to the general education teachers in grades six –
eight.

Dr. Kathleen Burris and Dr. Beverly Boulware solicited surveys from MTSU
graduate students.

Participants

All the participants are either from Rutherford County middle schools or
elementary schools with middle school grades, Cannon County elementary schools, or
from MTSU graduate students currently teaching in a classroom.

The majority of the participants were teachers in the Rutherford County School
system. It is the fifth-largest county in Tennessee with a population of 262,604 in the
2010 census and with over 40,000 students, not including students in the K-sixth grade,
of the Murfreesboro City School system. Eighty-six percent of residents are Caucasian
with 10% African-American, and 4% of other ethnic origin. Rutherford County Schools
employs some 2,400 teachers including over 700 in middle school grades. The county
has a unique combination of urban, suburban, and rural populations, and had a
population increase of 44.3 percent over the 2000 census. The county seat is
Murfreesboro, and is the geographic center of Tennessee. The county has a total area
of 624 square miles, and is northwest of Davidson County, which contains Nashville, the
state capital.

A smaller number of teachers were located in the Cannon County School
system. The county is has a total area of 266 square miles, due east of Rutherford
County, and is a much smaller, mostly rural community with a population of 13,801 in
the 2010 census with a 10% growth from the 2000 census. Woodbury is the county seat

and largest city with a population of nearly 2,700. Ninety-seven percent of the county population is Caucasian with 13% of residents under the poverty level. Cannon County employs just over 200 teachers serving in seven county schools.

The bulk of the surveys were intended to come from general education, middle school teachers with only a few being special education, reading and math intervention coaches. A variety of specialty educators also took the survey and their responses are included in the overall totals. Participants needed approximately 15 minutes to complete the survey. This process facilitated knowing who gave consent without identifying the responses each participant gave.

Timeline

The following is a timeline of events in this process:

(1) – Rutherford County

October 10: Approval from the Assistant Superintendent

October 22 thru December 5: Permission granted and surveys collected from county middle schools

December 6: Final requests for participants were sent to schools in Rutherford County.

(2) – Cannon County

November 28: Approval from the Director of Schools

November 28 thru December 6: Permission granted and surveys collected from county schools.

December 7: Final requests for participants were sent to schools in Cannon County.

(3) – MTSU Students

December 28: Emails began to go to students

January 11 thru January 25: Hard copies of surveys collected from students

Instruments

The current study will utilize a Google Docs survey and spreadsheet instruments. The Google Docs survey instrument included eight demographic questions, nine general educations questions, seventeen classroom intervention questions using a likert scale plus a section for a qualitaitive response regarding intervention and, lastly, four qualitative questions regarding problems and hindrances to co-teaching and collaboration with special education staff, hindrances to consulting with school guidance counselors, and how teachers differentiate instruction for ADHD students (Attachment c.3) .

The Google Docs spreadsheet recorded each participant's response to the survey. An anonymous "Timestamp" was given to participants followed by their exact answers (Attachment d.4).

Analysis

This research looks at the following overall general questions: 1) What are teachers' attitudes toward working with students with ADHD? 2) How do teachers feel about the effectiveness of specific intervention for students with ADHD? 3) Are there statistical differences between teacher demographics and teacher perception regarding the effectiveness interventions for students with ADHD? And finally, 4) What interventions, identified in research as effective are not being used by teachers, and why is this so?

The null hypothesis used in this research stated, "There is no relationship between teacher perception score (independent variable) and specific intervention

score (dependent variable)." The two fundamental research questions are: "What do teachers think about the effectiveness of specific interventions, methods, and strategies for students with ADHD?" and "Are there statistical differences between teacher demographics (age, gender, education level, teaching experience, and educational specialty) and how teachers feel about the effectiveness interventions for students with ADHD?"

Based on the Google Doc survey instrument (Attachment c.3), Data Command File (Attachment d.2) and a Microsoft Excel spreadsheet (Attachment d.3) was constructed, and a SPSS frequency and statistics table (Attachment d.4) was developed. Statistical analysis using the Data Command File and the MS Excel Spreadsheet was conducted using IBM SPSS Statistics 20 comprehensive system. Additionally, the Google Doc Summary of Responses are included (Attachment d.1). The resulting analysis is detailed in Chapter 4, Results.

The qualitative data short answer responses describe in more detail the reasons behind why teachers feel the way they do regarding the seventeen classroom interventions for students having ADHD. Research into the effectiveness of qualitative research has shown it to be an avenue for meaningful inquiry and insight with greater depths into why respondents feel the way they do on a particular issue (Sallee & Flood, 2012; Cooley, 2013).

The survey's final section includes narrative responses to questions regarding classroom teacher support and (1) problems with co-teaching, (2) hindrances of collaboration with special education staff, (3) hindrances of consulting with school counselors, and (4) specific ways to differentiate instruction for students with ADHD.

Using the constant comparative method (Bogdan, & Biklen, 2007), narrative text was coded for common themes. While the subject matters of co-teaching, collaboration, and differentiating instruction, are common educational practices, there was no preconceived outcome with the qualitative questions. The research questions were standardized, open-ended, and designed to elicit the attitudes and beliefs of the teachers in the survey (Boudah, 2011).

As the data is collected, key issues, recurring themes, and topics, will be categorized. Patterns will then be considered from categories and subcategories, focused, and coded. It is hoped the analysis of the patterns and categories will result in relevant, descriptive educational data, on problems associated with co-teaching, hindrances of collaboration with special education staff, hindrances of consulting with school counselors and lastly other explicit ways to differentiate instruction for students with ADHD.

Chapter 4: Results

Requests for participants were sent to schools in two districts and to selected MTSU graduate students. The intended pool was current middle school teachers in general education positions including reading, language arts, math, science, and social studies. One hundred and forty-nine teachers participated in the survey. There were higher than anticipated teachers in lower grades and those teaching non-general education classes.

This section will look at (1) the descriptive statistical analysis of the quantitative results in the areas of demographics, general questions regarding students with ADHD, and interventions, and (2) the qualitative responses of the final four questions. At the end of each section of quantitative data are the SPSS statistical analysis tables with text from the Data Command File and the MS Excel Spreadsheet conducted using IBM SPSS Statistics 20 comprehensive system including both the distractive statistical analysis.

<u>Demographics</u>

The survey contained eight demographic informational questions.

(1) Females constituted the bulk of the surveys with 116 participants comprising 78% of total surveys. Males participants were 33 comprising 22%. .

(2) Age range of the participants were well distributed between the ranges; in the 22-24 age range, there were 7 participants comprising 5% of the total surveys; in the 25-29 age range, there were 28 participants comprising 19%; in the 30-34 age range, there were 26 participants comprising 17%; in the 35-39 age range, there were 26 participants comprising 17%; in the 40-44 age range, there were 29 participants

comprising 19%; in the 45-49 age range, there were 10 participants comprising 7%; and in the 50 and up age range, there were 23 participants comprising 15%.

(3) Regarding undergraduate degree, Elementary Education was identified most frequently with 62 participants comprising 42% in this category. Six participants selected Special Education comprising 4% of participants. The category of Other was selected 81 times with 54% of respondents.

(4) Under the category of highest education, BS/A was selected by 70 respondents constituting 47%; MS/A was selected by 65 constituting 44%; EdS was selected by 12 respondents constituting 8%; and EdD/PhD was selected by 2 participants constituting 1% of the total.

(5) For the question of years of teaching, 24 teachers selected 1 to 3 years teaching or 16% of respondents; 42 teachers selected 4 to 9 years teaching or 28% of respondents; 35 teachers selected 10 to 15 years teaching or 23% of respondents; and 39 teachers selected teaching 16 years and over or 26% of respondents.

(6) With the Primary Area of Certification category, 53 respondents or 36% selected Elementary Education; 25 respondents or 17% selected Language Arts; 16 respondents or 36% selected Math; 14 respondents or 9% selected Science; 12 respondents or 8% selected Social Studies; and 29 respondents or 19% selected Elementary Education.

(7) Regarding Highly Qualified, 143 teachers responded with Yes or 96%, while 6 responded with No or 4%.

(8) The Grade Levels taught by participants included 27 responses or 18% for 6th Grade; 36 responses or 24% for 7th Grade; 26 responses or 17% for 8th Grade; 2 responses or 1% for Grades 6th and 7th; 3 responses or 2% for Grades 7th and 8th; 32

responses or 21% for Grades 6th, 7th, and 8th; and 23 respondents selected Other or

15%.

Table 1 displays the statistical information for the demographic section of the survey

results.

		Teacher Gender	Teacher Age	Teacher undergraduate degree	Teacher highest education level	Years of teaching	Primary certification	Teacher Highly Qualified	Grade levels taught
N	Valid	149	149	149	149	149	149	149	149
	Missing	0	0	0	0	0	0	0	0
Mean		1.78	4.1	1.98	1.64	2.61	2.66	1.04	3.55
Std. Error of Mean		0.034	0.147	0.08	0.057	0.087	0.15	0.016	0.178
Median		2	4	2	2	3	2	1	3
Mode		2	5	1	1	2	1	1	2
Std. Deviation		0.417	1.792	0.976	0.69	1.057	1.829	0.197	2.173
Variance		0.174	3.213	0.952	0.476	1.118	3.346	0.039	4.722
Skewness		-1.355	0.175	0.041	0.869	-0.035	0.716	4.725	0.397
Std. Error of Skewness		0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis		-0.166	-1.013	-1.967	0.553	-1.232	-0.956	20.6	-1.434
Std. Error of Kurtosis		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range		1	6	2	3	3	5	1	6
Minimum		1	1	1	1	1	1	1	1
Maximum		2	7	3	4	4	6	2	7
Sum		265	611	295	244	389	397	155	529

Table 1.1 displays the statistical information for the Teacher gender section

of the survey results.

Table 1.1: Teacher Gender		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = 'male'	33	22.1	22.1	22.1
Valid	2 = 'female'	116	77.9	77.9	100
	Total	149	100	100	

Table 1.2 displays the statistical information for the Teacher age section of

the survey results.

Table 1.2: Teacher Age		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = '20-24'	7	4.7	4.7	4.7
	2 = '25-29'	28	18.8	18.8	23.5
	3 = '30-34'	26	17.4	17.4	40.9
Valid	4 = '35-39'	26	17.4	17.4	58.4
	5 = '40-44'	29	19.5	19.5	77.9
	6 = '45-49'	10	6.7	6.7	84.6
	7 = '50 and Up'	23	15.4	15.4	100
	Total	149	100	100	

Table 1.3 displays the statistical information for the Teacher undergraduate

degree section of the survey results.

Table 1.3: Teacher undergraduate degree	Freque ncy	Percent	Valid Percent	Cumulative Percent
Valid 1 = 'Elementary Education'	72	48.3	48.3	48.3
2 = 'Special Education'	8	5.4	5.4	53.7
3 = 'Other'	69	46.3	46.3	100
Total	149	100	100	

Table 1.4 displays the statistical information for the Teacher highest

education level section of the survey results.

Table 1.4: Teacher highest education level	Freque ncy	Percent	Valid Percent	Cumulative Percent
1 = 'BS-A'	70	47	47	47
2 = 'MS-A'	65	43.6	43.6	90.6
Valid 3 = 'EdS'	12	8.1	8.1	98.7
4 = 'PhD-EdD'	2	1.3	1.3	100
Total	149	100	100	

Table 1.5 displays the statistical information for the Years of Teaching

section of the survey results.

Table 1.5: Years of teaching		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = '1-3'	25	16.8	16.8	16.8
	2 = '4-9'	48	32.2	32.2	49
Valid	3 = '10-15'	36	24.2	24.2	73.2
	4 = '16 and Over'	40	26.8	26.8	100
	Total	149	100	100	

Table 1.6 displays the statistical information for the Primary certification

section of the survey results.

Table 1.6: Primary certification		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = 'Elem Ed'	61	40.9	40.9	40.9
	2 = 'Reading-LA'	26	17.4	17.4	58.4
	3 = 'Math'	16	10.7	10.7	69.1
Valid	4 = 'Science'	14	9.4	9.4	78.5
	5 = 'Social Studies'	12	8.1	8.1	86.6
	6 = 'Other'	20	13.4	13.4	100
	Total	149	100	100	

Table 1.7 displays the statistical information for the Teacher highly qualified

section of the survey results.

Table 1.7: Teacher Highly Qualified		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = 'Yes'	143	96	96	96
Valid	2 = 'No'	6	4	4	100
	Total	149	100	100	

Table 1.8 displays the statistical information for the Grade levels taught

section of the survey results.

Table 1.8: Grade levels taught		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = '6'	29	19.5	19.5	19.5
	2 = '7'	37	24.8	24.8	44.3
	3 = '8'	27	18.1	18.1	62.4
	4 = '6,7'	3	2	2	64.4
Valid	5 = '7,8'	3	2	2	66.4
	6 = '6,7,8'	32	21.5	21.5	87.9
	7 = 'Other'	18	12.1	12.1	100
	Total	149	100	100	

General Questions Regarding Students With ADHD

Nine general education questions regarding working with students with ADHD

were included.

(1) In an average class, how many students do you know or suspect as having ADHD?

Twenty-one participants or 14% felt there were 1 ADHD student in an average

classroom; 39 participants or 26% felt there were 2 ADHD student in an average

classroom; 50 participants or 34% felt there were 3 ADHD student in an average classroom; 20 participants or 13% felt there were 4 ADHD student in an average classroom; 15 participants or 10% felt there were 5 ADHD student in an average classroom; and 4 participants or 3% chose Other.

(2) From your experience, what do you estimate is the average ratio of boys to girls with ADHD? Eight participants or 5% felt the ratio was 1 boy to 1 girl; 40 participants or 27% felt the ratio was 2 boys to 1 girl; 48 participants or 32% felt the ratio was 3 boys to 1 girl; 38 participants or 26% felt the ratio was 4 boys to 1 girl; and 15 respondents or 10% selected Other.

(3) Do you feel you have enough training in ADHD to successfully teach students with ADHD? Sixty participants or 40% selected Yes, and 89 or 60% selected No.

 (4) Would you have taken a course in Interventions for ADHD and At-Risk Students while in pre-service teacher training? One Hundred twenty-three participants or 83% selected Yes, and 26 or 17% selected No.

(5) If offered, would you attend voluntary in-service training on ADHD? One hundred nine participants or 73% selected Yes, and 40 or 27% selected No.

(6) If available, would you complete voluntary on-line courses on ADHD? Seventy-six participants or 51% selected Yes, and 73 or 49% selected No.

(7) How many hours per month do you collaborate with the special education staff? Seven respondents or 5% selected Never; 26 respondents or 17% selected less than 1 hour; 26 respondents or 17% selected 1 hour; 21 respondents or 14% selected 2 hours; 28 respondents or 19% selected 3 hours; and 41respondents or 28% selected Other.

(8) With interventions, do you feel most ADHD students are likely to be successful in the regular education classroom? One hundred forty-seven participants or 99% selected Yes, and 2 or 1% selected No.

(9) In general, do you feel students with ADD/ADHD should be pulled out from regular education classroom activities to work in small groups? Forty-six participants or 31% selected Yes, and 103 or 69% selected No.

Table 2 displays the statistical information for the Teacher's perception to

general questions regarding students with ADHD.

		Students having ADHD	Estimate ratio of boys to girls with ADHD	Enough training in ADHD	Pre-service course in Interventions	Voluntary in-service training on ADH	Voluntary on-line courses on ADHD	Hours per mo collaborate with the sped staff	ADHD interventions in reg ed successful	ADHD pulled out from reg ed to small groups
N	Valid	149	149	149	149	149	149	149	149	149
	Missing	0	0	0	0	0	0	0	0	0
Mean		2.77	2.95	1.6	1.17	1.27	1.49	5.46	1.01	1.69
Std. Error of Mean		0.101	0.077	0.04	0.031	0.036	0.041	0.489	0.009	0.038
Median		3	3	2	1	1	1	5	1	2
Mode		3	3	2	1	1	1	5	1	2
Std. Deviation		1.227	0.943	0.492	0.381	0.445	0.502	5.967	0.115	0.464
Variance		1.505	0.889	0.242	0.145	0.198	0.252	35.601	0.013	0.215
Skewness		0.237	-0.088	-0.401	1.733	1.056	0.041	8.361	8.543	-0.837
Std. Error of Skewness		0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis		-0.376	-0.645	-1.864	1.016	-0.898	-2.026	71.641	71.945	-1.318
Std. Error of Kurtosis		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range		6	4	1	1	1	1	60	1	1
Minimum		0	1	1	1	1	1	1	1	1
Maximum		6	5	2	2	2	2	61	2	2
Sum		412	439	238	175	189	222	813	151	252

Table 2.1 displays the statistical information on results of Teacher's

perception of the number of students having ADHD in the typical classroom.

Table 2.1: **Students having ADHD**		Frequency	Percent	Valid Percent	Cumulative Percent
	0	2	1.3	1.3	1.3
	1 = '1'	21	14.1	14.1	15.4
Valid	2 = '2'	40	26.8	26.8	42.3
	3 = '3'	50	33.6	33.6	75.8
	4 = '4'	20	13.4	13.4	89.3
	5 = '5'	15	10.1	10.1	99.3
	6 = 'other'	1	0.7	0.7	100
Total	149	100	100		

Table 2.2 displays the statistical information on results of Teacher's

perception of the estimate of the ratio of boys to girls with ADHD.

Table 2.2: **Estimate ratio of boys to girls with ADHD**		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = '1 to 1'	8	5.4	5.4	5.4
	2 = '2 to 1'	42	28.2	28.2	33.6
Valid	3 = '3 to 1'	53	35.6	35.6	69.1
	4 = '4 to 1'	42	28.2	28.2	97.3
	5 = 'other'	4	2.7	2.7	100
	Total	149	100	100	

Table 2.3 displays the statistical information on results of Teacher's

perception if they have enough training in ADHD.

Table 2.3: **Enough training in ADHD**		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = 'Yes'	60	40.3	40.3	40.3
Valid	2 = 'No'	89	59.7	59.7	100
	Total	149	100	100	

Table 2.4 displays the statistical information on results of Teacher's

perception of the whether they would have taken a pre-service course in

interventions for ADHD.

Table 2.4: **Pre-service course in Interventions**		Frequency	Percent	Valid Percent	Cumulative Percent
	1 = 'Yes'	123	82.6	82.6	82.6
Valid	2 = 'No'	26	17.4	17.4	100
	Total	149	100	100	

Table 2.5 displays the statistical information on results of Teacher's

perception of the whether they would take in-service training in interventions

for ADHD.

Table 2.5: Voluntary in-service training on ADHD		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	109	73.2	73.2	73.2
	2 = 'No'	40	26.8	26.8	100
	Total	149	100	100	

Table 2.6 displays the statistical information on results of Teacher's

perception of the whether they would take on-line courses in interventions

for ADHD.

Table 2.6: Voluntary on-line courses on ADHD		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	76	51	51	51
	2 = 'No'	73	49	49	100
	Total	149	100	100	

Table 2.7 displays the statistical information on results on the number of

hours per week teachers collaborate with special education staff.

Table 2.7: Hours per month collaborate with the sped staff		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'never'	3	2	2	2
	3 = '1'	1	0.7	0.7	2.7
	4 = '2'	50	33.6	33.6	36.2
	5 = '3'	64	43	43	79.2
	6 = 'other'	28	18.8	18.8	98
	8	1	0.7	0.7	98.7
	50	1	0.7	0.7	99.3
	61	1	0.7	0.7	100
	Total	149	100	100	

Table 2.8 displays the statistical information on teacher perceptions on

whether ADHD students can be successful in the regular education

classroom.

Table 2.8: ADHD interventions in reg ed successful		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	147	98.7	98.7	98.7
	2 = 'No'	2	1.3	1.3	100
	Total	149	100	100	

Table 2.9 displays the statistical information on teacher perceptions on

whether ADHD students should be pulled from regular education classrooms

into small groups.

Table 2.9: ADHD pulled out from reg ed to small groups		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	46	30.9	30.9	30.9
	2 = 'No'	103	69.1	69.1	100
	Total	149	100	100	

<u>Interventions</u>

The survey contained sixteen classroom intervention questions regarding the

effectiveness of each intervention. A likert scale was utilized with ratings of "used and

effective," "used and somewhat effective," "used but not effective," and "not used."

Additionally, respondents were given the option of a written qualitative response

regarding intervention and the reasons behind why teachers feel the way they do

regarding the seventeen classroom interventions for students having ADHD.

(1) Regarding Reinforcement of Positive Behaviors Intervention, 48 teachers or 32%

selected Effective; 91 teachers or 61% selected Somewhat Effective; 5 teachers or 3%

selected Not Effective; and 5 teachers or 3% are Not Used.

(2) Regarding Self-Monitoring/Self Evaluation, 19 teachers or 13% selected Effective; 67 teachers or 45% selected Somewhat Effective; 30 teachers or 20% selected Not Effective; and 33 teachers or 22% are Not Used.

(3) Regarding Peer-Tutoring, 39 teachers or 26% selected Effective; 81 teachers or 54% selected Somewhat Effective; 12 teachers or 8% selected Not Effective; and 17 teachers or 11% are Not Used.

(4) Regarding Shortened Assignments, 43 teachers or 29% selected Effective; 66 teachers or 44% selected Somewhat Effective; 10 teachers or 7% selected Not Effective; and 30 teachers or 20% are Not Used.

(5) Regarding Audio Tapes/Devices, 29 teachers or 19% selected Effective; 31 teachers or 21% selected Somewhat Effective; 4 teachers or 3% selected Not Effective; and 85 teachers or 57% are Not Used.

(6) Regarding Read Aloud, 54 teachers or 36% selected Effective; 71 teachers or 48% selected Somewhat Effective; 4 teachers or 3% selected Not Effective; and 20 teachers or 13% are Not Used.

(7) Regarding Extended Time, 44 teachers or 30% selected Effective; 66 teachers or 44% selected Somewhat Effective; 24 teachers or 16% selected Not Effective; and 15 teachers or 10% are Not Used.

(8) Regarding Computer-Based Instruction, 52 teachers or 35% selected Effective; 56 teachers or 38% selected Somewhat Effective; 4 teachers or 3% selected Not Effective; and 37 teachers or 25% are Not Used.

(9) Regarding Frequent Feedback, 70 teachers or 47% selected Effective; 66 teachers or 44% selected Somewhat Effective; 5 teachers or 3% selected Not Effective; and 8 teachers or 5% are Not Used.

(10) Regarding Ignoring Inconsequential Behavior, 53 teachers or 36% selected Effective; 75 teachers or 50% selected Somewhat Effective; 12 teachers or 8% selected Not Effective; and 9 teachers or 6% are Not Used.

(11) Regarding Teacher Positioning, 94 teachers or 63% selected Effective; 46 teachers or 31% selected Somewhat Effective; 3 teachers or 2% selected Not Effective; and 6 teachers or 4% are Not Used.

(12) Regarding Modified Assignments, 41 teachers or 28% selected Effective; 66 teachers or 44% selected Somewhat Effective; 6 teachers or 4% selected Not Effective; and 36 teachers or 24% are Not Used.

(13) Regarding Slower Pacing, 36 teachers or 24% selected Effective; 57 teachers or 38% selected Somewhat Effective; 16 teachers or 11% selected Not Effective; and 40 teachers or 27% are Not Used.

(14) Regarding Specific Agenda/Daily Schedule, 47 teachers or 32% selected Effective; 49 teachers or 33% selected Somewhat Effective; 8 teachers or 5% selected Not Effective; and 45 teachers or 30% are Not Used.

(15) Regarding Parent-Teacher Communication, 71 teachers or 48% selected Effective; 67 teachers or 45% selected Somewhat Effective; 8 teachers or 5% selected Not Effective; and 3 teachers or 2% are Not Used.

(16) Regarding Opportunities for Physical Movement, 91 teachers or 61% selected

Effective; 47 teachers or 32% selected Somewhat Effective; 2 teachers or 1% selected

Not Effective; and 9 teachers or 6% are Not Used.

Table 3 displays the statistical information for teacher perception for the effectiveness of ADHD interventions.

		Reinforcement of Positive Behaviors	Self-Monitoring-Self Evaluation	Peer-Tutoring	Shortened Assignments	Audio Tapes-Devices	Read Aloud	Extended Time	Computer-Based Instruction	Frequent Feedback	Ignore inconsequential behavior	Teacher positioning intervention	Modified assignments intervention	Slower pacing intervention	Agenda Daily Schedule for ADHD Students	Parent-Teacher Communication	Opportunities for physical movement
N	Valid	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149	149
	Missing	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Mean		2.36	2.37	2.41	2.62	3.31	2.6	2.34	2.82	2.54	2.4	2.69	2.72	2.67	2.87	2.46	2.72
Std. Error of Mean		0.05	0.085	0.065	0.072	0.073	0.062	0.071	0.069	0.053	0.059	0.048	0.072	0.081	0.075	0.052	0.049
Median		2	2	2	2	4	2	2	3	3	2	3	3	3	2	3	3
Mode		2	2	2	2	4	2	2	2	3	2	3	2	2	2	3	3
Std. Deviation		0.605	1.042	0.797	0.881	0.892	0.752	0.867	0.839	0.652	0.724	0.58	0.878	0.989	0.913	0.632	0.594
Variance		0.366	1.086	0.635	0.777	0.796	0.565	0.751	0.703	0.425	0.525	0.336	0.771	0.979	0.833	0.399	0.352
Skewness		0.573	0.409	0.504	0.215	-0.882	0.413	0.236	0.075	0.059	0.208	-0.473	0.221	0.023	-0.162	-0.267	-0.215
Std. Error of Skewness		0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis		0.259	-1.014	-0.217	-0.87	-0.571	-0.567	-0.559	-1.056	-0.217	-0.146	0.264	-1.083	-1.142	-1.045	-0.304	0.043
Std. Error of Kurtosis		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range		3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
Minimum		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maximum		4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
Sum		351	353	359	391	493	388	348	420	379	357	401	405	398	427	367	405

Table 3.1 displays the statistical information on results on teacher perception

as to the effectiveness of Reinforcing Positive Behaviors.

Table 3.1: Reinforcement of Positive Behaviors		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	5	3.4	3.4	3.4
	2 = 'Used and somewhat effective'	91	61.1	61.1	64.4
	3 = 'Used and effective'	48	32.2	32.2	96.6
	4 = 'Not used'	5	3.4	3.4	100
	Total	149	100	100	

Table 3.2 displays the statistical information on results on teacher perception

as to the effectiveness of Self-Monitoring Behavior.

Table 3.2: **Self-Monitoring-Self** **Evaluation**		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	30	20.1	20.1	20.1
	2 = 'Used and somewhat effective'	67	45	45	65.1
	3 = 'Used and effective'	19	12.8	12.8	77.9
	4 = 'Not used'	33	22.1	22.1	100
	Total	149	100	100	

Table 3.3 displays the statistical information on results on teacher perception

as to the effectiveness of Peer-Tutoring.

Table 3.3: Peer-Tutoring		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	12	8.1	8.1	8.1
	2 = 'Used and somewhat effective'	81	54.4	54.4	62.4
	3 = 'Used and effective'	39	26.2	26.2	88.6
	4 = 'Not used'	17	11.4	11.4	100
	Total	149	100	100	

Table 3.4 displays the statistical information on results on teacher perception

as to the effectiveness of Shortened Assignments.

Table 3.4: Shortened Assignments		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	10	6.7	6.7	6.7
	2 = 'Used and somewhat effective'	66	44.3	44.3	51
	3 = 'Used and effective'	43	28.9	28.9	79.9
	4 = 'Not used'	30	20.1	20.1	100
	Total	149	100	100	

Table 3.5 displays the statistical information on results on teacher perception

as to the effectiveness of Audio Tapes-Devices.

Table 3.5: Audio Tapes-Devices		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	4	2.7	2.7	2.7
	2 = 'Used and somewhat effective'	31	20.8	20.8	23.5
	3 = 'Used and effective'	29	19.5	19.5	43
	4 = 'Not used'	85	57	57	100
	Total	149	100	100	

Table 3.6 displays the statistical information on results on teacher perception

as to the effectiveness of Read Aloud.

Table 3.6: **Read Aloud**		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	4	2.7	2.7	2.7
	2 = 'Used and somewhat effective'	71	47.7	47.7	50.3
	3 = 'Used and effective'	54	36.2	36.2	86.6
	4 = 'Not used'	20	13.4	13.4	100
	Total	149	100	100	

Table 3.7 displays the statistical information on results on teacher perception

as to the effectiveness of Extended Time.

Table 3.7: **Extended Time**		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	24	16.1	16.1	16.1
	2 = 'Used and somewhat effective'	66	44.3	44.3	60.4
	3 = 'Used and effective'	44	29.5	29.5	89.9
	4 = 'Not used'	15	10.1	10.1	100
	Total	149	100	100	

Table 3.8 displays the statistical information on results on teacher perception
as to the effectiveness of Computer-Based Instruction.

Table 3.8: Computer-Based Instruction		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	4	2.7	2.7	2.7
	2 = 'Used and somewhat effective'	56	37.6	37.6	40.3
	3 = 'Used and effective'	52	34.9	34.9	75.2
	4 = 'Not used'	37	24.8	24.8	100
	Total	149	100	100	

Table 3.9 displays the statistical information on results on teacher perception

as to the effectiveness of Frequent Feedback.

Table 3.9: **Frequent Feedback**		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	5	3.4	3.4	3.4
	2 = 'Used and somewhat effective'	66	44.3	44.3	47.7
	3 = 'Used and effective'	70	47	47	94.6
	4 = 'Not used'	8	5.4	5.4	100
	Total	149	100	100	

Table 3.10 displays the statistical information on results on teacher

perception as to the effectiveness of Ignoring Inconsequential Behaviors.

Table 3.10: **Ignore inconsequential** **behavior**		Freque ncy	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	12	8.1	8.1	8.1
	2 = 'Used and somewhat effective'	75	50.3	50.3	58.4
	3 = 'Used and effective'	53	35.6	35.6	94
	4 = 'Not used'	9	6	6	100
	Total	149	100	100	

Table 3.11 displays the statistical information on results on teacher

perception as to the effectiveness of Teacher Positioning.

Table 3.11: Teacher positioning		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	3	2	2	2
	2 = 'Used and somewhat effective'	46	30.9	30.9	32.9
	3 = 'Used and effective'	94	63.1	63.1	96
	4 = 'Not used'	6	4	4	100
	Total	149	100	100	

Table 3.12 displays the statistical information on results on teacher

perception as to the effectiveness of Modified Assignments.

Table 3.12: Modified assignments intervention		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	6	4	4	4
	2 = 'Used and somewhat effective'	66	44.3	44.3	48.3
	3 = 'Used and effective'	41	27.5	27.5	75.8
	4 = 'Not used'	36	24.2	24.2	100
	Total	149	100	100	

Table 3.13 displays the statistical information on results on teacher

perception as to the effectiveness of Slower Pacing.

Table 3.13: Slower pacing intervention		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	16	10.7	10.7	10.7
	2 = 'Used and somewhat effective'	57	38.3	38.3	49
	3 = 'Used and effective'	36	24.2	24.2	73.2
	4 = 'Not used'	40	26.8	26.8	100
	Total	149	100	100	

Table 3.14 displays the statistical information on results on teacher

perception as to the effectiveness of Agenda/Daily Schedule.

Table 3.14: Agenda Daily Schedule for ADHD Students		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	8	5.4	5.4	5.4
	2 = 'Used and somewhat effective'	49	32.9	32.9	38.3
	3 = 'Used and effective'	47	31.5	31.5	69.8
	4 = 'Not used'	45	30.2	30.2	100
	Total	149	100	100	

Table 3.15 displays the statistical information on results on teacher

perception as to the effectiveness of Parent-Teacher Communication.

Table 3.15: Parent-Teacher Communication		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	8	5.4	5.4	5.4
	2 = 'Used and somewhat effective'	67	45	45	50.3
	3 = 'Used and effective	71	47.7	47.7	98
	4 = 'Not used'	3	2	2	100
	Total	149	100	100	

Table 3.16 displays the statistical information on results on teacher

perception as to the effectiveness of Opportunities for Physical Movement.

Table 3.16: Opportunities for physical movement		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Used but not effective'	2	1.3	1.3	1.3
	2 = 'Used and somewhat effective'	47	31.5	31.5	32.9
	3 = 'Used and effective'	91	61.1	61.1	94
	4 = 'Not used'	9	6	6	100
	Total	149	100	100	

Qualitative Responses

Four narritive questions were included in the survey regarding (1) problems and

hindrances to co-teaching and (2) collaboration with special education staff, (3)

hindrances to consulting with school guidance counselors, and (4) how teachers differentiate instruction for ADHD students.

(1) Regarding problems associated with co-teaching with a special education teacher, of the 149 survey participants 101 teachers responded to this question; 48 did not responded or put "NA" or indicated they had not previously co-taught. Of the ones who responded, 45 indicated "Yes" there are problems associated with co-teaching with a special education teacher; another 56 respondents indicated there were no problems in this area. While the raw numbers may indicate most teachers believe co-teaching with special education is not problematic, the intent of the question was to find areas that could make co-teaching more effective.

Categories for this question included a) no response from 48 respondents, b) no, the respondents did not feel there were problems associated with co-teaching with a special education teacher from 56 responses, c) yes, the respondents felt there were hindrances based on time to plan together from 6 responses, d) yes, the respondents felt there were hindrances based on understaffing and lack of subject matter knowledge of special education teachers from 21 responses, and e) yes, the respondents felt there were hindrances based on criticism of special education staff practices, based on personality, teaching philosophy, and territorial conflicts from 37 responses. The following are some of the individual responses from each category with the exceptions of the categories of no response and the "no" responses where the respondents did not feel there were hindrances to collaboration between general education and special education teachers. Some responses included items that would fit in more than one category; these responses were separated out by "…" and placed in the corresponding

category.

The following are a few of the individual responses in the area of hindrances based on time to plan together:

"There is not enough planning time provided to make it effective..."

"The problems with co-teaching are mainly a lack of collaborative time between teachers."

"…. I think the teachers need to plan together and know what is going on in the classroom. In the past, this has not happened."

The following are some of the individual responses in the area of hindrances based on understaffing and lack of subject knowledge of special education teachers:

"Just the extra effort that it takes for the special ed teacher to keep up with as many different classes as they go to."

"I am not assigned a special education teacher in any of my classes throughout the school day."

"I do not mind co-teaching; however I do not have a special education teacher in my classroom to co-teach with."

"I have an EA. She doesn't help me plan my lessons. I personally would not want to co-teach because I have my own style of teaching. Getting help on modifying assignments would be appreciated though."

"Yes, the SPED teachers do not co-teach with related art teachers. However, related art teachers are expected to teach reading, writing, and incorporate science, math, social studies into our lesson plans."

"The SPED teacher does not have ESL training, so she is limited in instructional suggestions that are appropriate for ESL students."

The following are some of the individual responses in the area of hindrances based on criticism of special education staff's practices, personality, teaching philosophy, and territorial conflicts:

"The only problem I have encountered is the co-teacher giving students answers."

"Many times, students rely on the special ed teacher and do not take responsibility for their own learning. They wait for the sped teacher to tell them what to do and keep track of their work."

"Often times the special education teacher is unaware of the academic demands placed on students and their expectations for the students are lower than that of the regular education teacher. Special education students are expected to make the same gains in achievement as regular education students."

"…The planning and instruction always falls on the regular ed teacher."

"One teacher is always going to be doing more work than the other and if there are conflicts regarding how you discipline it can be a nightmare."

"[Need] proper communication, clarification of roles, and professional respect."

"Only if the teachers do not get along or see eye to eye. There needs to be a professional relationship and agreement between the teachers."

"I think it is better for a teacher, especially of young students, to preserve to consistence and safety of a self-contained classroom without all the fragmented interruptions of special programs. I believe it disruptive for both the student and teacher."

"Teachers seem to be very territorial at times, and a "new" teacher coming into the classroom can seem a challenge."

"Yes, sometimes as a teacher I am just unsure as to how to utilize the other teacher."

(2) Regarding hindrances to collaboration with special education staff, of the 149 survey participants 102 teachers responded to this question; 47 did not respond or put "NA" or indicated they had not previously co-taught. Of the ones that responded, 46 indicated "Yes" there are hindrances to collaboration with special education teachers, another 56 respondents indicated there were no problems in this area. While the raw numbers may indicate collaboration with special education staff is not problematic, the intent of the question was to look at areas of hindrances to collaboration.

Categories for this question included a) no response from 47 respondents, b) no, the respondents did not feel there were hindrances to collaboration between general education and special education teachers with 56 responses, c) yes, the respondents felt there were hindrances based on time to collaborate with 26 responses, d) yes, the respondents felt there were hindrances based on staffing, resources, and demands placed on special education staff with 8 responses, and e) yes, the respondents felt there were hindrances based on criticism of special education staff's practices and personality conflicts with 27 responses. The following are some of the individual responses from each category with the exceptions of the categories of no response and the "no" responses where the respondents did not feel there were hindrances to collaboration between general education and special education teachers. Some responses included items that would fit in more than one category; these responses were separated out by "…" and placed in the corresponding category.

The following are a few of the individual responses in the area of hindrances based on time to collaborate:

"Finding the time to collaborate during the day is nearly impossible. After school, teachers already have so much that has been added to their day like PLC meetings, new evaluations, ball games to work, beta meetings and many other things."

"My planning time is not the same as the SPED teacher."

"Schedules are a hindrance to collaboration. All collaboration is expected outside of the school day and many teachers are already working 9 to 10 hour days trying to plan, teach, grade, analyze test scores, provide intervention, lead or participate in PLCs, learn about and integrate Common Core Standards with State Standards, pilot new ELA Common Core Standards, sponsor extracurricular activities, engage their community, and police what their students are eating and drinking at school!"

"Time in the day to fully prepare special education teacher to see multiple assignments and lessons from multiple teachers--collaboration time not as available as wish could be."

The following are a few of the individual responses in the area of hindrances based on staffing, resources, and demands placed on special education staff:

"Yes, they (special educators) have mountains of paperwork to do and then meetings and classes to teach when they are finished with that."

"Most times, our SPED teachers have the same planning as us, so we are able to collaborate with them. However, they also have things they need to get done, so time is not always utilized the best. We also don't get any PLC time with them to discuss interventions."

"The overload of Sped. teacher's cases."

"IEP meetings, crisis intervention can make it difficult for sped staff to find time to collaborate effectively. Sped teachers are expected to do a number of jobs for a wide variety of students and finding time to collaborate effectively."

"Application of resources - having enough to go around."

"I don't know I do not get the opportunity."

"Only that it is hard to meet each students individual needs in a class of 30 or more."

The following are a few of the individual responses in the area of hindrances based on criticism of special education staff's practices and personality conflicts:

"Again this is based on the individual that is co-teaching. A good co-teacher is priceless in the classroom but a bad co-teacher will hurt the entire environment.'

"Different goals from regular and special education departments."

"Sometimes sped. staff have not always been participatory in their role and that is to the disadvantage of the student in my opinion."

"If an aide is sent with the student, sometimes the aide does too much work for them."

"The increase distraction takes away from the average student that needs it quiet to focus."

"I do feel there is a stronger need for more input into the lessons, and that Sped teachers should TEACH lesson regularly in the classroom."

"Sped. staff seems to "baby" students and that doesn't allow for them to persevere."

"Some special ed teachers do not always work as a team with the classroom teacher causing respect issues."

"Sometimes...the pacing can be slowed for the reg ed students."

"I only have consult sped students so there is very little collaboration with the sped staff."

"They don't really collaborate with exploratory teachers."

"There will be problems if the special education teacher isn't as knowledgeable as the regular education teacher or doesn't have the same expectations for behavior and/or academics…"

"Special ed and general ed teachers typically speak different languages."

(3) Regarding hindrances of consulting with school counselors, of the 149 survey participants, 100 teachers responded to this question; 49 did not respond or put "NA" or indicated they did not observe hindrances to consulting with school counselors. Of the ones that responded, 30 indicated "Yes" there are hindrances of consulting with school counselors, another 70 respondents indicated there were no problems in this area. The raw number indicate most teachers feel there are few hindrances of consulting with school counselors, however, the intent of the question was to find hindrances of consultation with counselors.

Categories for this question included a) no response from 49 respondents , b) no, the respondents did not feel there were hindrances of consultation with school counselors from 70 responses, c) yes, the respondents felt there were hindrances based on time from 15 responses, d) yes, the respondents felt there were hindrances based on staffing, lack of training, demands placed on counselors, and utilization of special education staff with 12 responses, and e) yes, the respondents felt there were hindrances based on effort, or personality on the part of counselors with 13 responses. The following are some of the individual responses from each category with the

exceptions of the categories of no response and the "no" responses where the respondents did not feel there were hindrances to consultation with school counselors. Some responses included items that would fit in more than one category; these responses were separated out by "…" and placed in the corresponding category.

The following are some individual responses in the area of hindrances based on time:

"Yes, our counselor is so busy she has problems making time."

"There are time constraints for the regular education teacher."

"With all of the responsibilities of a regular education teacher, there is limited time to consult with the school counselor…"

The following are some individual responses in the area of hindrances based on staffing and training, demands placed on counselors, and utilization of special education:

"I have never consulted the school counselors regarding a student with ADHD, only the special education teachers."

"…They are referred back to sped."

"Yes, we have only a part time school counselor."

"The counselors aren't trained in how to work with these students."

"School counselors are typically not available to help with needs of ADHD students."

"The counselors are reluctant to deal with students. Their work load is already high."

The following are some individual responses in the area of hindrances based on lack of effort, or personality on the part of counselors:

"A lack of effort on both sides- counselor and general education teacher.

"It depends of the role of the guidance counselor and the relationship you have with them."

"Many times these students are considered a behavior problem, so issues are written off and not dealt with."

"School counselors sometimes do not have a sense of urgency to act when a teacher points out a need of a student. That is likely due to the fact they are not directly affected by it, but it does add to some frustration in dealing with student issues."

"... Also, the school counselor may not be living in the real world and may only give theoretical solutions to the problem."

"The process to get students diagnosed with ADHD or to get SPED or 501 services are too long and aren't always in the best interest of the student."

(4) Regarding specific ways to differentiate instruction for students with ADHD, of the 149 survey participants 89 teachers responded to this question; 60 did not respond. A large number of responses stated they differentiate using one or more of the interventions previously discussed in the survey. Categories for this question included a) no response from 60 respondents, b) repeated interventions found in the quantitative section of this survey from 17 respondents, c) differentiating based on the physical environment with 23 responses, d) differentiating based on accommodations with 39 responses, and e) differentiating based on modifications with 10 responses. The following are some of their individual responses from each category with the exceptions of the categories of no response and repeated interventions from the survey. Some response included items that would fit in more than one category; these responses were separated out by "…" and placed in the corresponding category.

The category for differentiating based on the physical environment included items suggesting classroom changes and elements outside instructional accommodations lesson modification. The following are some of the individual responses in this area:

"Let them take lots of breaks."

"Cheap timers are an amazing tool to help them to stay focused. Sometimes these children welcome a quiet place to work. I try not to worry too much about wiggling but give them opportunity to move. The student and I often have key words like "focus" that bring them back."

"Use small groups if possible;…"

"Allowing them to stand and work."

"Giving them something to keep hands busy, i.e. stress balls, etc."

"High visual content."

"Project-based learning helps, small groups help, hands-on activities help, and physical motions definitely helps."

"…preferential seating,…" …, and placing a schedule of the day's events on the students desk so they can check it off."

"Special seating, acknowledging student frequently, redirecting student, praise when student uses self-control."

"If you are patient and get to know them, you can see what works for them, and it may not be what necessarily you think works best for you. You need to find a balance."

"Offer stress relievers (stress ball, clay)."

"Patience..."

"Consistent monitoring of what they are doing and identifying what works for that particular student."

"I do think some modification of assignments are helpful. I think being patient with the student but not allowing them to get out of learning. Students with ADHD need to learn how to function with their condition. They will not get special work assignments in the real world. So, we need to help them learn how to manage their symptoms."

The category for differentiating based on accommodations related to direct instructional practices and strategies. The following are some of the individual responses in this area:

"… I also have them write, write, write, and keep them very busy from bell to bell. Very little down time."

"Varying instructions."

"The main thing is to know what works with each individual student, and not try a blanket effect."

"Use power point, but have a copy with the printable note version to the side. So they are still writing and practicing math questions, but not get over whelmed with the copying from board."

"Pull students for a small group of instructions- to work maybe one-on –one while other student are working independently."

"Student choice of activities of equal educational value."

"One-on-one with EA or sped teacher or another student."

"I sometimes give them a specific task that they have to do to help with before or after our class."

"Small group; one on one instruction; hands on assignments."

"Recording instruction to be viewed/listened to on the computer."

"Chunking the class period so that activities are changing every few minutes. This changes the pace and keeps focus."

"Hands-on, auditory, visual, kinesthetic."

"…Create as much visible as possible, and eliminate the need for writing."

"Adhere to IEPs, discuss effective strategies with past teachers, ask special education for best practices."

"… peer tutoring."

The category for differentiating based on modifications related to instructional lessons and assignments only. The following are some of the individual responses in this area:

"Compass [computer-based] learning."

"I do a lot of in-class assignments where students can get answers checked after completing 5-6 problems. This helps with frequent movement, getting immediate feedback, and making adjustments to the assignment for the child depending on the progress on the assignment. It gives these students a short goal to focus on instead of getting bogged down with a huge task."

"Little homework;…"

"Opportunities to change activities."

"I take into consideration … the topic being discussed and foresee problems that may occur and lastly be adaptable because you never know what will happen."

Appendix E, "Interventions for Differentiating Instruction with ADHD Students",

contains interventions found in the survey and suggestions from respondents.

Chapter 5 - Discussion

This research project examined the following questions: 1) What are teachers' attitudes toward working with students with ADHD? 2) How do teachers feel about the effectiveness of specific intervention for students with ADHD? And finally, 3) and What interventions, identified in research as effective are not being used by teachers, and why is this so?

The null hypothesis used in this research stated, "There is no relationship between teacher perception score (independent variable) and specific intervention score (dependent variable)." The two fundamental research questions are: "What do teachers think about the effectiveness of specific interventions, methods, and strategies for students with ADHD?" Next, "How do teachers feel about the effectiveness of interventions for students with ADHD?"

Analysis of Survey Responses on Demographics and the General Questions

The survey participants appear to be representative of the teaching population nationally and indicate they are highly experienced and well trained. The research participants included 78% female and 22% male. The National Center for Education Statistics (NCES) reports 76% of teachers are female and 24% are males. The difference of 2% in the survey response and national statistics could be because a higher percentage of male teachers work in secondary education, whereas the pool of participants for this study generated from elementary education. Fifty-three percent of teachers in this survey held a master's degree or higher. Nationally, 52% of teachers held a masters or higher. Ninety-six percent of teachers in the survey were highly qualified. As part of the provisions of the No Child Left Behind Act (NCLB) (2001),

educators are required to be Highly Qualified in order to teach in core academic subject areas (http://www.state.tn.us/education/nclb/doc/NCLB_ImpPlan_08_18_05.pdf). The six teachers taking this survey who were not Highly Qualified included one new teacher, one was no longer teaching in the classroom, and four who taught Physical Education, Health, or Business. Almost 50% of the participants have been teaching 10 years or more while only 16% had been teaching 3 years or less. Seventy-eight percent of the participating teachers were 30 years or older.

Regarding the number of ADHD students in an average classroom, most often at 34%, teachers believed there were, at least, three students with ADHD. Twenty-six percent choose two, and 13% chose four. The National Center for Education Statistics states the average classroom size is 20 students. The Center for Disease Control and Prevention (CDC) has identified Tennessee as having 11.2% of youth ages four-seventeen diagnosed with ADHD. This approximates 2.4% students diagnosed with ADHD in the typical classroom. The survey question included the wording "how many do you know or suspect as having ADHD?" This implies the survey as including non-diagnosed students with ADHD and could easily account for a small increase between survey participant's' estimates and state averages. Additionally, the CDC reports the state of Tennessee has a higher rate of diagnosed cases of ADHD than other states; Tennessee ranks number 11 for all 50 states (http://www.cdc.gov/ncbddd/adhd/prevalence.html).

Regarding boys identified with ADHD to girls, the survey indicated a three-to-one ratio. The CDC estimates boys with ADHD at 16.6% and girls at 5.3% (http://nces.ed.gov/pubs2012/2012026/tables/table_46.asp). These survey data reveal

teachers believe boys are more at risk of ADHD than girls; this finding coincides with NCES data. Many researchers have verified the greater rate of boys with ADHD to girls (Bauermeister et al, 2007; Bruchmüller, Margraf, & Schneider, 2012; Jackson and King, 2004; and Reid, Maag, Vasa, and Wright ,1994). A survey participant stated, "As far as the ratio of boys to girls assumed or diagnosed with ADHD, I have read research on how, instead of labeling boys as more hyperactive, we should understand that males are physiologically designed to be more active and less able to sit still and quiet for lengths of time." This appears to be a succinct statement on the fundamental difference between boys and girls being physiological and it moves beyond mere labels into an understanding and empathy for all students.

In the area of training, data indicate educators believe they are not prepared to teach students with ADHD. Sixty percent of participants do not feel they are adequately trained in the area of ADHD interventions. Eighty-three percent of the educators reported they would, if offered, taken a pre-service course on ADHD and At-Risk interventions. Seventy-three percent indicated they would voluntarily take in-service training on ADHD. Fifty-one percent of teachers are amenable to enrolling in on-line courses to further their understanding of ADHD. These current findings support relevant research recommending school districts provide in-depth pre-and in-service professional development training for working specifically with ADHD students (Martinussen, Tannock and Chaban, 2011). An example of this thinking was illustrated by one of the participant's comments. "I believe teachers need more training on how to "actively" engage learners and less reason to label and rely on medication to provide the ideal student."

These survey results regarding collaboration, suggest there is a high discrepancy in what teachers perceive as collaboration or how they realistically use collaboration.

Regarding teaching ADHD students, teachers overwhelmingly felt ADHD students could be successful in regular education classes with appropriate interventions (99%), and a majority of respondents believed it was not effective to pull ADHD students from the regular education classroom (69%). These data demonstrate the regular educators' commitment to helping ADHD students and not merely placing the sole responsibility on the special education teacher. Educators' perceptions appear to indicate, in order to nurture learning, a willingness to genuinely interact with students with ADHD and not merely hand-off students with ADHD as problems to special educators. The Individuals with Disabilities Education Act (2004) calls for students to be educated in the 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 educational environment occurs only when the nature or severity of the disability of a child is such that education in regular classes with the use of supplementary aids and services cannot be achieved satisfactorily* (Public Law 108–446, 612(a)(5)).

Findings indicate the attitudes of participants in this survey support the intent of IDEA in regards to least restrictive environments. Students with a diagnosis of ADHD alone do not need special accommodations or restrictive environments, which may be the case

for other special education students. As one participant commented, "I believe most students can be successful in a class. However if the behaviors are distracting for others then they need to be removed. Also, there are times that the topic is taught better in small groups." Rightly, or wrongly, this appears to be the common rationale for small-groups and pullout programs. Possibly, a better solution is to have typical peers intermixed with small groups to facilitate peer tutoring, cooperative learning and modeling of acceptable behavior.

The demographic data clearly establish the participants are well-qualified, well diverse, and highly experienced teachers. Experienced, highly educated, professional teachers will provide the most effective education for students with ADHD, as well as for all students. The survey findings describing teaching students with ADHD align with state and national statistics regarding teaching students with ADHD. The teacher-participants are constant in practice with their peers across the nation. Considering these factors, it is expected the responses on interventions and to the qualitative questions are credible and most likely are representative of teachers in general.

<u>Analysis of Survey Responses on Interventions</u>

Teachers in the survey identified the following interventions most frequently as effective: Teacher Positioning (63%), Opportunities for Physical Movement (61%), Parent-Teacher Communication (48%), Frequent Feedback (47%), Read Aloud (36%), and Ignoring Inconsequential Behavior (36%). What is significant regarding these six most effective interventions mentioned by teachers in this survey is the strategies assume minimum or no planning on the part of the teacher. In their research, Nowacek and Mamlin (2007) found most teachers were simply getting-by without advance

planning and few classroom modifications were being made for ADHD students. Teacher-participants' responses illustrate this lack of advanced preparation. Regarding Teacher Positioning, one teacher stated, "Proximity helps to remind students of expectations and they are likely to self-correct off task behavior." Another teacher had this to say, "Same principle as locks on a door: if someone wants in, there is always a way (you may need to think extreme). But for 99.9% of people a lock is enough to deter them and keep them from making a poor decision if they decide to try it. If a student really wants to act up, they will find a way. But the teacher's location can deter most students just by forcing them to internalize their situation and reflect: 'the teacher is right next to me (says the student to him or herself), they haven't said anything, but I know that they are right there and I better not do anything to get their attention or get in trouble.'"

Regarding Physical Movement, one teacher stated, "These are the students who love to pass out work, stand instead of sit at their desk, run errands for me, etc. I take advantage of that extra energy, and it is a chance to appreciate them and give positive feedback." Another teacher stated, "Getting students' blood moving helps keep them awake and increases brain activity. Win/Win"

Regarding Parent-Teacher Communication, one participant stated, "Parent-Teacher Communication is very important to me, because we should be working together to help each student learn in a safe environment. Being in constant communications, the student will know that their parents are aware of how they are doing and what is expected of them." Another teacher responded; "Email parents anytime that homework is not turned in. Call or email when students do well on tests or

have a few days where they work hard or are more focused than normal."

Regarding Frequent Feedback, teacher-participants' responses included: "Any student enjoys hearing their progress, how they can improve, and how they have improved."… "Helps them to know they're on the right track- that I'm not going to let them sit and work for ten minutes and still get everything incorrect."… "Redirecting negative behaviors is easiest and is less threatening to the student." … "With the shorter attention spans, the quick turn-around for feedback is essential."… "They need to know where they stand. Whether positive or negative, they need to know that you see them as who they are and they are capable of doing the right thing."

Regarding Read Aloud, participants stated: "Keeps their attention longer."… "When I am discussing articles, I read aloud and that does help them to answer the questions I am asking. Their participation increases."… "It ensures that students must address each item (rather than hurrying through it/skipping it altogether)."… "The auditory learner loves this."… "This helps some of my students, but some are very reluctant to use this strategy. It helps the student stay on task and helps with pacing."… "We are consistently doing read aloud this can be beneficial for all students."

Regarding Ignoring Inconsequential Behavior, survey participants said: "Choose your battles; especially with students who struggle with typical classroom behavior."… "Behaviors that are not distracting and inconsequential are good coping mechanisms."… "Never helps to nitpick."… "Sometimes they are just looking for attention and when not given, they'll stop acting up. Other times, they'll act up more until they get the attention they need."… "Inconsequential behavior that doesn't affect the other learners does not need to take time out of classroom learning."

All students are different and diverse and this, as well, includes all students with ADHD (Mellor, 2009; Evans et al, 2005). Considering this difference within the ADHD population, the critical point to be made is despite the ADHD diagnosis, not all interventions work with all students. Teacher-participants clearly stated this notion; "I believe every student is unique and requires a unique response to every given situation. You can't pigeon-hole students with an ADHD label, so it is difficult to describe any set of strategies that might work best for these students." "There is no fail safe plan when handling ADD/ADHD. Every student is different. Sometimes this works on some, on some it doesn't."

 Considering these findings, the following interventions were identified as being effective or somewhat effective by 80% or more of the respondents: Teacher Positioning (94%), Reinforcement of Positive behaviors (93%), Parent-Teacher Communication (93%), Opportunities for Physical Movement (93%), Frequent Feedback (91%), Read Aloud (84%), and Peer-Tutoring (80%). Still, looking at these interventions, teachers are often not preplanning or extending additional effort into making these interventions successful. Nevertheless, while not guaranteed to succeed with all students with ADHD, teachers are willing to try these interventions in the hopes of improving student academic performance and classroom behavior.

Participant responses on Teacher Positioning, Reinforcement of Positive behaviors, Parent-Teacher Communication, Opportunities for Physical Movement, Frequent Feedback, and Read Aloud are noted above. Regarding Peer-Tutoring, teachers said: "If paired with students who take their work seriously, this can be an extremely successful tool."… "This is the most effective method of helping ADD/ADHD

students. They, just like most students, are more likely to listen and accept help from their peers. This does, however, probably require the most thought and careful planning. You have to make sure they are paired with someone that will help achieve the goals you have set for the assignment, and not just chat with them."… "It allows for one-on-one attention (and helps to hold my students' attention and engagement) that I can't give to every student at every moment."

Findings identified the following interventions as Not Effective: Self-Monitoring/Self Evaluation (20%), Extended Time (16%), and Slower Pacing (11%). Some participants commented students with ADHD would not be able to attend to task for Extended Time and they would get bored with Slower Pacing. Several teachers stated students were not able to Self-Monitor or Self Evaluate. Yet, recent research has shown, when self-monitoring and self-evaluation skills are taught to students with ADHD, performance is often improved (Schultz et. al (2011).   Schultz et al. recommended students with ADHD be taught Self-Evaluation skills in order for this intervention to be successful. The premise for the current study is student academic performance could be greatly enhanced by prior teaching of these specific skills.

Regarding Self-Monitoring/Self Evaluation, teacher-participants' included: "Most students at this age with ADD/ADHD don't have the maturity and self-control to stop their disruptive behavior." …"Students usually lack the ability to evaluate their own work. They often hurry through assignments and I have found it next to impossible to have them go back and re-do their work with the intensity necessary to self-monitor. Behaviorally, there are situations where they do very well with responsibility, but they need adult monitoring from caring adults."…"Most ADHD children start off with good

intentions, but the nature of the disability keeps them from record-keeping on their own very well. They are frustrated with "one more thing" to keep up with."

Regarding Extended Time, responses described the following: "I've used extended time frequently, but have rarely seen the extra time utilized fully."… "Most ADHD students can't sit for extended periods of time."… "More time is not likely to help a student that already has a hard time sitting for very long and/or paying attention for very long."… "For most of the students with ADHD I have taught, extended time did not make much of a difference. Often, these students rush through work/tests, only partially completing the assignment(s). Extra time does not seem to add to the quality of the output."… "In most cases, allowances of more time did not result in quantity or quality of work."… "Taken advantage of by students."

Regarding Slower Pacing, participants said: "I have not seen this make any difference."… "Can't always slow for entire group."… "Unfortunately, I have a lot to cover with a little time to do it so I have to keep my pace pretty quick. I do cover each topic twice which helps with those who didn't get it the first time."… "I try to work slower or repeat items if not understood, but sometimes it appears that students were not listening or zoning out."… "Waste the time and learning of other students."… "The material needs to come faster, not slower, for a lot of those students."… "I only have 48 minutes of class so no time to slow down."

Interventions teachers identified as not being used included Audio Tapes/ Devices (57%), Specific Agenda/Daily Schedule (30%), Slower Pacing (27%), and Computer-Based Instruction (25%). As noted by Nowacek and Mamlin (2007), interventions here require more time for planning and implementing the strategy.

Problems with Slower Pacing were mentioned above. Regarding Tapes/Devices, responses included, "Some students …. do not like how it singles them out."… 'Math doesn't lend itself as easily to using these devices on tests/quizzes."… "I think students need to learn at this level to work in groups. This type of instruction tends to segregate them from the other students."… "There is limited time in the school day, and most students won't take the time at home."... "It all depends on the content and how it is presented, they can still become distracted."… "I have never felt a need to use audio tapes."… "Just has not been requested or suggested in the past."… "When they are having trouble focusing, this is not effective."… "Don't have the resources."… "No access."

Regarding Specific Agenda/Daily Schedule, participants indicated, "Signing an agenda for a student can help. "It teaches several skills, including responsibility, that are beneficial. I have found it difficult to do this and not draw attention to the students, and sometimes that's okay." However, sometimes, the students don't want their peers to know they're "special," so it can be a bit ineffective then."… "If they can keep up with it, some find it helpful."… "If the student cares enough to use it."… "This works if students will fill in the agenda."… "Some of these students tend to lose the agendas on a regular basis."… "Only works when there is parental involvement."… "At this age, students don't care to use an agenda...and most parents don't seem to check it once they get home."... "This is only effective if the parents are holding their child accountable at home for filling out the agenda. If the parent never checks it, or does not have consequences for it not being filled out, the student won't take it seriously and won't do it."… "ADHD students usually don't write in their agendas."… "Few I have ever known actually kept up with it."

Regarding Computer-Based Instruction, teachers responded with: "Subjects didn't hold interests."… "I think students become too dependent on technology and lose creativity."… "Students need one-on-one attention from the teacher...not a machine."… "Not enough access to computers."… "I do not want to isolate a student to a computer." … "Still have trouble focusing sometimes."

Analysis of Survey Responses on the Qualitative Data

Voytecki defines differentiating instruction as a strategy that "meets the needs of ALL students by responding to their varying levels of background knowledge, skill readiness, language acquisition, learning styles, interests, and response modes" (Voytecki, 2001, Inclusion of Students with Exceptionalities section, para. 2). Many of the survey respondents when asked to give specific ways to differentiate instruction for students with ADHD restated an intervention previously as identified in the survey such as teacher positioning, positive reinforcement, reinforcement of positive behavior, physical movement, and parent communication. Even so, many suggested numerous additional ways to differentiate instruction for students with ADHD and this may be effective with many at-risk students. Teachers have an extensive array of choices to differentiate instruction for students in their effort to ensure each student succeeds. An extended list of the interventions for differentiating instruction, including the sixteen found in the survey and the numerous ones participants indicated were successful for them, is found in Attachment E.

For more than two decades, co-teaching remains a part of the classroom best practices (Friend & Reising, 1993; Bauwens & Hourcade, 1991). Defined as, "Two or more professionals with equivalent licensure or status are co-teachers, one who is a

general educator and one who is a special educator or specialist" (Friend & Hurley-Chamberlain, 2011, Is Co-Teaching Effective? Section, para. 3). However, in the real world of teaching, co-teaching instruction is not always this clearly represented.

For example, a special education assistant in the inclusion classes and not a certified special education educator may support a general education teacher where the special education instructor collaborates only on interventions and modifications. In addition where the certified special educator is in the classroom, they often feel they are visitors/support personnel in the general education classrooms rather than co-owners of the learning community.

Many teacher-participants describe positive experiences with co-teaching. Even so, the intent of the question was to find ways of making co-teaching between general and special educators more efficient and successful. The responses from teachers were themed and divided into three sections: What can school administration do to make co-teaching more efficient at their school? What can individual teachers do to strengthen co-teaching and make it more effective? What can teachers do together to make co-teaching most beneficial to student learning?

The administration sets the tone for co-teaching at the school. If administrators believe in co-teaching, their conviction and enthusiasm will filter down to teachers. Principals ensure special education support staff is spread evenly and effectively throughout the school and adequate staffing is available. Administrators provide time for general education teachers to have access to special education staff. Common planning periods made available for general and special education teachers to meet are essential. Good communication is emphasized from the top down. Classroom

interruptions are kept to a minimum. Because related arts are often eliminated from the communication loop with special education support, administrators ensure related arts teachers are informed with respect to student disabilities and potential effective interventions.

Individual teachers' attitudes and knowledge of their abilities is vital in making co-teaching effective. Teachers do their fair share and make time to plan together. By knowing the relevant academic curriculum, teachers are effective. Acceptance of different teaching styles and beliefs is essential for proactive instruction. Teachers support one another and do not criticize others' weaknesses. Teachers understand the difficulties of the other teacher and remain respectful. Teachers involved in co-teaching break the mindset of "it is my or their classroom." The learning community is shared and is not territorial. The co-teacher is a collaborator and not a threat. Both teachers expect students to accept responsibilities for individual and group learning, task completion, and acceptable dispositions. Teachers build rapport and dignify individual academic goals.

When two teachers come together to co-teach, they remember it is not about them: it is about the students they will lead together on an educational journey. They remember the "Co" in co-teaching stands for – cooperative. Effective co-teaching will only occur when both teachers share ideas, strategize, and plan together. Teachers establish specific responsibilities and define roles allowing students to assume ownership. A courteous relationship and a mutual respect for one another is crucial. Teachers are productive partners in ensuring each student succeeds. Teachers reduce distractions between the co-teacher and the students with whom they are working.

Teachers use the same techniques when working with challenging students to ensure consistency. There is agreement on methods of positive reinforcement. Discipline procedures are agreed upon and teachers reinforce each other, and do not allow students to see disagreements between teachers. Planning is not left to one teacher; expectations are shared. Educational assistants are utilized effectively ensuring they understand their roles and responsibilities.

Leonard and Leonard (2003) believe, "'Professional collaboration' is considered to occur when teachers work together regularly, share their knowledge, contribute ideas, and develop plans for achieving educational goals that are, principally in terms of improved student learning" (par. 3). With a consideration for this definition, the current survey asked about hindrances, or those things preventing professional collaborative engagements.

As reported by participants, the most common hindrance for the teacher was time for collaboration. Either the general education or the special education teacher does not have a "common" planning period; there was a lack of time in the school day. Some teachers stated they plan at lunch, before and after school hours, by text, or in the evenings. Teachers are pressed with Profession Learning Community (PLC) meetings, evaluations, ball games, beta meetings, bus duties, and many other time consuming priorities. Additionally, there is virtually no collaboration with elective teachers.

Many teachers noted the special education staff is often overworked and understaffed, responsible for abundance of paperwork, and over committed among administrators, teachers, and parents. One teacher-participant recalled special

education teachers must write and, "Attend IEP meetings, conduct crisis intervention for their students, modify assignments and complete many other related tasks for a wide variety of students while still finding time to collaborate effectively." It was also noted general education teachers are responsible for the whole class, not just the special education students. As one teacher explained, "Many general education teachers, Put in nine and ten hour days trying to plan, teach, grade, analyze test scores, provide intervention, lead or participate in PLCs, learn about and integrate Common Core Standards with State Standards, pilot new ELA Common Core Standards, sponsor extracurricular activities, engage their community, and police what their students are eating and drinking at school!"

The current data also indicate personalities are sometimes hindrances. Teachers do not always mesh. Sometimes there is a lack of effort on both sides. Level of expertise is sometimes a factor. Teacher's level of comfort with one another is sometimes a problem. There could be differing goals between regular and special education departments. The roles of teachers are not always clearly defined. It may seem like special education staff and general education teachers are speaking different languages. Current data suggested sometimes teachers believe they do not receive the respect the profession warrants.

Data also indicate direct criticism of special education staff. Special education staff members are not always participatory in their role. Special education teachers and educational assistants sometimes unnecessarily provide answers to tests or do too much work for students. The special education students distract general education students. Current data indicate special education teachers are not providing input for

lessons and are not teaching as often as possible. Special education teachers expect general education teachers to make modifications to assignments and tests for students with special needs in addition to managing the typical curriculum. Data revealed general education teachers believe special education instruction can at times "baby or slow" the pacing for the whole class.

DeSimone and Parmar (2006) described findings related to general and special education collaboration. They concluded with three recommendations. First, pre-service teachers require time observing and student teaching in an inclusive classroom. Second, it is critical for principals to provide general educators with specific training focused on specific academic topics and strategies and further, administrators ensure additional planning time. Third, it is helpful, for teachers to receive more resources to apply collaborative techniques with special education teachers in the classroom including how to effectively use educational assistants. From the results of the present survey, it would be well for teachers, administrators, and pre-service training programs to implement the three recommendations of DeSimone and Parmar. Even so, a fourth recommendation might include training on interpersonal skills to work through personality differences and criticism.

According to Tarver-Behring, Spagna, and Sullivan (1998), "The main purpose of consultation is to promote the successful implementation of full inclusion as children with disabilities enter general education classrooms. In particular, general education teachers require assistance to facilitate students' academic and social adjustment" (Tarver-Behring, Spagna, & Sullivan, 1998, para. 11). A majority of teachers in the current survey indicated they were not experiencing hindrances to consultation with

school counselors; however, there remained a group who were experiencing some difficulty.

The survey teacher-participants most often stated hindrances with counseling staff were lack of availability of counseling staff and diminished time. Current data indicate the counselors at their schools do not interact with students with ADHD; counselors rely on the special education department for consulting regarding ADHD students. Some data suggest counselors do not have direct contact with students, do not have a sense of urgency, may be unwilling to assist with behavior issues, or are just slow to respond.

Additionally data indicate school counselors are often consumed with testing duties, their caseloads are often high, and they are extremely busy. Nevertheless, teachers did have some direct criticism of school counselors. Often counselors are not trained to work with students with ADHD, nor are they knowledgeable on interventions for ADHD. Sometimes counselors may give theoretical or philosophical advice; teachers require real-world, practical and workable solutions to student issues. There appears to be some personality concerns as well. Data suggest a lack of effort for both the special and regular educators, inconsistency in counselor's attitudes', and an unwillingness to work with teachers.

Davis and Garrett (1998), suggest effective consultation from a counselor's point of view is to meet and get to know the faculty, consult often with teachers, observe classroom dynamics, and solicit the help of teachers. Both counselors and teachers can be proactive in discovering strategies and thereby, be more effective in providing services to students. Tarver-Behring, Spagna, & Sullivan (1998) believe it is essential

for teachers, counselors and special education staff to work as a team promoting the successful implementation of inclusion of children with disabilities. This notion extends to the inclusion of students with ADHD in regular education classrooms. In order to do so, regular educators and special education faculty, and school personnel work together to facilitate all children's learning.

Implications for Educational Practices

Renowned and inspirational professional development speaker and author, Rick Wormeli, states bluntly, "Some teachers have little space and resources, but they differentiate brilliantly and students soar. Some teachers have all the space and resources they need, but don't know how to use it effectively and students suffer"(Wormeli, 2005. p. 33). The mind-set of an effective teacher should be to ask: "Am I teaching so students best learn?" (p. 33). For Wormeli, this is half the meaning for differentiating instruction and determines what it is all about.

Interacting with the typical student with ADHD may consume significant amounts of a teacher's planning, implementation, and evaluation time. Nonetheless, the fore mentioned sixteen interventions in this survey and others are integral toward differentiating effectively toward a range of learning needs. Each student is unique and their learning needs varied. Therefore, teachers differentiate instruction according to each student's needs and abilities. Some interventions are easily utilized i.e. teacher positioning, frequent feedback, read aloud, ignoring inconsequential behavior, movement and reinforcement of positive behaviors. These strategies/interventions are systematically integrated. Some interventions require additional effort, time, and planning i.e. peer-tutoring, self-monitoring, audio devices, computer-based instruction,

specific agenda, and parent-teacher communication. Nonetheless, the rewards in the student's academic and behavioral gains prove worthwhile. Other interventions such as shortened assignments, slower pacing, extended time, modified assignments are utilized only for particular students in specific instances.

The classroom teacher is not the sole supplier of education knowledge in a student's life. It is a team effort whereby the classroom teacher is the primary professional to contact during the ongoing process to provide an environment where "students best learn."

Administrators set the tone for collaboration, consultation, scheduling, and communication, all of which were noted by survey respondents as impediments to effectively teaching students with ADHD. Hines (2008) outlines recommendations for principals including successful collaboration, open communication, sharing leadership, developing goals, and resolving conflicts. She declares forthrightly, "A positive attitude toward professional collaboration and team problem solving will increase the likelihood of successful inclusive education for all students. Principals have the power to influence each teacher's attitudes toward collaborative planning and instruction"(Hines, 2008, p. 278). This makes it possible for the general education teacher to share effective, ongoing, and respectful collaboration with special education staff. Eccleston (2010) sees four essential facets of collaboration: "Thoughtfulness, knowledge, compassion, and leadership as essential traits for special education professionals to improve upon if their collaborative work is to be effective. A reflective educator will review his/her practice and find his/her own strengths and needs and accordingly improve them.

Through this process, collaboration will be successful at serving the needs of exceptional students" (p. 45).

Survey respondents indicated consultations with school counselors often find them as unavailable or not effective. It is important for counselors to anticipate the needs of students and become aware of what services and guidance they have at their disposal. Warren and Dowden (2012) believe it is critical for counselors to develop evidence-based interventions, remain up-to-date on research, and increase student educational outcomes.

A majority, 60% of the teacher-participants in this survey, identified a lack of adequate training in the area of interventions for students with ADHD. As noted by Martinussen, Tannock, and Chaban (2011), teachers do lack training in ADHD and in their research. They conclude only 41% of general education teachers reported receiving adequate training in ADHD. The findings of the current study demonstrate with adequate training, general education teachers believe, as Martinussen, Tannock, & Chaban found, they "May increase their use of recommended behavior management approaches and instructional supports and strategies" (p 204). Improved behavior management and differentiated instruction produce a positive and effective classroom environment; this type of environment maximizes student learning.

The need for pre-service training in interventions for ADHD and At-Risk students was identified by 83% of the teachers in this study. Student teachers are often overwhelmed by "problem" students and often do not know how to provide what these students require to be successful. Bussing, Gary, and Leon (2002) reported only 50% of pre-service teachers receive training in ADHD. Lack of preparation in handling students

with ADHD will only increase the anxiety of first year teachers who are learning to maneuver the educational arena (observations, standardized testing, scheduling, and extra duties).

Survey respondents also identified an overwhelming willingness (73%) to participate in in-service training in this area. Even experienced teachers become frustrated with students with ADHD who continually disrupt class routines and act out to receive the attention of their peers. Professional development in this area would benefit teachers and students. This ADHD-information would reduce stress and increase time on task for all students. Zentall and Javorsky (2007) reported, "In-service education, regardless of type, was associated with improvements in educators' self-reports of willingness to learn about ADHD and confidence to teach students with ADHD and to include students with behavior and learning problems in their classrooms" (p.90). Adding training in interventions for ADHD and At-Risk students to district-wide in-service and professional development programs would support effective learning for all students.

Finally, half of the current sample of teachers indicated a willingness to voluntarily participate in on-line classes on ADHD interventions. Currently there are several reputable on-line classes with general information on ADHD including: http://www.universalclass.com/i/course/attention-deficit-disorders.htm.
http://www.addinschool.com/highschool.htm
http://www.help4adhd.org/en/education/teachers/teachtrain
Many online training websites contain only general information or there is a cost for the training. In an effort to improve teacher success with these students, local school

systems or state departments of education could provide online training or allow access to a commercial site without cost to the classroom and special education teachers.

<u>Limitations of this Study</u>

Some of the described interventions may have been unclear to teachers. In particular, it was evident some teachers interpreted the intervention of Read Aloud in different ways. The intent of the survey was to analyze students read aloud interventions; however, some understood this to be the teacher reading aloud to the student. A number of teachers indicated this in the comment section. Other researchers established both student and teacher reading aloud are valid interventions (Brooks, 2011; Fien, Santoro, Baker, Park, Chard, Williams, & Haria, 2011; Albright, & Ariail, 2005). A solution to refine this ambiguity is to revise the descriptions and provide illustrative examples.

In the area of collaboration with Special Education staff, data indicated a large range of responses. By narrowing the focus and providing greater detail for the term "collaboration," the range of responses would diminish.

Additionally, a limitation to this study is that the sample contained a relatively small number of teachers in suburban and rural areas of the southern United States. While it could be replicated for other geographic and demographic areas, the results may or may not be similar. Further research in this area, and an expanded survey to include increased numbers of participants in a range of diverse areas would be beneficial to the reliability of the findings.

<u>Conclusion</u>

With No Child left Behind giving way to Race To The Top and Common Core Standards, teachers find themselves in an ever changing environment of more formative and summative assessments, more standardized testing, more evaluations, more PLC meetings, and more training. Even so, inclusion of disabled students in regular education classrooms is not going away. Teachers will have students with learning disabilities, at-risk, and with ADHD; all of which who receive no direct special education support. Resources are imperative to providing instruction to meet these students' academic needs including a supportive and accommodating administration, collaboration with peers and special education teachers, consultation with counselors, and differentiating instruction with meaningful interventions. The result is a 21st century education where students with ADHD are successful, high achievers, and are able to access the tools to be effective as life-long learners and citizens. In order for this to occur, regular classroom teachers require specific training, support, and collaboration. The responsibility to effectively educating students with ADHD is a school-wide commitment.

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Appendices

Request for Exemption

Middle Tennessee State University Institutional Review Board

You may not begin your research until the compliance office has given you an official letter of exemption!

Principal Investigator: Perry F. Louden, Jr.

Study Title: Survey of general education teachers' interventions with students having ADHD

Institution: Middle Tennessee State University

RESEARCHER INFORMATION

Attach documentation of Human Subjects Research training for <u>ALL</u> Investigators and <u>ALL</u> Faculty Supervisors. Internet Training Certificates can be obtained by completing the training www.citiprogram.org. Please email applications to compliance@mtsu.edu. **Students must have faculty mentors email their applications with statement of approval.**

Principal Investigator: Perry F. Louden, Jr.

Principal Investigator e-mail: pfl2a@mtmail.mtsu.edu

If Principal Investigator is a student, alternate e-mail: loudenp@rcschool.net

Principal Investigator Address: 5160 Hollow Springs Rd, Bradyville, TN 37026

Principal Investigator Telephone: 615-796-7020

Co-Investigator(s): N/A

If Principal Investigator is a student, Faculty Advisor Name:

Dr. Beverly Boulware, Reading Education, [Joan.Boulware@mtsu.edu] 615-898-2628, (Thesis Chair)
Dr. Kathleen Burriss, Interim Chair of Elem and Special Ed, [Kathleen.Burriss@mtsu.edu] 615-898-2323
Dr. Larry Burriss, School of Journalism, [Larry.Burriss@mtsu.edu] 615-898-2983

Faculty Advisor e-mail:

Faculty Advisor Address & Telephone:

Department or University Unit:

Investigator Status (For Each Investigator):

☐ **Faculty/Staff**   ☒ **Graduate**   ☐ **Undergraduate**   ☐ **Other**

Type of project: ☐ **Faculty/Staff research**   ☐ **McNair**   ☐ **URECA Scholar**
☒ **Thesis**   ☐ **URECA Assistant**   ☐ **Class Project**

1

**Those who are performing McNair, URECA Scholar, thesis, or faculty projects must complete the Social and behavioral basic training course. All other students may complete the "minimal risk" course. Students assisting professors may also complete the "min. risk" course.

1. **Study Information:**
   A. Give a brief synopsis of the research, including background information and rationale.
   Last spring, research was conducted on interventions, methods, and strategies teachers use with struggling ADD/ADHD middle school students. While much information was gained from the research, only a small sample was obtained. The information from last spring will be used as a pilot study, with contining researching in this area as part of the dissertation. This current survey will specifically address what interventions, methods, and strategies for students with ADD/ADHD general education teachers are using in their classrooms and why certain research-based strategies are not being used.

      Appendix A: Previous IRB approval letter
      Appendix B: CITI Collaborative Institutional Training Initiative
      Appendix C: Letter to Mr. Zago
      Appendix D: Emails to principals and educators
      Appendix E: Informed Consent Document
      Appendix F: Survey Questionaire

   B. Describe the subject population/ type of data/specimens to be studied.
      ☐ Prisoners (Note: Research involving prisoners is not eligible for exemption).
      ☐ Children (Note: Research involving children has more restrictive exemption criteria; see instructions).
      Other: General Education Middle School Teachers

   C. Describe any inclusion/exclusion criterion used to select participants.
      Participants will only be General Education Middle School Teachers

   D. Describe how you plan to obtain/contact the source of data/specimens and if these are publicly available. If not publicly available, describe how prior approval will be obtained before accessing this information (attach approval letter if available).
      1. Prior approval to use teachers from Rutherford County Schools will be requested through the Rutherford County Schools Board of Education.
      2. Additionally, referrals will be made by Dr. Burrisss and/or Dr. Boulware.

   E. Does this study involve the collection of existing records or data often referred to as "on-the-shelf" data [see 45 CFR 46.101 (b)(4)]? Describe how this data is collected, stored and de-identified.
      No

   F. Describe the recruitment process, including any advertisements, to be used for this study.
      School principals will forward by email to their general education teachers a request for participants.

NOTE: If the participants are to be drawn from an institution or organization (e.g., hospital, social service agency, prison, school, etc.) which has the responsibility for the participants, then documentation of permission from that institution must be submitted before final approval can be given.

If using the Psychology Research Pool: (http://mtsu.sona-systems.com/)
Provide a title, a brief abstract (one or two sentences describing the project) and a full description (including the risks, benefits, and any information necessary for students to make an informed decision about participating). These should be written exactly as they will appear to the Research Pool participants.

Title:

Brief Abstract:

Full Description:

G. Describe in detail the procedures to be used during this study. Be specific on the role of the subjects participating. What is your study's step by step process from subject contact to conclusion?
   1.   Obtain approval from RCS.
   2.   Obtain approval from prinipals.
   3.   Email request for pariticpants to prinicipals to forward to teachers.
   4.   Teachers will email back giving their consent.
   5.   The link to survey is emailed to teachers.
   6.   Teachers complete the survey and submit on-line.
   7.   The data obtained will be analyzed.
   8.   This data will be combined with the spring pilot study and the literature review for completion of the thesis.

H. Is this study affiliated with any other IRB-approved studies?
   ☐ No   ☒ Yes
   If "Yes", please list by IRB#: 12-234

I. Is this proposal associated with a grant or contract?
   ☒ No   ☐ Yes
   If "Yes", attach copy and list the funding source associated with the grant or contract.

J. Does this research involve any approved or unapproved FDA regulated items (including foods, including dietary supplements, that bear a nutrient content claim or a health claim, infant formulas, food and color additives, drugs for human use, medical devices for human use, biological products for human use, and electronic products.)
   ☒ No   ☐ Yes (Note: FDA regulated research has more restrictive exemption criteria; see instructions).

K. Will informed consent be obtained from participants?
   ☒ Yes   ☐ No

Explain your process of obtaining consent. If no, explain why not.
The Informed Consent forms will be emailed to particiapnts. By returning the email, they are concenting to participate in the survey.

2. Will Protected Health Information (PHI)[1] be accessed (used within MTSU) in the course of preparing for this research?

      ☒ No   ☐ Yes

If "No", skip to the Conflict of Interest statement on the next page.

STATEMENT OF AFFIRMATION

If Protected Health Information (PHI)[1] is accessed (used) in the course of preparing for this research the following 3 conditions must be met:

  1. The use or disclosure of the PHI is sought solely for the purpose of preparing this research protocol.

  2. The PHI will not be removed from the covered entity.

  3. This PHI is necessary for the purpose of this research study.

The above 3 conditions must be met to allow for the access (use) of PHI as "preparatory to research."

    A. Will a de-identified data set be created *(all 18 HIPAA identifiers must be removed, see list attached)*?

        ☐ No   ☐ Yes

    B. Will a limited data set be created?

        ☐ No   ☐ Yes *If "Yes", complete the MTSU "Data Use Agreement" below.*

The data use agreement below sets forth the terms and conditions in which the Covered Entity (MTSU) will allow the use and disclosure of a limited data set [2] to the Data Recipient (Principal Investigator). The limited data set must have direct identifiers removed, but may include town, city, and/or 5-digit ZIP codes as well as date elements (e.g., dates of birth, admission, discharge, etc.).

MTSU DATA USE AGREEMENT   ☐ **NOT APPLICABLE**

In addition to the Principal Investigator, identify all individuals who will be requesting authorization to access the limited data set:

Name of Institution and/or Individual	**Non-MTSU Data Use Agreement Required?***	
	☐ Yes	☐ No
	☐ Yes	☐ No
	☐ Yes	☐ No
	☐ Yes	☐ No
	☐ Yes	☐ No
	☐ Yes	☐ No

*A Non-MTSU data use agreement is required to disclose the limited data set to an Individual or an Institution outside of MTSU. A template is available on the website at
www.mtsu.edu/irb/irb_forms.shtml .

As the Principal Investigator of this study I agree:

Not to use or disclose the limited data set for any purpose other than the research project or as required by law.

To use appropriate safeguards to prevent use or disclosure of the limited data set other than as provided for by this Agreement.

To report to the Covered Entity (MTSU) any use or disclosure of the limited data set not provided for by this agreement, of which I become aware, including without limitation, any disclosure of PHI to an unauthorized subcontractor.

To ensure that any agent, including a subcontractor, to whom I provide the limited data set, agrees to the same restrictions and conditions that applies through this agreement to the Data Recipient with respect to such information.

Not to identify the information contained in the limited data set or contact the individual.

4. Potential Conflict of Interest

A. Is there a potential conflict of interest for the Principal Investigator or key research personnel? ***Assessment should include anyone listed as Principal Investigator, or other research personnel on page 1 of this application. Please note that the thresholds of ownership described below apply to the aggregate ownership of an individual investigator, his/her spouse, domestic partner and dependent children (e.g., if an investigator, his/her spouse, domestic partner and dependent children own together $10,000 or 5% worth of equities in the sponsor, it should be reported below). Do not consider the combined ownership of all investigators.***
☒ No
☐ Yes *If "Yes", the investigator must complete and submit the "Conflict of Interest Supplemental Form" with this application. The form and the protocol must be reviewed by the MTSU IRB.*
   NOTE: Although approval may be granted by the IRB, the Investigator may not proceed with the research until a final determination letter has been rendered by the IRB.

B. If "*Yes*", check all that apply:
☐ Compensation whose value could be affected by the study outcome.

☐ A proprietary interest in the tested product included but not limited to, a patent, trademark, copyright or licensing agreement, or the right to receive royalties from product commercialization.

☐ Any equity interest in the sponsor or product whose value cannot be readily determined through preference to public prices (e.g., ownership interest or stock options).

☐ Any equity interest in the sponsor or product that exceeds $10,000 or 5%.

☐ Significant payments or other sorts with a cumulative value of $10,000 made directly by the sponsor to any of the investigators listed on page 1 of this application as an unrestricted research or educational grant, equipment, consultation or honoraria.

Investigator Assurance and Compliance Statement

As the PI of this study I agree:
☒ To accept responsibility for the scientific and ethical conduct of this project;

☒ To ensure all investigators and key study personnel have completed the MTSU human subjects training program;

☒ To submit for approval any additions, corrections or modifications to the protocol or informed consent document to the IRB prior to the implementation of any changes; and

☒ This project will not be started until final approval has been granted from the IRB.

Application Checklist - Incomplete applications may result in delay of research!

Investigator(s): Please **read** and <u>initial</u> each item.

Checklist item	
Is all information typed?	
Is documentation of IRB training attached for each investigator and faculty supervisor?	
Is the investigator email address and other contact information included?	
If student research, is the faculty advisor email and other contact information included?	
Are surveys, questionnaires, tests, interview forms / scripts attached?	
Is the method of PARTICIPANT selection indicated?	
If using the Psychology Department PARTICIPANT pool, is information attached?	N/A
If a consent form is being used, is a copy of the consent form attached?	
For research involving minors, is an assent form attached?	N/A
For research at outside institutions (e.g., schools), are permission letters on official letterhead attached?	

 Protected Health Information (PHI): Protected health information (PHI) is individually identifiable health information that is or has been collected or maintained by a medical facility, including information that is collected for research purposes only, and can be linked back to the individual participant. Use or disclosure of such information must follow HIPAA guidelines.

Individually identifiable health information is defined as any information collected from an individual (including demographics) that is created or received by a health care provider, health plan, employer, and/or health care clearinghouse that relates to the past, present or future physical or mental health or condition of an individual, or the provision of health care to an individual or the past, present or future payment for the provision of health care to an individual and identifies the individual and/or to which there is reasonable basis to believe that the information can be used to identify the individual **(45 CFR 160.103).**

A covered entity (MTSU) may determine that health information is not individually identifiable (**De-identified**) health information only if all of the following identifiers of the individual or of relatives, employers, or household members of the individual are removed:
1. Names;
2. Any geographic subdivisions smaller than a State, including street address, city, county, precinct, zip code, and their equivalent geocodes, except for the initial three digits of a zip code;
3. All elements of dates (except year) for dates directly related to an individual (e.g., date of birth, admission);
4. Telephone numbers;

5. Fax numbers;
6. Electronic mail addresses;
7. Social security numbers;
8. Medical record numbers;
9. Health plan beneficiary numbers;
10. Account numbers;
11. Certificate/license numbers;
12. Vehicle identifiers and serial numbers, including license plate numbers;
13. Device identifiers and serial numbers;
14. Web Universal Resource Locators (URLs);
15. Internet Protocol (IP) address numbers;
16. Biometric identifiers, including finger and voiceprints;
17. Full-face photographic images and any comparable images; and
18. Any other unique identifying number, characteristic, or code.

[2] **Limited data set:** The limited data set is protected health information that **excludes** all above data elements with the exception of elements of dates, geographic information (not as specific as street address), and any other unique identifying element not explicitly excluded in the list above.

MIDDLE
TENNESSEE
STATE UNIVERSITY

March 6, 2012

Perry Louden
College of Education
pfl2a@mtmail.mtsu.edu , kathleen.burriss@mtsu.edu

Protocol Title: "Reaching the Struggling ADD/ADHD Middle School Student: How elective teachers can improve academic performance of students with ADD/ADHD"
Protocol Number: 12-234

Dear Investigator(s),

I have approved your study at the exempt level, pending we receive copies of your letters of permission from both the participating school principals and Rutherford county school district.

The exemption is pursuant to 45 CFR 46.101(b) (2). This is because your study consists of survey procedures, and information is obtained in such a manner that human subjects cannot be identified.

You will need to submit an end-of-project report to the Office of Compliance upon completion of your research. Complete research means that you have finished collecting data and you are ready to submit your thesis and/or publish your findings. Should you not finish your research within the three (3) year period, you must submit a Progress Report and request a continuation prior to the expiration date. Please allow time for review and requested revisions. Your study expires on March 6, 2015.

Any change to the protocol must be submitted to the IRB before implementing this change. According to MTSU Policy, a researcher is defined as anyone who works with data or has contact with participants. Anyone meeting this definition needs to be listed on the protocol and needs to provide a certificate of training to the Office of Compliance. Once your research is completed, please send us a copy of the final report questionnaire to the Office of Compliance. This form can be located at www.mtsu.edu/irb on the forms page.

Also, all research materials must be retained by the PI or faculty advisor (if the PI is a student) for at least three (3) years after study completion. Should you have any questions or need additional information, please do not hesitate to contact me.

Sincerely,

RE: Change Memo to IRB 12-234

Research Compliance Office [compliance@mtsu.edu]
Sent: Tuesday, November 27, 2012 4:09 PM
To: Perry F. Louden

Perry,

Thanks for the email. You will need to get approval from the Cannon County schools that you will be completing your research at. You can have them email us if that's easier. Let me know if you have any other questions.

Best,

Andrew Jones
Graduate Assistant
Office of Research Compliance
Middle Tennessee State University
(615) 494-8918

From: Perry F. Louden [mailto:pfl2a@mtmail.mtsu.edu]
Sent: Monday, November 26, 2012 9:36 PM
To: Research Compliance Office
Subject: Change Memo to IRB 12-234

I have been working on collecting surveys for the research study below, but have fallen far short of the target goal needed. I request approval to expand the participant pool to include Cannon County teachers and MTSU students who are currently teaching.

Thank you,

Perry Louden

MTSU Graduate student

Protocol Title: "Reaching the Struggling ADD/ADHD Middle School Student: How elective teachers can improve academic performance of students with ADD/ADHD"
Protocol Number: 12-234
Approval Date: March 6, 2012
End Date: March 6, 2015.

RE: Change Memo to IRB 12-234

Research Compliance Office [compliance@mtsu.edu]
Sent: Wednesday, November 28, 2012 2:48 PM
To: Perry F. Louden

Perry, As long as your protocol doesn't change this is fine.

I added MTSU students and Cannon County to your protocol via the email you forwarded me.

Let me know if you need anything else.

Thanks,

Andrew Jones
Graduate Assistant
Office of Research Compliance
Middle Tennessee State University
(615) 494-8918

From: Perry F. Louden [mailto:pfl2a@mtmail.mtsu.edu]
Sent: Wednesday, November 28, 2012 8:20 AM
To: Research Compliance Office
Subject: RE: Change Memo to IRB 12-234

Andrew, does this include the MTSU students?

From: Research Compliance Office [compliance@mtsu.edu]
Sent: Tuesday, November 27, 2012 4:09 PM
To: Perry F. Louden
Subject: RE: Change Memo to IRB 12-234

Perry,

Thanks for the email. You will need to get approval from the Cannon County schools that you will be completing your research at. You can have them email us if that's easier. Let me know if you have any other questions.

Best,

Andrew Jones
Graduate Assistant
Office of Research Compliance
Middle Tennessee State University
(615) 494-8918

RE: Change Memo to IRB 12-234

Research Compliance Office [compliance@mtsu.edu]
Sent: Monday, January 07, 2013 3:02 PM
To: Perry F. Louden

Perry,

Thanks for letting me know. I'll add this to your protocol.

Peace,

Andrew W. Jones
Graduate Assistant
Office of Research Compliance
Middle Tennessee State University
615-898-8918

From: Perry F. Louden [mailto:pfl2a@mtmail.mtsu.edu]
Sent: Monday, January 07, 2013 2:53 PM
To: Research Compliance Office
Subject: Change Memo to IRB 12-234

I have been working on collecting surveys for the research study below. Currently, I have 133 on-line surveys completed. My dissertation team would like me to add hard copies of the survey from MTSU students who are currently teaching middle school. I request approval to expand the participant pool to include hard copies of the survey from MTSU students.

Thank you,

Perry Louden

MTSU Graduate student

Protocol Title: "Reaching the Struggling ADD/ADHD Middle School Student: How elective teachers can improve academic performance of students with ADD/ADHD"
Protocol Number: 12-234
Approval Date: March 6, 2012
End Date: March 6, 2015.

CITI Collaborative Institutional Training Initiative

Human Research Curriculum Completion Report
Printed on 1/22/2012

Learner: Perry Louden (username: Pfl2a)
Institution: Middle Tennessee State University
Contact   Phone: 615-765-7567
Information   Email: Perry.louden@us.army.mil
  IRB Members:

Stage 1. Basic Course Passed on 01/22/12 (Ref # 7292013)

Required Modules	Date Completed	Score
Belmont Report and CITI Course Introduction	01/17/12	3/3 (100%)
Students in Research	01/17/12	8/10 (80%)
History and Ethical Principles - SBR	01/17/12	4/4 (100%)
Defining Research with Human Subjects - SBR	01/17/12	4/5 (80%)
The Regulations and The Social and Behavioral Sciences - SBR	01/19/12	5/5 (100%)
Assessing Risk in Social and Behavioral Sciences - SBR	01/19/12	4/5 (80%)
Informed Consent - SBR	01/22/12	5/5 (100%)
Privacy and Confidentiality - SBR	01/22/12	4/5 (80%)
Research with Prisoners - SBR	01/22/12	3/4 (75%)
Research with Children - SBR	01/22/12	3/4 (75%)
Research in Public Elementary and Secondary Schools - SBR	01/22/12	4/4 (100%)
International Research - SBR	01/22/12	3/3 (100%)
Internet Research - SBR	01/22/12	4/4 (100%)
Conflicts of Interest in Research Involving Human Subjects	01/22/12	4/5 (80%)

| The IRB Member Module - "What Every New IRB Member Needs to Know" | 01/22/12 | 6/7 (86%) |
| Middle Tennessee State University Module **DEMO** | 01/22/12 | no quiz |

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
Professor, University of Miami
Director Office of Research Education
CITI Course Coordinator

Return

RUTHERFORD COUNTY BOARD OF EDUCATION

Harry Gill, Jr., Director of Schools

2240 Southpark Boulevard
Murfreesboro, Tennessee 37128
Phone (615) 893-5812   Fax (615) 898-7940

March 14, 2012

Mr. Perry Louden
Rockvale Middle School
6543 Highway 99
Rockvale, TN 37153

Dear Mr. Louden,

Your request to conduct the research project to conduct a "Survey of Special Education Teacher's Techniques, Interventions, Strategies, and Methods" as it relates to ADD/ADHD has been approved. If you need to use a survey instrument within Rutherford County Schools it must be in compliance with Board of Education Policy 6.4001. I have included a link to that policy.

      http://www.tsba.net/production/detail.asp?iFile=14640&iType=6&iBoard=74

When research is conducted in the Rutherford County School System, it is standard procedure for the researcher to request the principal's approval, and if approved, data collection will also be subject to the time frame and conditions that the principal specifies. I emphasize that the research should not interfere with regular instructional program and that other school staff members' involvement be subject to his/her willingness to participate and the demands upon his/her time.

Sincerely,

Don Odom
Assistant Superintendent

RUTHERFORD COUNTY BOARD OF EDUCATION

Marvin D. Odom, Director of Schools

2240 Southpark Drive
Murfreesboro, Tennessee 37128
Phone (615) 893-5812   Fax (615) 898-7940

October 15, 2012

Mr. Perry Louden
Rockvale Middle School
6543 Highway 99
Rockvale, TN 37153

Dear Mr. Louden,

Your request to conduct the research project to conduct a "Survey of Special Education Teacher's Techniques, Interventions, Strategies, and Methods" as it relates to ADD/ADHD has been approved. If you need to use a survey instrument within Rutherford County Schools it must be in compliance with Board of Education Policy 6.4001. I have included a link to that policy.

http://www.boardpolicy.net/documents/detail.asp?iFile=14640&iType=6&iBoard=74

When research is conducted in the Rutherford County School System, it is standard procedure for the researcher to request the principal's approval, and if approved, data collection will also be subject to the time frame and conditions that the principal specifies. I emphasize that the research should not interfere with regular instructional program and that other school staff members' involvement be subject to his/her willingness to participate and the demands upon his/her time.

Sincerely,

RE: Research Project

Barbara Parker [Barbara.Parker@CCSTN.COM]

Sent: Wednesday, November 28, 2012 8:06 AM

To: Perry Louden

Perry,

You have my permission to contact the principals and conduct the survey in our system. I would be interested in knowing the results of this survey if you could keep me informed.

Thanks,

From: Perry Louden [mailto:LoudenP@rcschools.net]
Sent: Tuesday, November 27, 2012 9:08 PM
To: Barbara Parker
Cc: Kathleen Burriss; Andrew Jones
Subject: Research Project

Dear Mrs. Parker,
I am enrolled in the Education Specialist Program at Middle Tennessee State University. As part of the program, I am conducting research with an on-line survey in the area of Interventions for Students with ADD/ADHD.

Your permission allows me to send out an email to elementary school principals requesting they forward my request with a consent form to their general education teachers. From that point, teachers will complete the survey on Google Docs and respond back to me letting me know they completed it.

The surveys come back to me with only the date and time the teacher took the survey. No individual teacher can be identified. The findings of this study will be shared with other professionals in the field of education.

Attached you will find 1) Informed Consent email text and 2) the Survey Protocol.

If you have any questions or would like any further information about this project, please contact me at loudenp@rcschools.net or 615-796-7020. You may also contact my advisor, Dr. Kathleen Burriss, Interim Chair of Elementary and Special Education, at kathleen.burriss@mtsu.edu or 615-898-2323.

Thank you for taking the time to consider my request.

Perry Louden

Technology Engineering Education
Rockvale Middle School

Dear Principal,

MTSU and RCS have given me permission to conduct a research survey with General Education teachers regarding interventions for students with ADHD. Attached you will find the letter I received from Mr. Zago, the survey, and the consent form.

Both MTSU and RCS require that I have approval from the principals of the schools involved before I can begin. A simple return email will be sufficient. When I receive your return email, I would appreciate it if you could forward another email to general education teachers at your school.

Thank you, and I look forward to hearing from you,

Perry Louden
MTSU Graduate Student

Dear Educator,

I am enrolled in the Education Specialist Program at Middle Tennessee State University. As part of the program, I am conducting research in the area of Interventions for Students with ADD/ADHD.

This portion of my research consists of a simple on-line survey. If you choose to participate, simply reply to this email and you will receive the link to complete the survey. It should only take 10 to 20 minutes to complete the survey. All responses are confidential, and the gathering of information for this project offers no risk of any kind to you.

I would be greatly appreciative if you would take a few minutes out of your busy schedule to complete the survey. Attached is the full consent form if you would like a copy.

Thank you,

Perry Louden
MTSU Graduate Student

Middle Tennessee State University Institutional Review Board
Informed Consent Document for Interviews

Principal Investigator: Perry Louden

Study Title: Survey of general education teachers' interventions with students having ADHD

Institution: Middle Tennessee State University

The following information is provided to inform you about the research project and your participation in it. Please read this form carefully and feel free to ask any questions by email you may have about this study and the information given below. You may print a copy of this consent form for your records. Your participation in this research study is voluntary, and you are also free to withdraw from the survey at any time.

For additional information about giving consent or your rights as a participant in this study, please feel free to contact the MTSU Office of Compliance at (615) 494-8918.

1. **Purpose of the study:** You are being asked to participate in a research study because you are a middle school general education teacher and you may have or had students that you know have ADD/ADHD.

2. **Description of procedures to be followed and approximate duration of the study:**
   By returning this email, you are consenting to participate in this survey. You will receive a link to the survey. Click on the link and complete the survey. When finished, click the submit button, and it will be recorded. It should take you 10 to 20 minutes.

3. **What happens if you choose to withdraw from study participation:**
   Your survey responses will not be recorded.

4. **Contact Information:** If you should have any questions about this research study, please feel free to contact Perry Louden at 615-796-7020 or my Faculty Advisor, Kathleen Burriss, Interim Chair of Elementary and Special Education, at 615-898-2323. For additional information about giving consent or your rights as a participant in this interview, please feel free to contact the Office of Compliance at (615) 494-8918.

5. **Confidentiality:** No individual teacher can be identified from the survey responses. The findings of this study will be shared with MTSU faculty members and other professionals in the field of education, or possibly by government agencies, such as the Middle Tennessee State University Institutional Review Board, or the Federal Government Office for Human Research Protections.

6. **STATEMENT BY PERSON AGREEING TO PARTICIPATE IN THIS STUDY**
   I have read this informed consent document and the material contained in it has been explained to me verbally. I understand each part of the document, all my questions have been answered, and I freely and voluntarily choose to participate in this study.

   I understand by returning this email I give by my acknowledgement that I have been informed about this research project and I consent to participate in this survey.

Consent obtained by: Perry Louden
                         Graduate Student
                         MTSU

If you have trouble viewing or submitting this form, you can fill it out online:
https://docs.google.com/spreadsheet/viewform?fromEmail=true&formkey=dE1vLVk5UnRWU
WtwdFAyUmNQb01iTlE6MQ

A Survey of General Educators' Interventions for students with ADD/ADHD

The following survey is being used to identify certain interventions, strategies, and methods used by Middle School General Educators for their students who have ADD/ADHD.

Part A:

Please answer the following demographic information:

What is your Gender? *

- ○ Male
- ○ Female

What is your Age? *

- ○ 20-24
- ○ 25-29
- ○ 30-34
- ○ 35-39
- ○ 40-44
- ○ 45-49
- ○ 50 and Up

What is your undergraduatedegree in? *

- ○ Elementary Education
- ○ Special Education
- ○ Other: [   ]

What is your highest education level? *

- ○ BS/A
- ○ MS/A
- ○ EdS

- ○ PhD/EdD
- ○ Other: [   ]

How many years have you been teaching? *
- ○ 1-3
- ○ 4-9
- ○ 10-15
- ○ 16 and over

What primary certification do you hold? *
- ○ Elementary Education
- ○ Reading/LA
- ○ Math
- ○ Science
- ○ Social Studies
- ○ Other: [   ]

Are you Highly Qualified? *
- ○ Yes
- ○ No

What grade levels do you currently teach? *
- ○ 6
- ○ 7
- ○ 8
- ○ 6,7
- ○ 7,8
- ○ 6,7,8
- ○ Other: [   ]

Part B:

Please respond to the following general education questions:

In an average class, how many students do you know or suspect as having ADHD? *

- ○ 1
- ○ 2
- ○ 3
- ○ 4
- ○ 5
- ○ Other: [_____]

From your experience, what do you estimate is the average ratio of boys to girls with ADHD? *

- ○ 1/1
- ○ 1/2
- ○ 1/3
- ○ 1/4
- ○ Other: [_____]

Do you feel you have enough training in ADHD to successfully teach students with ADHD? *

- ○ Yes
- ○ No

Would you have taken a course in Interventions for ADHD and At-Risk Students while in pre-service teacher training? *

- ○ Yes
- ○ No

If offered, would you attend voluntary in-service training on ADHD? *

- ○ Yes
- ○ No

If available, would you complete voluntary on-line courses on ADHD? *

- ○ Yes
- ○ No

How many hours per month do you collaborate with the special education staff? *

- ○ 0
- ○ 1
- ○ 2

- ○ 3
- ○ 4
- ○ Other: [   ]

With interventions, do you feel most ADHD students are likely to be successful in the regular education classroom? *

- ○ Yes
- ○ No

In general, do you feel students with ADD/ADHD should be pulled out from regular education classroom activities to work in small groups? *

- ○ Yes
- ○ No

Part C:

Please identify the interventions you have used in the classroom, and rate how successful you feel the technique was. Additionally, if you felt the intervention was less than effective, or you did not use the intervention, please use the box below each intervention to describe why you feel that way.

Reinforcement of Positive Behaviors *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Reinforcement of Positive Behaviors Briefly tell why you feel this way.

[text box]

Self-Monitoring/Self Evaluation *

- ☐ Used but not effective

- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Self-Monitoring/Self Evaluation Briefly tell why you feel this way.

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Peer-Tutoring *
- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Peer-Tutoring Briefly tell why you feel this way.

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Differentiating Instruction *
- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Differentiating Instruction Briefly tell why you feel this way.

Shortened Assignments *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Shortened Assignments Briefly tell why you feel this way.

Audio Tapes/Devices *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Audio Tapes/Devices Briefly tell why you feel this way.

Read Aloud *

- ☐ Used but not effective

- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Read Aloud Briefly tell why you feel this way.

```
[text area]
```

Extended Time *
- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Extended Time Briefly tell why you feel this way.

```
[text area]
```

Computer-Based Instruction *
- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Computer-Based Instruction Briefly tell why you feel this way.

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Ignoring Inconsquential Behavior *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Ignoring Inconsequential Behavior Briefly tell why you feel this way.

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Teacher Positioning *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Teacher Positioning Briefly tell why you feel this way.

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Modified Assignments *

- ☐ Used but not effective

- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Modified Assignments Briefly tell why you feel this way.

Slower Pacing *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Slower pacing Briefly tell why you feel this way.

Frequent Feedback *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Frequent Feedback Briefly tell why you feel this way.

[text area]

Specific Agenda/Daily Schedule for ADHD Students *

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Agenda/Daily Schedule Briefly tell why you feel this way.

[text area]

Parent-Teacher Communication

- ☐ Used but not effective
- ☐ Used and somewhat effective
- ☐ Used and effective
- ☐ Not used

Parent-Teacher Communication Briefly tell why you feel this way.

[text area]

Part D:

Please answer the following short response questions.

Are there problems associated with co-teaching with a special education teacher? If yes, please

briefly discuss those below.

Are there hindrances to collaboration with special education staff? If yes, please briefly discuss

those below.

Are there hindrances in consulting with the school counselor regarding specific students with ADHD? If yes, please briefly discuss those below.

Use the space below to elaborate on any of the questions above or to give additional comments.

Powered by Google Docs

Survey Results from 149 Responses

Part A: Demographic Information

What is your gender?

Male	33	22%
Female	116	78%

What is your age?

20-24	7	5%
25-29	28	19%
30-34	26	17%
35-39	26	17%
40-44	29	19%
45-49	10	7%
50 and up	23	15%

What is your undergraduate degree in?
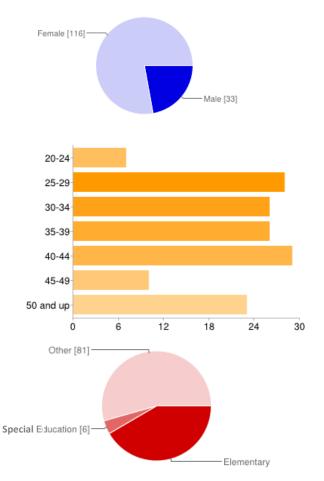
Elementary Education	**62**	42%
Special Education	**6**	4%
Other	**81**	54%
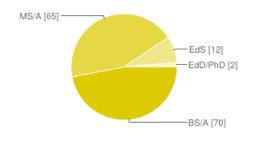
What is your highest education level?
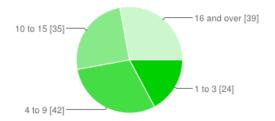
BS/A	**70**	47%
MS/A	**65**	44%
EdS	**12**	8%
EdD/PhD	**2**	1%

How many years have you been teaching?

1 to 3	**24**	16%
4 to 9	**42**	28%
10 to 15	**35**	23%
16 and over	**39**	26%
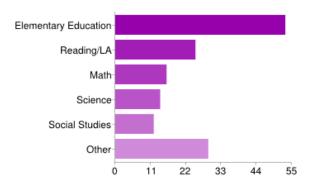
What is your primary area of certification?

Elementary Education	**53**	36%
Reading/LA	**25**	17%
Math	**16**	11%
Science	**14**	9%
Social Studies	**12**	8%
Other	**29**	19%
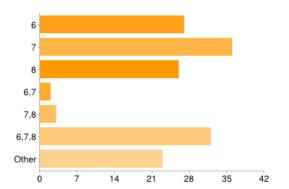
Are you Highly Qualified?

Yes	**143**	96%
No	**6**	4%

What grade levels do you currently teach?
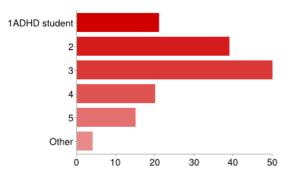
6	**27**	18%
7	**36**	24%
8	**26**	17%
6,7	**2**	1%
7,8	**3**	2%
6,7,8	**32**	21%
Other	**23**	15%

Part B: General questions regarding teaching students with ADHD
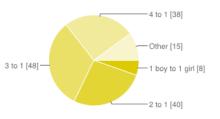
In an average class, how many students do you know or suspect as having ADHD?

1 ADHD student	**21**	14%
2	**39**	26%
3	**50**	34%
4	**20**	13%
5	**15**	10%
Other	**4**	3%
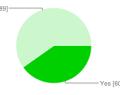
From your experience, what do you estimate is the average ratio of boys to girls with ADHD?

1 boy to 1 girl	8	5%
2 to 1	40	27%
3 to 1	48	32%
4 to 1	38	26%
Other	15	10%

Do you feel you have enough training in ADHD to successfully teach students with ADHD?

Yes	60	40%
No	89	60%

Would you have taken a course in Interventions for ADHD and At-Risk Students while in pre-service teacher training?

Yes	123	83%
No	26	17%
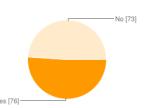
If offered, would you attend voluntary in-service training on ADHD?

Yes	109	73%
No	40	27%
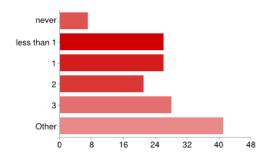
If available, would you complete voluntary on-line courses on ADHD?

Yes	76	51%
No	73	49%
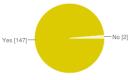
How many hours per month do you collaborate with the special education staff?

never	7	5%
less than 1	26	17%
1	26	17%
2	21	14%
3	28	19%
Other	41	28%

With interventions, do you feel most ADHD students are likely to be successful in the regular education classroom?

Yes	**147**	99%
No	**2**	1%

In general, do you feel students with ADD/ADHD should be pulled out from regular education classroom activities to work in small groups?

Yes	**46**	31%
No	**103**	69%

Part C: Classroom interventions for students with ADHD

Intervention	Effective	Somewhat	Not Effective	Not Used
Reinforcement of Positive Behaviors	48 32%	91 61%	5 3%	5 3%
Self-Monitoring/ Self-Evaluation	19 13%	67 45%	30 20%	33 22%
Peer-Tutoring	39 26%	81 54%	12 8%	17 11%
Shortened Assignments	43 29%	66 44%	10 7%	30 20%
Audio Tapes/Devices	29 19%	31 21%	4 3%	85 57%
Read Aloud	54 36%	71 48%	4 3%	20 13%
Extended Time	44 30%	66 44%	24 16%	15 10%
Computer-Based Instruction	52 35%	56 38%	4 3%	37 25%
Frequent Feedback	70 47%	66 44%	5 3%	8 5%
Ignoring Inconsequential Behavior	53 36%	75 50%	12 8%	9 6%

Teacher Positioning	94 63%	46 31%	3 2%	6 4%
Modified Assignments	41 28%	66 44%	6 4%	36 24%
Slower Pacing	36 24%	57 38%	16 11%	40 27%
Specific Agenda/Daily Schedule for ADHD Students	47 32%	49 33%	8 5%	45 30%
Parent-Teacher Communication	71 48%	67 45%	8 5%	3 2%
Opportunities for Physical Movement	91 61%	47 32%	2 1%	9 6%

Part D: Short Response Qualitative Questions
Will be themed later

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ADHD Command File
GET DATA/
    TYPE = XLS/
    FILE =
    CELLRANGE = FULL/
    READNAMES = ON.

VARIABLE LABELS
TimeStam     'Timestamp'
TeGender     'Teacher Gender'
TeachAge     'Teacher Age'
TeDegree     'Teacher undergraduate degree'
TeEdLevl     'Teacher highest education level'
YrTeachg     'Years of teaching'
PrimCert     'Primary certification'
HighQual     'Teacher Highly Qualified'
GrLvTch      'Grade levels taught'
StudADHD     'Students having ADHD'
RatioB2G     'Estimate ratio of boys to girls with ADHD'
EnoTrain     'Enough training in ADHD'
PrSvCour     'Pre-service course in Interventions'
InSvTrai     'Voluntary in-service training on ADH'
OnLnCour     'Voluntary on-line courses on ADHD'
CollabSE     'Hours per mo collaborate with the sped staff'
ADHDRgEd     'ADHD interventions in reg ed successful'
PullADHD     'ADHD pulled out from reg ed to small groups'
ReinfPos     'Reinforcement of Positive Behaviors'
SelfMSel     'Self-Monitoring-Self Evaluation'
PeerTutr     'Peer-Tutoring'
ShortAss     'Shortened Assignments'
AudioTap     'Audio Tapes-Devices'
ReadAlou     'Read Aloud'
ExtenTim     'Extended Time'
ComBasIn     'Computer-Based Instruction'
FreqFeed     'Frequent Feedback'
IgnorBeh     'Ignore inconsequential behavior'
TeachPos     'Teacher positioning intervention'
ModAssig     'Modified assignments intervention'
SlowPace     'Slower pacing intervention'
AdendSch     'Agenda Daily Schedule for ADHD Students'
ParTeCom     'Parent-Teacher Communication'
PhysicMo     'Opportunities for physical movement'.

VALUE LABELS
TimeStam     1 = 'No Value'/
TeGender     1 = 'male'
             2 = 'female'/
TeachAge     1 = '20-24'
             2 = '25-29'
             3 = '30-34'
             4 = '35-39'
             5 = '40-44'
             6 = '45-49'
             7 = '50 and Up'/
TeDegree     1 = 'Elementary Education'
             2 = 'Special Education'
             3 = 'Other'/
TeEdLevl     1 = 'BS-A'
             2 = 'MS-A'
             3 = 'EdS'
             4 = 'PhD-EdD'/
YrTeachg     1 = '1-3'
             2 = '4-9'
```

```
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                4 = '16 and Over'/
PrimCert     1 = 'Elem Ed'
             2 = 'Reading-LA'
             3 = 'Math'
             4 = 'Science'
             5 = 'Social Studies'
             6 = 'Other'/
HighQual     1 = 'Yes'
             2 = 'No'/
GrLvTch      1 = '6'
             2 = '7'
             3 = '8'
             4 = '6,7'
             5 = '7,8'
             6 = '6,7,8'
             7 = 'Other'/
StudADHD     1 = '1'
             2 = '2'
             3 = '3'
             4 = '4'
             5 = '5'
             6 = 'other'/
RatioB2G     1 = '1 to 1'
             2 = '2 to 1'
             3 = '3 to 1'
             4 = '4 to 1'
             5 = 'other'/
EnoTrain     1 = 'Yes'
             2 = 'No'/
PrSvCour     1 = 'Yes'
             2 = 'No'/
InSvTrai     1 = 'Yes'
             2 = 'No'/
OnLnCour     1 = 'Yes'
             2 = 'No'/
CollabSE     1 = 'never'
             2 = 'less than 1'
             3 = '1'
             4 = '2'
             5 = '3'
             6 = 'other'/
ADHDRgEd     1 = 'Yes'
             2 = 'No'/
PullADHD     1 = 'Yes'
             2 = 'No'/
ReinfPos     1 = 'Used but not effective'
             2 = 'Used and somewhat effective'
             3 = 'Used and effective'
             4 = 'Not used'/
SelfMSel     1 = 'Used but not effective'
             2 = 'Used and somewhat effective'
             3 = 'Used and effective'
             4 = 'Not used'/
PeerTutr     1 = 'Used but not effective'
             2 = 'Used and somewhat effective'
             3 = 'Used and effective'
             4 = 'Not used'/
ShortAss     1 = 'Used but not effective'
             2 = 'Used and somewhat effective'
             3 = 'Used and effective'
             4 = 'Not used'/
AudioTap     1 = 'Used but not effective'
```

```
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
ReadAlou    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
ExtenTim    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
ComBasIn    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
FreqFeed    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
IgnorBeh    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
TeachPos    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
ModAssig    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
SlowPace    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
AdendSch    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/
ParTeCom    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective
                      4 = 'Not used'/
PhysicMo    1 = 'Used but not effective'
                      2 = 'Used and somewhat effective'
                      3 = 'Used and effective'
                      4 = 'Not used'/.

FREQUENCIES VARIABLES = TeGender TO PhysicMo/
                      STATISTICS = ALL.
```

TimeStam	TeGender	TeachAge	TeDegree	TeEdLevl
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10/22/2012 21:33	2	5	3	3
10/23/2012 8:09	2	3	3	2
10/23/2012 8:40	1	5	1	2
10/23/2012 10:41	1	6	3	2
10/23/2012 13:35	2	3	3	2
10/24/2012 15:22	2	4	3	1
10/24/2012 23:03	2	3	1	1
10/25/2012 7:23	1	3	3	2
10/25/2012 9:29	2	7	3	2
10/27/2012 12:33	2	3	1	2
11/1/2012 9:27	2	3	3	2
11/1/2012 10:47	2	7	3	1
11/5/2012 9:24	2	5	3	2
11/5/2012 10:00	2	3	3	2
11/5/2012 12:23	1	4	3	3
11/5/2012 13:55	2	5	1	3
11/6/2012 12:34	2	3	3	2
11/6/2012 14:45	2	5	3	2
11/6/2012 14:49	2	4	3	1
11/12/2012 14:58	2	7	1	2
11/17/2012 21:54	2	6	1	2
11/18/2012 5:35	2	7	1	1
11/18/2012 19:08	2	4	1	1
11/19/2012 14:41	2	7	1	2
11/20/2012 8:22	2	5	1	3
11/20/2012 9:30	2	4	1	1
11/20/2012 9:39	1	6	3	3
11/20/2012 10:51	1	7	3	3
11/20/2012 11:16	1	3	1	1
11/20/2012 11:42	2	1	1	1
11/20/2012 12:45	1	3	2	2
11/20/2012 13:06	2	6	2	4
11/20/2012 14:55	2	7	1	1
11/20/2012 15:29	1	1	3	2
11/24/2012 21:00	2	1	3	1
11/25/2012 19:10	2	5	3	2
11/26/2012 20:48	2	3	3	2
11/26/2012 20:50	1	3	2	1
11/26/2012 20:59	2	3	1	2
11/26/2012 21:24	2	3	3	3
11/26/2012 21:24	2	2	1	3
11/26/2012 21:29	2	4	1	1
11/26/2012 22:21	2	6	1	1
11/26/2012 22:55	2	5	3	2
11/27/2012 6:49	2	4	1	2
11/27/2012 7:18	2	5	3	1
11/27/2012 7:26	2	4	3	2
11/27/2012 8:38	2	7	1	2
11/27/2012 8:46	2	6	1	1
11/27/2012 8:55	2	7	3	2
11/27/2012 8:57	1	4	3	2
11/27/2012 9:25	1	4	3	1
11/27/2012 10:53	2	5	1	1
11/27/2012 15:36	1	5	3	2
11/27/2012 15:42	2	3	3	2
11/28/2012 7:21	2	2	1	1
11/28/2012 9:33	1	5	1	2

TimeStam	TeGender	TeachAge	TeDegree	TeEdLevl
11/28/2012 21:57	1	5	3	2
11/29/2012 8:34	1	3	3	1
11/29/2012 9:59	2	4	3	2
11/29/2012 16:01	1	5	1	1
11/30/2012 13:05	1	6	1	1
11/30/2012 15:22	2	7	3	3
12/3/2012 5:15	1	7	3	2
12/3/2012 5:30	2	7	2	1
12/3/2012 7:51	2	4	1	1
12/3/2012 13:11	2	4	1	2
12/3/2012 13:32	2	7	1	2
12/3/2012 14:20	2	5	1	3
12/3/2012 18:21	2	4	1	3
12/4/2012 15:31	2	6	3	2
12/4/2012 17:50	2	7	3	2
12/4/2012 19:13	1	7	3	2
12/4/2012 19:56	2	7	1	2
12/4/2012 20:06	1	2	3	1
12/4/2012 20:22	1	3	3	2
12/4/2012 20:40	2	3	3	1
12/4/2012 23:11	2	7	3	2
12/5/2012 7:32	2	5	3	2
12/5/2012 8:14	2	7	2	2
12/5/2012 8:48	2	3	1	1
12/5/2012 8:55	1	3	3	1
12/5/2012 9:50	2	5	3	2
12/5/2012 11:15	2	3	3	3
12/5/2012 11:29	2	2	3	1
12/5/2012 11:48	2	2	1	1
12/5/2012 11:52	1	2	3	1
12/5/2012 14:56	2	2	3	1
12/5/2012 15:54	1	4	3	1
12/5/2012 16:05	2	3	1	2
12/5/2012 16:34	1	2	3	2
12/5/2012 18:31	2	7	1	1
12/5/2012 22:40	2	7	2	4
12/6/2012 7:28	2	4	1	2
12/6/2012 9:10	2	2	3	2
12/6/2012 9:12	2	2	1	2
12/6/2012 11:24	2	6	1	2
12/6/2012 12:16	2	2	1	1
12/6/2012 12:33	2	2	3	1
12/6/2012 13:22	1	7	1	1
12/6/2012 14:37	2	2	1	1
12/6/2012 14:38	2	5	1	1
12/6/2012 15:01	2	5	3	1
12/6/2012 16:00	2	5	1	2
12/6/2012 19:16	2	5	1	1
12/6/2012 19:27	2	1	3	1
12/6/2012 20:31	2	5	3	2
12/6/2012 20:46	2	4	1	1
12/6/2012 21:56	2	5	1	2
12/7/2012 7:41	2	5	3	2
12/7/2012 8:05	2	5	1	1
12/7/2012 8:57	2	5	1	1
12/7/2012 9:30	2	4	1	1
12/7/2012 11:15	2	3	1	1
12/7/2012 11:37	1	4	2	1

TimeStam	TeGender	TeachAge	TeDegree	TeEdLevl
12/7/2012 13:32	1	5	3	2
12/7/2012 13:36	1	1	1	1
12/7/2012 15:37	2	4	1	1
12/10/2012 5:49	2	4	1	2
12/10/2012 10:09	2	2	1	2
12/11/2012 10:16	2	2	3	1
12/11/2012 20:07	1	3	3	2
12/11/2012 22:50	1	2	3	1
12/12/2012 7:59	2	4	2	2
12/12/2012 8:26	2	3	3	1
12/12/2012 9:08	1	4	1	2
12/12/2012 9:24	2	6	3	1
12/12/2012 9:25	2	4	1	2
12/12/2012 10:37	2	4	3	1
12/12/2012 15:38	2	5	1	1
12/12/2012 20:47	2	2	1	2
12/17/2012 10:45	2	7	1	1
3/1/2013 9:31	2	4	3	1
3/1/2013 11:51	2	2	3	1
3/2/2013 19:56	2	2	1	1
3/2/2013 20:40	2	2	3	1
3/3/2013 0:23	2	7	1	2
3/3/2013 16:03	2	5	1	1
3/3/2013 16:16	2	2	1	1
3/3/2013 16:33	2	2	1	1
3/3/2013 16:43	2	1	3	1
3/3/2013 17:04	2	2	1	1
3/3/2013 17:19	2	1	1	2
3/3/2013 17:32	2	2	1	1
3/3/2013 17:35	2	2	1	2
3/3/2013 17:41	2	2	1	1
3/3/2013 17:45	2	2	1	1
3/3/2013 17:53	2	3	1	2

TimeStam	YrTeachg	PrimCert	HighQual	GrLvTch
10/22/2012 21:16	2	2	1	2
10/22/2012 21:33	4	6	1	7
10/23/2012 8:09	3	2	1	6
10/23/2012 8:40	4	1	1	3
10/23/2012 10:41	4	2	1	6
10/23/2012 13:35	2	6	1	6
10/24/2012 15:22	1	6	1	6
10/24/2012 23:03	2	1	1	3
10/25/2012 7:23	2	6	1	6
10/25/2012 9:29	2	6	1	2
10/27/2012 12:33	2	3	1	3
11/1/2012 9:27	2	6	1	6
11/1/2012 10:47	4	6	1	6
11/5/2012 9:24	2	3	1	3
11/5/2012 10:00	3	6	1	6
11/5/2012 12:23	3	3	1	2
11/5/2012 13:55	3	3	1	2
11/6/2012 12:34	1	2	1	6
11/6/2012 14:45	2	4	1	2
11/6/2012 14:49	3	2	1	3
11/12/2012 14:58	4	1	1	2
11/17/2012 21:54	4	1	1	2
11/18/2012 5:35	3	1	1	1
11/18/2012 19:08	3	1	1	1
11/19/2012 14:41	4	1	1	6
11/20/2012 8:22	4	1	1	7
11/20/2012 9:30	3	4	1	3
11/20/2012 9:39	4	5	1	7
11/20/2012 10:51	4	6	1	6
11/20/2012 11:16	2	1	1	2
11/20/2012 11:42	1	1	1	3
11/20/2012 12:45	2	2	1	6
11/20/2012 13:06	4	1	1	5
11/20/2012 14:55	3	6	2	7
11/20/2012 15:29	1	4	1	2
11/24/2012 21:00	1	2	1	6
11/25/2012 19:10	2	1	1	2
11/26/2012 20:48	2	3	1	1
11/26/2012 20:50	2	3	1	1
11/26/2012 20:59	2	2	1	2
11/26/2012 21:24	2	5	1	3
11/26/2012 21:24	2	2	1	2
11/26/2012 21:29	3	3	1	2
11/26/2012 22:21	4	1	1	2
11/26/2012 22:55	2	4	1	2
11/27/2012 6:49	3	4	1	2
11/27/2012 7:18	2	4	1	2
11/27/2012 7:26	3	1	1	2
11/27/2012 8:38	3	1	1	6
11/27/2012 8:46	4	3	1	6
11/27/2012 8:55	4	2	1	3
11/27/2012 8:57	3	4	1	3
11/27/2012 9:25	1	5	1	3
11/27/2012 10:53	2	1	1	1
11/27/2012 15:36	4	5	1	3
11/27/2012 15:42	2	6	2	6
11/28/2012 7:21	2	3	1	3
11/28/2012 9:33	4	1	1	1

TimeStam	YrTeachg	PrimCert	HighQual	GrLvTch
11/28/2012 21:57	4	5	1	1
11/29/2012 8:34	3	2	1	1
11/29/2012 9:59	3	3	1	5
11/29/2012 16:01	3	1	1	5
11/30/2012 13:05	4	1	1	1
11/30/2012 15:22	3	2	1	6
12/3/2012 5:15	3	1	1	6
12/3/2012 5:30	4	2	1	6
12/3/2012 7:51	2	1	1	1
12/3/2012 13:11	3	1	1	6
12/3/2012 13:32	4	1	1	1
12/3/2012 14:20	3	1	1	6
12/3/2012 18:21	3	5	1	6
12/4/2012 15:31	2	1	1	1
12/4/2012 17:50	4	6	1	6
12/4/2012 19:13	4	2	1	2
12/4/2012 19:56	4	1	1	6
12/4/2012 20:06	1	5	2	2
12/4/2012 20:22	2	5	1	6
12/4/2012 20:40	2	4	1	3
12/4/2012 23:11	4	3	1	4
12/5/2012 7:32	4	4	1	2
12/5/2012 8:14	4	6	1	6
12/5/2012 8:48	3	2	1	1
12/5/2012 8:55	2	2	1	2
12/5/2012 9:50	3	6	2	6
12/5/2012 11:15	3	4	1	2
12/5/2012 11:29	1	5	1	3
12/5/2012 11:48	1	2	1	1
12/5/2012 11:52	1	5	1	3
12/5/2012 14:56	2	5	1	2
12/5/2012 15:54	1	2	1	3
12/5/2012 16:05	3	1	1	1
12/5/2012 16:34	1	1	1	3
12/5/2012 18:31	3	1	1	2
12/5/2012 22:40	4	1	1	6
12/6/2012 7:28	2	4	1	3
12/6/2012 9:10	1	2	1	3
12/6/2012 9:12	1	1	1	1
12/6/2012 11:24	4	3	1	6
12/6/2012 12:16	2	1	1	2
12/6/2012 12:33	2	2	1	1
12/6/2012 13:22	4	2	1	7
12/6/2012 14:37	2	1	1	1
12/6/2012 14:38	4	1	1	1
12/6/2012 15:01	4	6	2	7
12/6/2012 16:00	4	1	1	6
12/6/2012 19:16	2	3	1	3
12/6/2012 19:27	1	2	1	3
12/6/2012 20:31	3	1	1	1
12/6/2012 20:46	3	1	1	2
12/6/2012 21:56	4	1	1	3
12/7/2012 7:41	3	1	1	1
12/7/2012 8:05	4	1	1	1
12/7/2012 8:57	4	1	1	2
12/7/2012 9:30	4	2	1	1
12/7/2012 11:15	3	3	1	1
12/7/2012 11:37	3	1	1	3

TimeStam	YrTeachg	PrimCert	HighQual	GrLvTch
12/7/2012 13:32	4	5	1	2
12/7/2012 13:36	1	1	1	3
12/7/2012 15:37	3	4	1	2
12/10/2012 5:49	4	3	1	4
12/10/2012 10:09	2	2	1	1
12/11/2012 10:16	2	2	1	3
12/11/2012 20:07	2	1	1	1
12/11/2012 22:50	1	4	1	2
12/12/2012 7:59	2	6	1	2
12/12/2012 8:26	2	3	1	2
12/12/2012 9:08	2	4	1	2
12/12/2012 9:24	2	6	1	6
12/12/2012 9:25	3	1	1	2
12/12/2012 10:37	2	6	2	6
12/12/2012 15:38	3	1	1	1
12/12/2012 20:47	2	1	1	2
12/17/2012 10:45	4	1	1	1
3/1/2013 9:31	3	1	1	4
3/1/2013 11:51	1	6	1	7
3/2/2013 19:56	1	1	1	7
3/2/2013 20:40	2	6	1	7
3/3/2013 0:23	4	2	1	7
3/3/2013 16:03	1	1	1	7
3/3/2013 16:16	2	1	1	7
3/3/2013 16:33	1	1	1	7
3/3/2013 16:43	1	1	1	7
3/3/2013 17:04	2	1	1	3
3/3/2013 17:19	1	1	1	7
3/3/2013 17:32	1	1	1	7
3/3/2013 17:35	2	1	1	1
3/3/2013 17:41	1	1	1	7
3/3/2013 17:45	2	1	1	7
3/3/2013 17:53	2	1	1	2

TimeStam	StudADHD	RatioB2G	EnoTrain	PrSvCour
10/22/2012 21:16	3	4	1	1
10/22/2012 21:33	2	4	2	2
10/23/2012 8:09	2	2	2	1
10/23/2012 8:40	1	3	2	1
10/23/2012 10:41	2	4	1	1
10/23/2012 13:35	1	3	1	1
10/24/2012 15:22	3	3	1	1
10/24/2012 23:03	3	3	2	2
10/25/2012 7:23	3	3	2	1
10/25/2012 9:29	3	4	1	1
10/27/2012 12:33	3	2	2	1
11/1/2012 9:27	3	4	2	1
11/1/2012 10:47	3	4	1	1
11/5/2012 9:24	4	1	2	1
11/5/2012 10:00	2	2	2	1
11/5/2012 12:23	1	4	2	1
11/5/2012 13:55	3	2	2	1
11/6/2012 12:34	5	2	1	1
11/6/2012 14:45	2	2	2	1
11/6/2012 14:49	4	3	2	1
11/12/2012 14:58	5	3	2	1
11/17/2012 21:54	3	3	1	1
11/18/2012 5:35	1	2	2	1
11/18/2012 19:08	4	3	1	1
11/19/2012 14:41	1	3	2	1
11/20/2012 8:22	5	3	1	2
11/20/2012 9:30	3	4	2	2
11/20/2012 9:39	2	3	1	1
11/20/2012 10:51	1	4	2	2
11/20/2012 11:16	3	4	2	1
11/20/2012 11:42	2	2	1	1
11/20/2012 12:45	5	4	1	1
11/20/2012 13:06	3	2	1	2
11/20/2012 14:55	1	1	2	1
11/20/2012 15:29	2	1	2	2
11/24/2012 21:00	2	2	2	1
11/25/2012 19:10	5	3	1	1
11/26/2012 20:48	3	3	2	1
11/26/2012 20:50	3	2	2	2
11/26/2012 20:59	2	3	2	1
11/26/2012 21:24	2	2	2	1
11/26/2012 21:24	5	3	2	1
11/26/2012 21:29	3	2	1	2
11/26/2012 22:21	6	3	1	1
11/26/2012 22:55	2	4	2	1
11/27/2012 6:49	0	1	1	1
11/27/2012 7:18	3	5	2	1
11/27/2012 7:26	3	3	2	1
11/27/2012 8:38	3	3	1	1
11/27/2012 8:46	2	2	1	1
11/27/2012 8:55	2	2	2	1
11/27/2012 8:57	1	4	1	1
11/27/2012 9:25	1	1	2	1
11/27/2012 10:53	3	2	2	1
11/27/2012 15:36	1	4	1	1
11/27/2012 15:42	4	4	2	1
11/28/2012 7:21	3	3	1	1
11/28/2012 9:33	3	3	2	2

TimeStam	StudADHD	RatioB2G	EnoTrain	PrSvCour
11/28/2012 21:57	4	3	1	1
11/29/2012 8:34	2	2	2	1
11/29/2012 9:59	0	4	2	1
11/29/2012 16:01	3	2	2	1
11/30/2012 13:05	2	3	2	1
11/30/2012 15:22	4	3	1	1
12/3/2012 5:15	3	3	1	1
12/3/2012 5:30	4	4	2	1
12/3/2012 7:51	3	2	2	1
12/3/2012 13:11	1	3	2	2
12/3/2012 13:32	2	2	2	1
12/3/2012 14:20	5	4	2	1
12/3/2012 18:21	3	4	1	1
12/4/2012 15:31	3	3	1	1
12/4/2012 17:50	5	4	1	1
12/4/2012 19:13	3	3	1	1
12/4/2012 19:56	1	3	2	1
12/4/2012 20:06	1	4	1	1
12/4/2012 20:22	2	4	2	1
12/4/2012 20:40	4	4	2	2
12/4/2012 23:11	3	2	1	1
12/5/2012 7:32	2	3	2	1
12/5/2012 8:14	3	4	1	1
12/5/2012 8:48	2	4	1	1
12/5/2012 8:55	3	2	2	1
12/5/2012 9:50	5	4	2	1
12/5/2012 11:15	2	4	1	1
12/5/2012 11:29	1	2	2	1
12/5/2012 11:48	2	3	2	1
12/5/2012 11:52	4	3	2	1
12/5/2012 14:56	4	3	1	1
12/5/2012 15:54	3	4	1	1
12/5/2012 16:05	3	4	2	1
12/5/2012 16:34	5	4	2	1
12/5/2012 18:31	3	4	2	1
12/5/2012 22:40	2	4	2	1
12/6/2012 7:28	2	2	1	2
12/6/2012 9:10	1	1	2	1
12/6/2012 9:12	2	3	2	1
12/6/2012 11:24	3	3	2	1
12/6/2012 12:16	3	2	2	2
12/6/2012 12:33	3	2	1	1
12/6/2012 13:22	4	5	1	2
12/6/2012 14:37	2	3	1	2
12/6/2012 14:38	2	5	1	1
12/6/2012 15:01	1	4	2	1
12/6/2012 16:00	5	4	1	2
12/6/2012 19:16	2	3	1	2
12/6/2012 19:27	3	3	2	1
12/6/2012 20:31	4	3	1	1
12/6/2012 20:46	3	2	1	1
12/6/2012 21:56	2	4	1	2
12/7/2012 7:41	2	4	2	1
12/7/2012 8:05	2	2	1	2
12/7/2012 8:57	3	2	2	1
12/7/2012 9:30	2	5	2	1
12/7/2012 11:15	5	3	1	1
12/7/2012 11:37	2	4	1	1

TimeStam	StudADHD	RatioB2G	EnoTrain	PrSvCour
12/7/2012 13:32	2	3	1	2
12/7/2012 13:36	3	2	1	1
12/7/2012 15:37	1	4	2	1
12/10/2012 5:49	1	2	2	1
12/10/2012 10:09	4	3	2	1
12/11/2012 10:16	2	3	2	1
12/11/2012 20:07	1	2	2	1
12/11/2012 22:50	4	2	1	1
12/12/2012 7:59	5	3	2	2
12/12/2012 8:26	2	3	1	1
12/12/2012 9:08	1	2	1	1
12/12/2012 9:24	4	3	2	1
12/12/2012 9:25	3	3	1	2
12/12/2012 10:37	5	3	2	1
12/12/2012 15:38	4	3	2	1
12/12/2012 20:47	2	2	2	1
12/17/2012 10:45	4	4	2	1
3/1/2013 9:31	3	3	2	1
3/1/2013 11:51	2	2	2	1
3/2/2013 19:56	4	4	2	1
3/2/2013 20:40	3	2	2	2
3/3/2013 0:23	3	2	1	1
3/3/2013 16:03	2	2	1	1
3/3/2013 16:16	4	2	2	1
3/3/2013 16:33	2	3	2	1
3/3/2013 16:43	3	3	1	2
3/3/2013 17:04	3	4	2	1
3/3/2013 17:19	1	1	2	1
3/3/2013 17:32	3	2	1	1
3/3/2013 17:35	3	2	2	2
3/3/2013 17:41	3	4	2	1
3/3/2013 17:45	4	1	2	1
3/3/2013 17:53	5	3	2	1

TimeStam	InSvTrai	OnLnCour	CollabSE	ADHDRgEd
10/22/2012 21:16	1	1	4	1
10/22/2012 21:33	2	2	6	2
10/23/2012 8:09	1	1	5	1
10/23/2012 8:40	1	1	4	1
10/23/2012 10:41	1	2	5	1
10/23/2012 13:35	2	2	4	1
10/24/2012 15:22	1	1	5	1
10/24/2012 23:03	1	1	6	1
10/25/2012 7:23	1	1	4	1
10/25/2012 9:29	2	1	6	1
10/27/2012 12:33	1	2	5	1
11/1/2012 9:27	1	2	5	1
11/1/2012 10:47	2	1	4	1
11/5/2012 9:24	2	2	4	1
11/5/2012 10:00	1	2	4	1
11/5/2012 12:23	1	2	4	1
11/5/2012 13:55	2	2	6	1
11/6/2012 12:34	1	2	6	1
11/6/2012 14:45	1	1	5	1
11/6/2012 14:49	1	1	6	1
11/12/2012 14:58	1	1	4	1
11/17/2012 21:54	2	2	5	1
11/18/2012 5:35	1	2	4	1
11/18/2012 19:08	1	1	5	1
11/19/2012 14:41	1	1	5	1
11/20/2012 8:22	2	2	4	1
11/20/2012 9:30	2	2	5	1
11/20/2012 9:39	2	2	6	1
11/20/2012 10:51	2	1	4	1
11/20/2012 11:16	1	1	4	1
11/20/2012 11:42	1	2	5	1
11/20/2012 12:45	1	1	6	1
11/20/2012 13:06	1	2	5	1
11/20/2012 14:55	1	1	5	1
11/20/2012 15:29	1	2	4	1
11/24/2012 21:00	1	1	4	1
11/25/2012 19:10	1	1	5	1
11/26/2012 20:48	2	1	5	1
11/26/2012 20:50	2	2	4	1
11/26/2012 20:59	1	1	5	1
11/26/2012 21:24	1	2	6	1
11/26/2012 21:24	1	2	61	1
11/26/2012 21:29	2	1	4	1
11/26/2012 22:21	1	2	5	1
11/26/2012 22:55	1	1	5	1
11/27/2012 6:49	1	2	5	1
11/27/2012 7:18	1	2	4	1
11/27/2012 7:26	1	2	5	1
11/27/2012 8:38	2	2	1	1
11/27/2012 8:46	1	2	4	1
11/27/2012 8:55	1	1	6	1
11/27/2012 8:57	1	2	4	1
11/27/2012 9:25	1	1	4	1
11/27/2012 10:53	1	1	4	1
11/27/2012 15:36	2	2	4	1
11/27/2012 15:42	2	1	4	1
11/28/2012 7:21	2	2	5	1
11/28/2012 9:33	1	1	5	1

TimeStam	InSvTrai	OnLnCour	CollabSE	ADHDRgEd
11/28/2012 21:57	1	1	4	1
11/29/2012 8:34	1	1	5	1
11/29/2012 9:59	2	2	4	1
11/29/2012 16:01	2	1	5	1
11/30/2012 13:05	1	1	1	1
11/30/2012 15:22	1	1	5	1
12/3/2012 5:15	1	2	5	1
12/3/2012 5:30	1	1	6	1
12/3/2012 7:51	2	1	5	1
12/3/2012 13:11	2	2	4	1
12/3/2012 13:32	1	1	5	1
12/3/2012 14:20	1	2	5	1
12/3/2012 18:21	1	1	4	1
12/4/2012 15:31	1	1	5	1
12/4/2012 17:50	1	1	3	1
12/4/2012 19:13	2	2	6	1
12/4/2012 19:56	1	1	5	1
12/4/2012 20:06	2	2	4	1
12/4/2012 20:22	1	2	5	1
12/4/2012 20:40	1	2	5	1
12/4/2012 23:11	2	2	8	1
12/5/2012 7:32	1	2	6	1
12/5/2012 8:14	1	2	5	1
12/5/2012 8:48	2	2	6	1
12/5/2012 8:55	1	2	4	1
12/5/2012 9:50	1	1	5	1
12/5/2012 11:15	1	2	5	1
12/5/2012 11:29	1	1	4	1
12/5/2012 11:48	1	2	4	1
12/5/2012 11:52	2	2	5	1
12/5/2012 14:56	1	2	5	1
12/5/2012 15:54	1	1	4	1
12/5/2012 16:05	1	2	5	1
12/5/2012 16:34	1	2	4	1
12/5/2012 18:31	1	1	5	1
12/5/2012 22:40	1	1	5	1
12/6/2012 7:28	2	2	6	1
12/6/2012 9:10	1	2	5	1
12/6/2012 9:12	1	1	4	1
12/6/2012 11:24	1	2	5	1
12/6/2012 12:16	1	2	6	1
12/6/2012 12:33	1	1	5	1
12/6/2012 13:22	2	2	50	1
12/6/2012 14:37	2	1	4	1
12/6/2012 14:38	2	2	5	1
12/6/2012 15:01	1	1	1	1
12/6/2012 16:00	2	2	4	1
12/6/2012 19:16	2	2	6	1
12/6/2012 19:27	1	1	4	1
12/6/2012 20:31	1	2	5	1
12/6/2012 20:46	1	1	6	1
12/6/2012 21:56	2	2	5	1
12/7/2012 7:41	1	1	5	1
12/7/2012 8:05	2	1	4	1
12/7/2012 8:57	1	2	4	1
12/7/2012 9:30	1	1	6	1
12/7/2012 11:15	2	2	6	1
12/7/2012 11:37	1	1	6	1

TimeStam	InSvTrai	OnLnCour	CollabSE	ADHDRgEd
12/7/2012 13:32	1	2	4	1
12/7/2012 13:36	1	1	6	1
12/7/2012 15:37	1	2	5	1
12/10/2012 5:49	2	1	4	1
12/10/2012 10:09	1	2	4	1
12/11/2012 10:16	1	2	5	1
12/11/2012 20:07	1	2	6	1
12/11/2012 22:50	2	1	6	1
12/12/2012 7:59	1	1	6	1
12/12/2012 8:26	1	2	6	2
12/12/2012 9:08	1	2	5	1
12/12/2012 9:24	1	1	5	1
12/12/2012 9:25	1	1	6	1
12/12/2012 10:37	1	1	5	1
12/12/2012 15:38	1	1	6	1
12/12/2012 20:47	1	1	4	1
12/17/2012 10:45	1	1	4	1
3/1/2013 9:31	1	1	4	1
3/1/2013 11:51	1	1	5	1
3/2/2013 19:56	1	1	4	1
3/2/2013 20:40	1	1	5	1
3/3/2013 0:23	1	1	4	1
3/3/2013 16:03	1	1	5	1
3/3/2013 16:16	2	2	5	1
3/3/2013 16:33	1	1	5	1
3/3/2013 16:43	1	1	5	1
3/3/2013 17:04	1	1	4	1
3/3/2013 17:19	1	2	5	1
3/3/2013 17:32	1	1	5	1
3/3/2013 17:35	2	2	4	1
3/3/2013 17:41	1	2	5	1
3/3/2013 17:45	1	2	5	1
3/3/2013 17:53	1	1	5	1

TimeStam	PullADHD	ReinfPos	SelfMSel	PeerTutr
10/22/2012 21:16	2	3	1	3
10/22/2012 21:33	1	2	2	2
10/23/2012 8:09	2	3	1	2
10/23/2012 8:40	2	3	3	2
10/23/2012 10:41	2	2	1	2
10/23/2012 13:35	1	3	4	3
10/24/2012 15:22	1	2	2	1
10/24/2012 23:03	2	2	2	2
10/25/2012 7:23	1	2	1	1
10/25/2012 9:29	2	3	1	3
10/27/2012 12:33	2	2	2	2
11/1/2012 9:27	2	2	3	4
11/1/2012 10:47	2	2	2	4
11/5/2012 9:24	2	3	4	2
11/5/2012 10:00	2	2	4	2
11/5/2012 12:23	2	2	2	3
11/5/2012 13:55	2	3	2	2
11/6/2012 12:34	2	3	2	3
11/6/2012 14:45	1	3	2	2
11/6/2012 14:49	2	2	1	3
11/12/2012 14:58	1	2	3	3
11/17/2012 21:54	2	2	1	1
11/18/2012 5:35	2	2	2	2
11/18/2012 19:08	2	2	2	2
11/19/2012 14:41	1	2	3	2
11/20/2012 8:22	2	3	2	2
11/20/2012 9:30	2	4	4	1
11/20/2012 9:39	2	3	2	2
11/20/2012 10:51	2	2	4	2
11/20/2012 11:16	1	1	1	2
11/20/2012 11:42	2	2	2	4
11/20/2012 12:45	2	2	1	3
11/20/2012 13:06	1	2	4	4
11/20/2012 14:55	2	3	2	2
11/20/2012 15:29	1	2	2	3
11/24/2012 21:00	2	2	2	2
11/25/2012 19:10	1	2	2	2
11/26/2012 20:48	1	2	2	2
11/26/2012 20:50	1	3	3	3
11/26/2012 20:59	1	2	4	4
11/26/2012 21:24	2	3	3	3
11/26/2012 21:24	2	2	2	3
11/26/2012 21:29	2	2	4	2
11/26/2012 22:21	2	2	1	2
11/26/2012 22:55	1	2	1	2
11/27/2012 6:49	2	2	1	1
11/27/2012 7:18	1	2	1	2
11/27/2012 7:26	2	3	2	2
11/27/2012 8:38	2	2	2	2
11/27/2012 8:46	1	2	4	2
11/27/2012 8:55	2	3	3	2
11/27/2012 8:57	2	2	2	2
11/27/2012 9:25	1	2	4	2
11/27/2012 10:53	1	2	2	1
11/27/2012 15:36	2	3	3	2
11/27/2012 15:42	1	3	4	2
11/28/2012 7:21	2	2	4	2
11/28/2012 9:33	2	2	2	2

TimeStam	PullADHD	ReinfPos	SelfMSel	PeerTutr
11/28/2012 21:57	2	2	1	2
11/29/2012 8:34	2	2	4	4
11/29/2012 9:59	2	2	4	2
11/29/2012 16:01	2	2	2	4
11/30/2012 13:05	2	2	2	3
11/30/2012 15:22	1	2	2	3
12/3/2012 5:15	2	2	2	2
12/3/2012 5:30	2	3	2	3
12/3/2012 7:51	2	3	2	2
12/3/2012 13:11	2	2	1	2
12/3/2012 13:32	2	3	2	1
12/3/2012 14:20	1	1	1	2
12/3/2012 18:21	2	3	2	2
12/4/2012 15:31	2	3	3	3
12/4/2012 17:50	1	2	2	3
12/4/2012 19:13	2	3	2	2
12/4/2012 19:56	1	2	1	2
12/4/2012 20:06	2	2	4	2
12/4/2012 20:22	2	2	3	3
12/4/2012 20:40	2	3	2	3
12/4/2012 23:11	2	2	3	2
12/5/2012 7:32	2	2	4	2
12/5/2012 8:14	1	3	2	3
12/5/2012 8:48	2	3	2	4
12/5/2012 8:55	1	2	2	3
12/5/2012 9:50	1	2	1	2
12/5/2012 11:15	2	2	2	2
12/5/2012 11:29	2	2	2	2
12/5/2012 11:48	2	3	4	2
12/5/2012 11:52	1	3	4	2
12/5/2012 14:56	2	2	4	2
12/5/2012 15:54	2	3	2	3
12/5/2012 16:05	2	2	1	2
12/5/2012 16:34	2	4	2	4
12/5/2012 18:31	2	2	2	2
12/5/2012 22:40	2	2	4	2
12/6/2012 7:28	2	2	1	2
12/6/2012 9:10	2	2	1	2
12/6/2012 9:12	2	2	4	2
12/6/2012 11:24	2	2	2	3
12/6/2012 12:16	2	3	4	3
12/6/2012 12:33	2	4	3	2
12/6/2012 13:22	2	3	1	2
12/6/2012 14:37	2	2	1	2
12/6/2012 14:38	2	3	3	2
12/6/2012 15:01	2	2	2	2
12/6/2012 16:00	2	2	4	3
12/6/2012 19:16	2	4	4	3
12/6/2012 19:27	1	2	1	2
12/6/2012 20:31	2	3	4	3
12/6/2012 20:46	1	2	2	2
12/6/2012 21:56	2	3	3	4
12/7/2012 7:41	2	2	2	3
12/7/2012 8:05	2	3	2	2
12/7/2012 8:57	2	2	2	2
12/7/2012 9:30	2	3	2	3
12/7/2012 11:15	1	2	2	2
12/7/2012 11:37	1	2	1	2

TimeStam	PullADHD	ReinfPos	SelfMSel	PeerTutr
12/7/2012 13:32	2	2	2	3
12/7/2012 13:36	2	3	2	2
12/7/2012 15:37	2	3	3	3
12/10/2012 5:49	2	3	2	3
12/10/2012 10:09	1	2	2	1
12/11/2012 10:16	2	3	4	4
12/11/2012 20:07	2	2	1	1
12/11/2012 22:50	2	3	3	3
12/12/2012 7:59	2	1	1	1
12/12/2012 8:26	1	1	4	2
12/12/2012 9:08	2	2	2	2
12/12/2012 9:24	1	2	4	2
12/12/2012 9:25	2	2	1	3
12/12/2012 10:37	1	2	2	3
12/12/2012 15:38	2	3	4	2
12/12/2012 20:47	1	2	2	2
12/17/2012 10:45	1	2	2	2
3/1/2013 9:31	2	3	2	1
3/1/2013 11:51	1	3	4	4
3/2/2013 19:56	2	3	2	1
3/2/2013 20:40	2	3	2	4
3/3/2013 0:23	2	3	3	3
3/3/2013 16:03	1	2	3	3
3/3/2013 16:16	2	2	1	2
3/3/2013 16:33	1	2	2	4
3/3/2013 16:43	1	2	4	4
3/3/2013 17:04	2	2	2	4
3/3/2013 17:19	1	2	4	3
3/3/2013 17:32	1	2	3	2
3/3/2013 17:35	1	2	2	2
3/3/2013 17:41	2	2	1	2
3/3/2013 17:45	1	1	2	3
3/3/2013 17:53	2	4	4	4

TimeStam	ShortAss	AudioTap	ReadAlou	ExtenTim
10/22/2012 21:16	3	3	3	3
10/22/2012 21:33	3	4	3	3
10/23/2012 8:09	4	4	4	4
10/23/2012 8:40	4	4	4	1
10/23/2012 10:41	3	3	2	1
10/23/2012 13:35	3	3	3	2
10/24/2012 15:22	3	4	2	2
10/24/2012 23:03	2	2	2	2
10/25/2012 7:23	2	4	4	4
10/25/2012 9:29	3	3	3	1
10/27/2012 12:33	3	3	3	1
11/1/2012 9:27	2	4	4	2
11/1/2012 10:47	4	4	3	4
11/5/2012 9:24	4	2	2	4
11/5/2012 10:00	2	4	2	2
11/5/2012 12:23	1	4	2	4
11/5/2012 13:55	3	4	3	3
11/6/2012 12:34	2	4	3	1
11/6/2012 14:45	2	2	2	2
11/6/2012 14:49	2	2	2	3
11/12/2012 14:58	1	2	3	2
11/17/2012 21:54	1	4	3	2
11/18/2012 5:35	2	4	4	1
11/18/2012 19:08	3	4	2	1
11/19/2012 14:41	3	3	3	2
11/20/2012 8:22	2	2	2	2
11/20/2012 9:30	3	4	4	3
11/20/2012 9:39	2	1	2	2
11/20/2012 10:51	4	4	4	4
11/20/2012 11:16	2	1	3	2
11/20/2012 11:42	4	2	3	2
11/20/2012 12:45	2	2	3	3
11/20/2012 13:06	2	4	4	4
11/20/2012 14:55	2	3	2	2
11/20/2012 15:29	3	4	3	1
11/24/2012 21:00	4	4	2	3
11/25/2012 19:10	3	2	3	2
11/26/2012 20:48	2	4	4	2
11/26/2012 20:50	3	3	3	3
11/26/2012 20:59	3	2	2	2
11/26/2012 21:24	3	3	3	3
11/26/2012 21:24	4	4	3	1
11/26/2012 21:29	3	4	2	2
11/26/2012 22:21	3	3	2	1
11/26/2012 22:55	2	4	2	2
11/27/2012 6:49	1	3	2	1
11/27/2012 7:18	2	2	2	2
11/27/2012 7:26	3	4	2	2
11/27/2012 8:38	3	2	2	3
11/27/2012 8:46	2	4	3	2
11/27/2012 8:55	2	4	2	2
11/27/2012 8:57	2	2	2	2
11/27/2012 9:25	2	4	3	3
11/27/2012 10:53	2	3	2	3
11/27/2012 15:36	4	4	3	3
11/27/2012 15:42	2	4	4	3
11/28/2012 7:21	2	4	2	3
11/28/2012 9:33	1	2	2	2

TimeStam	ShortAss	AudioTap	ReadAlou	ExtenTim
11/28/2012 21:57	2	2	2	2
11/29/2012 8:34	2	3	2	2
11/29/2012 9:59	4	4	4	4
11/29/2012 16:01	2	4	2	2
11/30/2012 13:05	2	2	2	2
11/30/2012 15:22	4	4	2	3
12/3/2012 5:15	2	4	2	2
12/3/2012 5:30	3	3	2	3
12/3/2012 7:51	3	3	3	3
12/3/2012 13:11	2	2	3	3
12/3/2012 13:32	3	4	2	2
12/3/2012 14:20	2	4	2	2
12/3/2012 18:21	1	2	2	2
12/4/2012 15:31	3	3	3	3
12/4/2012 17:50	4	3	3	4
12/4/2012 19:13	4	2	2	2
12/4/2012 19:56	2	2	3	2
12/4/2012 20:06	2	4	4	2
12/4/2012 20:22	1	2	4	3
12/4/2012 20:40	3	3	3	2
12/4/2012 23:11	3	3	1	1
12/5/2012 7:32	4	4	2	2
12/5/2012 8:14	2	3	2	1
12/5/2012 8:48	4	4	3	3
12/5/2012 8:55	1	3	3	2
12/5/2012 9:50	2	4	2	2
12/5/2012 11:15	2	4	4	4
12/5/2012 11:29	2	2	2	2
12/5/2012 11:48	3	4	3	3
12/5/2012 11:52	3	4	1	2
12/5/2012 14:56	2	4	2	2
12/5/2012 15:54	2	3	3	1
12/5/2012 16:05	2	2	2	1
12/5/2012 16:34	4	4	3	2
12/5/2012 18:31	2	4	4	2
12/5/2012 22:40	3	4	3	3
12/6/2012 7:28	4	4	1	1
12/6/2012 9:10	4	4	3	3
12/6/2012 9:12	3	4	2	2
12/6/2012 11:24	3	4	2	2
12/6/2012 12:16	2	4	2	3
12/6/2012 12:33	4	4	3	3
12/6/2012 13:22	3	4	2	1
12/6/2012 14:37	2	2	2	1
12/6/2012 14:38	2	4	2	2
12/6/2012 15:01	2	4	2	2
12/6/2012 16:00	4	4	3	3
12/6/2012 19:16	4	4	4	4
12/6/2012 19:27	2	4	2	4
12/6/2012 20:31	4	4	3	3
12/6/2012 20:46	2	2	2	2
12/6/2012 21:56	3	4	2	3
12/7/2012 7:41	2	4	3	2
12/7/2012 8:05	2	4	3	3
12/7/2012 8:57	2	4	2	2
12/7/2012 9:30	3	3	3	3
12/7/2012 11:15	1	MS1	1	2
12/7/2012 11:37	4	2	2	2

TimeStam	ShortAss	AudioTap	ReadAlou	ExtenTim
12/7/2012 13:32	2	3	3	2
12/7/2012 13:36	2	4	2	2
12/7/2012 15:37	3	3	3	3
12/10/2012 5:49	3	4	3	3
12/10/2012 10:09	2	2	2	1
12/11/2012 10:16	2	4	3	2
12/11/2012 20:07	2	2	2	1
12/11/2012 22:50	4	4	2	1
12/12/2012 7:59	4	2	4	4
12/12/2012 8:26	3	4	2	2
12/12/2012 9:08	2	4	2	2
12/12/2012 9:24	2	4	2	2
12/12/2012 9:25	2	4	2	1
12/12/2012 10:37	3	3	3	3
12/12/2012 15:38	4	4	4	4
12/12/2012 20:47	2	2	2	2
12/17/2012 10:45	2	4	2	2
3/1/2013 9:31	2	4	3	1
3/1/2013 11:51	1	3	3	3
3/2/2013 19:56	3	3	2	3
3/2/2013 20:40	3	1	3	3
3/3/2013 0:23	3	2	3	3
3/3/2013 16:03	3	3	3	3
3/3/2013 16:16	2	4	2	3
3/3/2013 16:33	4	4	3	3
3/3/2013 16:43	2	4	4	1
3/3/2013 17:04	3	4	2	3
3/3/2013 17:19	4	4	3	2
3/3/2013 17:32	2	4	2	2
3/3/2013 17:35	2	4	3	3
3/3/2013 17:41	4	4	2	2
3/3/2013 17:45	2	4	2	2
3/3/2013 17:53	4	4	4	4

TimeStam	ComBasIn	FreqFeed	IgnorBeh	TeachPos
10/22/2012 21:16	3	3	3	3
10/22/2012 21:33	4	2	2	3
10/23/2012 8:09	3	3	3	3
10/23/2012 8:40	3	3	3	3
10/23/2012 10:41	3	2	3	3
10/23/2012 13:35	3	2	2	3
10/24/2012 15:22	4	3	3	3
10/24/2012 23:03	2	1	3	2
10/25/2012 7:23	4	3	2	3
10/25/2012 9:29	3	3	3	3
10/27/2012 12:33	3	2	2	3
11/1/2012 9:27	4	2	2	3
11/1/2012 10:47	3	2	3	3
11/5/2012 9:24	2	3	3	3
11/5/2012 10:00	2	2	3	2
11/5/2012 12:23	3	2	2	3
11/5/2012 13:55	3	3	2	3
11/6/2012 12:34	3	3	3	3
11/6/2012 14:45	2	3	2	2
11/6/2012 14:49	2	1	3	2
11/12/2012 14:58	3	2	3	3
11/17/2012 21:54	3	2	2	3
11/18/2012 5:35	2	2	1	3
11/18/2012 19:08	2	2	3	2
11/19/2012 14:41	2	2	3	3
11/20/2012 8:22	2	2	2	2
11/20/2012 9:30	3	3	3	3
11/20/2012 9:39	2	2	2	3
11/20/2012 10:51	2	4	2	2
11/20/2012 11:16	3	2	1	2
11/20/2012 11:42	2	3	2	3
11/20/2012 12:45	2	3	2	2
11/20/2012 13:06	1	2	2	3
11/20/2012 14:55	3	3	3	3
11/20/2012 15:29	2	3	2	3
11/24/2012 21:00	4	1	3	3
11/25/2012 19:10	2	3	3	3
11/26/2012 20:48	4	2	2	3
11/26/2012 20:50	3	3	3	3
11/26/2012 20:59	4	2	3	3
11/26/2012 21:24	3	3	3	3
11/26/2012 21:24	3	3	2	3
11/26/2012 21:29	2	3	2	3
11/26/2012 22:21	3	3	2	3
11/26/2012 22:55	2	3	2	2
11/27/2012 6:49	2	2	2	3
11/27/2012 7:18	2	3	2	3
11/27/2012 7:26	2	3	2	3
11/27/2012 8:38	2	2	3	2
11/27/2012 8:46	2	2	4	3
11/27/2012 8:55	4	3	3	3
11/27/2012 8:57	2	2	2	3
11/27/2012 9:25	2	2	4	4
11/27/2012 10:53	4	3	3	3
11/27/2012 15:36	4	3	4	3
11/27/2012 15:42	3	2	4	2
11/28/2012 7:21	2	3	3	3
11/28/2012 9:33	2	2	2	2

TimeStam	ComBasIn	FreqFeed	IgnorBeh	TeachPos
11/28/2012 21:57	3	2	2	2
11/29/2012 8:34	4	4	4	2
11/29/2012 9:59	2	2	4	2
11/29/2012 16:01	4	2	1	2
11/30/2012 13:05	4	2	1	3
11/30/2012 15:22	3	3	2	2
12/3/2012 5:15	4	2	2	2
12/3/2012 5:30	3	3	2	4
12/3/2012 7:51	2	3	3	2
12/3/2012 13:11	2	2	1	2
12/3/2012 13:32	2	3	3	3
12/3/2012 14:20	4	2	2	2
12/3/2012 18:21	2	3	1	3
12/4/2012 15:31	3	3	3	3
12/4/2012 17:50	3	3	2	3
12/4/2012 19:13	3	3	3	3
12/4/2012 19:56	3	3	2	3
12/4/2012 20:06	4	3	4	4
12/4/2012 20:22	4	4	3	3
12/4/2012 20:40	1	3	2	3
12/4/2012 23:11	3	2	3	3
12/5/2012 7:32	4	3	3	3
12/5/2012 8:14	3	3	1	2
12/5/2012 8:48	3	3	3	3
12/5/2012 8:55	2	3	3	2
12/5/2012 9:50	2	2	2	2
12/5/2012 11:15	2	2	3	3
12/5/2012 11:29	2	2	2	2
12/5/2012 11:48	3	4	3	3
12/5/2012 11:52	2	3	2	3
12/5/2012 14:56	2	2	2	3
12/5/2012 15:54	3	2	2	3
12/5/2012 16:05	2	2	1	3
12/5/2012 16:34	4	2	2	3
12/5/2012 18:31	3	2	2	2
12/5/2012 22:40	4	4	3	3
12/6/2012 7:28	2	2	2	1
12/6/2012 9:10	2	3	2	3
12/6/2012 9:12	4	3	2	3
12/6/2012 11:24	4	3	3	3
12/6/2012 12:16	3	3	2	4
12/6/2012 12:33	4	3	3	3
12/6/2012 13:22	3	3	2	3
12/6/2012 14:37	2	2	2	3
12/6/2012 14:38	4	2	2	2
12/6/2012 15:01	2	2	3	2
12/6/2012 16:00	3	3	2	3
12/6/2012 19:16	3	3	3	3
12/6/2012 19:27	4	3	3	3
12/6/2012 20:31	3	3	3	3
12/6/2012 20:46	2	3	2	3
12/6/2012 21:56	2	3	3	2
12/7/2012 7:41	2	3	2	3
12/7/2012 8:05	3	3	3	3
12/7/2012 8:57	4	4	2	2
12/7/2012 9:30	4	3	3	3
12/7/2012 11:15	3	2	2	2
12/7/2012 11:37	2	2	2	4

TimeStam	ComBasIn	FreqFeed	IgnorBeh	TeachPos
12/7/2012 13:32	3	2	2	3
12/7/2012 13:36	3	3	2	3
12/7/2012 15:37	3	3	3	3
12/10/2012 5:49	3	3	2	3
12/10/2012 10:09	3	2	2	3
12/11/2012 10:16	4	2	2	3
12/11/2012 20:07	1	2	1	2
12/11/2012 22:50	4	2	2	2
12/12/2012 7:59	2	2	2	2
12/12/2012 8:26	2	1	2	1
12/12/2012 9:08	2	2	2	2
12/12/2012 9:24	2	2	2	2
12/12/2012 9:25	2	2	2	3
12/12/2012 10:37	2	2	3	2
12/12/2012 15:38	4	3	3	3
12/12/2012 20:47	4	2	2	2
12/17/2012 10:45	3	2	2	2
3/1/2013 9:31	2	3	3	3
3/1/2013 11:51	1	1	3	3
3/2/2013 19:56	3	3	2	3
3/2/2013 20:40	3	3	2	3
3/3/2013 0:23	3	2	4	3
3/3/2013 16:03	4	3	1	2
3/3/2013 16:16	4	2	2	2
3/3/2013 16:33	3	3	2	3
3/3/2013 16:43	4	3	2	2
3/3/2013 17:04	2	2	1	3
3/3/2013 17:19	4	3	3	3
3/3/2013 17:32	3	2	2	2
3/3/2013 17:35	2	2	2	2
3/3/2013 17:41	4	4	2	2
3/3/2013 17:45	2	2	1	1
3/3/2013 17:53	4	4	4	4

TimeStam	ModAssig	SlowPace	AdendSch	ParTeCom
10/22/2012 21:16	3	3	3	2
10/22/2012 21:33	3	3	4	2
10/23/2012 8:09	4	4	4	3
10/23/2012 8:40	4	1	4	3
10/23/2012 10:41	3	2	3	3
10/23/2012 13:35	3	2	2	2
10/24/2012 15:22	2	3	2	3
10/24/2012 23:03	2	2	3	2
10/25/2012 7:23	4	2	4	3
10/25/2012 9:29	3	1	3	3
10/27/2012 12:33	2	3	3	3
11/1/2012 9:27	2	3	4	4
11/1/2012 10:47	2	3	3	2
11/5/2012 9:24	4	4	4	3
11/5/2012 10:00	3	2	4	3
11/5/2012 12:23	2	4	2	3
11/5/2012 13:55	3	3	3	3
11/6/2012 12:34	2	2	4	1
11/6/2012 14:45	2	2	2	2
11/6/2012 14:49	2	4	4	2
11/12/2012 14:58	2	2	1	3
11/17/2012 21:54	1	1	1	2
11/18/2012 5:35	4	1	2	2
11/18/2012 19:08	2	2	3	2
11/19/2012 14:41	2	4	2	3
11/20/2012 8:22	3	3	3	3
11/20/2012 9:30	4	4	3	3
11/20/2012 9:39	2	2	3	2
11/20/2012 10:51	4	4	4	1
11/20/2012 11:16	2	2	2	2
11/20/2012 11:42	2	2	3	2
11/20/2012 12:45	2	1	3	2
11/20/2012 13:06	2	4	2	1
11/20/2012 14:55	4	4	3	3
11/20/2012 15:29	3	4	2	2
11/24/2012 21:00	4	2	4	2
11/25/2012 19:10	2	3	3	2
11/26/2012 20:48	2	2	3	3
11/26/2012 20:50	3	3	3	3
11/26/2012 20:59	3	2	3	2
11/26/2012 21:24	3	4	4	3
11/26/2012 21:24	2	4	4	3
11/26/2012 21:29	2	2	4	2
11/26/2012 22:21	3	4	4	3
11/26/2012 22:55	2	2	3	2
11/27/2012 6:49	1	1	4	3
11/27/2012 7:18	2	2	3	2
11/27/2012 7:26	3	2	2	3
11/27/2012 8:38	3	3	2	3
11/27/2012 8:46	1	2	2	3
11/27/2012 8:55	4	4	2	3
11/27/2012 8:57	2	2	2	2
11/27/2012 9:25	2	2	3	2
11/27/2012 10:53	2	1	3	3
11/27/2012 15:36	4	4	4	3
11/27/2012 15:42	2	2	4	2
11/28/2012 7:21	2	MS	2	1
11/28/2012 9:33	2	4	2	2

TimeStam	ModAssig	SlowPace	AdendSch	ParTeCom
11/28/2012 21:57	2	2	4	2
11/29/2012 8:34	2	2	2	2
11/29/2012 9:59	4	4	4	4
11/29/2012 16:01	2	2	4	2
11/30/2012 13:05	2	2	3	3
11/30/2012 15:22	4	2	2	2
12/3/2012 5:15	3	4	4	2
12/3/2012 5:30	3	2	3	3
12/3/2012 7:51	3	3	3	3
12/3/2012 13:11	3	3	3	3
12/3/2012 13:32	4	4	2	3
12/3/2012 14:20	2	2	2	3
12/3/2012 18:21	3	3	3	3
12/4/2012 15:31	3	3	3	3
12/4/2012 17:50	4	4	2	3
12/4/2012 19:13	3	3	4	3
12/4/2012 19:56	2	2	3	3
12/4/2012 20:06	3	4	4	3
12/4/2012 20:22	4	4	4	2
12/4/2012 20:40	3	3	1	2
12/4/2012 23:11	2	4	3	2
12/5/2012 7:32	3	4	2	3
12/5/2012 8:14	2	2	2	2
12/5/2012 8:48	4	3	3	3
12/5/2012 8:55	3	1	1	2
12/5/2012 9:50	2	2	2	2
12/5/2012 11:15	4	4	3	3
12/5/2012 11:29	2	2	2	1
12/5/2012 11:48	3	3	2	3
12/5/2012 11:52	2	3	4	2
12/5/2012 14:56	2	2	4	2
12/5/2012 15:54	2	2	1	3
12/5/2012 16:05	2	2	2	2
12/5/2012 16:34	4	4	4	4
12/5/2012 18:31	2	2	4	2
12/5/2012 22:40	4	4	4	3
12/6/2012 7:28	1	4	3	1
12/6/2012 9:10	4	3	2	2
12/6/2012 9:12	4	3	4	2
12/6/2012 11:24	2	3	3	3
12/6/2012 12:16	2	2	2	2
12/6/2012 12:33	4	3	4	3
12/6/2012 13:22	3	2	2	2
12/6/2012 14:37	2	2	2	3
12/6/2012 14:38	3	4	2	2
12/6/2012 15:01	2	2	2	2
12/6/2012 16:00	4	2	4	3
12/6/2012 19:16	4	4	4	3
12/6/2012 19:27	4	4	4	2
12/6/2012 20:31	4	4	4	3
12/6/2012 20:46	3	3	3	3
12/6/2012 21:56	2	2	3	3
12/7/2012 7:41	2	2	2	3
12/7/2012 8:05	2	3	2	3
12/7/2012 8:57	2	4	2	2
12/7/2012 9:30	3	3	3	3
12/7/2012 11:15	2	1	3	2
12/7/2012 11:37	2	1	2	2

TimeStam	ModAssig	SlowPace	AdendSch	ParTeCom
12/7/2012 13:32	2	2	2	2
12/7/2012 13:36	3	3	3	3
12/7/2012 15:37	3	4	3	3
12/10/2012 5:49	3	2	4	3
12/10/2012 10:09	4	4	1	2
12/11/2012 10:16	2	3	2	2
12/11/2012 20:07	2	1	2	1
12/11/2012 22:50	1	1	1	3
12/12/2012 7:59	4	1	2	2
12/12/2012 8:26	3	2	4	2
12/12/2012 9:08	2	2	2	2
12/12/2012 9:24	2	2	4	2
12/12/2012 9:25	2	3	4	2
12/12/2012 10:37	3	3	4	2
12/12/2012 15:38	4	4	4	3
12/12/2012 20:47	2	2	3	2
12/17/2012 10:45	2	2	2	3
3/1/2013 9:31	2	1	4	3
3/1/2013 11:51	3	1	3	3
3/2/2013 19:56	3	3	3	3
3/2/2013 20:40	3	4	3	3
3/3/2013 0:23	2	3	2	2
3/3/2013 16:03	3	2	2	3
3/3/2013 16:16	4	1	2	2
3/3/2013 16:33	4	2	4	3
3/3/2013 16:43	3	4	3	2
3/3/2013 17:04	4	3	3	2
3/3/2013 17:19	4	4	4	3
3/3/2013 17:32	1	2	1	1
3/3/2013 17:35	2	2	2	2
3/3/2013 17:41	4	3	2	3
3/3/2013 17:45	2	2	2	2
3/3/2013 17:53	4	4	3	2

TimeStam	PhysicMo
10/22/2012 21:16	3
10/22/2012 21:33	1
10/23/2012 8:09	3
10/23/2012 8:40	3
10/23/2012 10:41	3
10/23/2012 13:35	3
10/24/2012 15:22	3
10/24/2012 23:03	2
10/25/2012 7:23	3
10/25/2012 9:29	3
10/27/2012 12:33	3
11/1/2012 9:27	3
11/1/2012 10:47	4
11/5/2012 9:24	2
11/5/2012 10:00	2
11/5/2012 12:23	3
11/5/2012 13:55	3
11/6/2012 12:34	3
11/6/2012 14:45	3
11/6/2012 14:49	3
11/12/2012 14:58	2
11/17/2012 21:54	3
11/18/2012 5:35	2
11/18/2012 19:08	2
11/19/2012 14:41	3
11/20/2012 8:22	3
11/20/2012 9:30	3
11/20/2012 9:39	2
11/20/2012 10:51	2
11/20/2012 11:16	2
11/20/2012 11:42	3
11/20/2012 12:45	3
11/20/2012 13:06	2
11/20/2012 14:55	3
11/20/2012 15:29	3
11/24/2012 21:00	2
11/25/2012 19:10	3
11/26/2012 20:48	3
11/26/2012 20:50	3
11/26/2012 20:59	3
11/26/2012 21:24	3
11/26/2012 21:24	3
11/26/2012 21:29	2
11/26/2012 22:21	2
11/26/2012 22:55	3
11/27/2012 6:49	4
11/27/2012 7:18	3
11/27/2012 7:26	3
11/27/2012 8:38	2
11/27/2012 8:46	3
11/27/2012 8:55	3
11/27/2012 8:57	3
11/27/2012 9:25	3
11/27/2012 10:53	3
11/27/2012 15:36	3
11/27/2012 15:42	2
11/28/2012 7:21	3
11/28/2012 9:33	2

TimeStam	PhysicMo
11/28/2012 21:57	2
11/29/2012 8:34	2
11/29/2012 9:59	4
11/29/2012 16:01	2
11/30/2012 13:05	2
11/30/2012 15:22	3
12/3/2012 5:15	2
12/3/2012 5:30	3
12/3/2012 7:51	3
12/3/2012 13:11	3
12/3/2012 13:32	4
12/3/2012 14:20	2
12/3/2012 18:21	3
12/4/2012 15:31	3
12/4/2012 17:50	3
12/4/2012 19:13	3
12/4/2012 19:56	3
12/4/2012 20:06	4
12/4/2012 20:22	2
12/4/2012 20:40	3
12/4/2012 23:11	3
12/5/2012 7:32	2
12/5/2012 8:14	2
12/5/2012 8:48	3
12/5/2012 8:55	2
12/5/2012 9:50	2
12/5/2012 11:15	3
12/5/2012 11:29	2
12/5/2012 11:48	3
12/5/2012 11:52	2
12/5/2012 14:56	3
12/5/2012 15:54	1
12/5/2012 16:05	3
12/5/2012 16:34	4
12/5/2012 18:31	2
12/5/2012 22:40	2
12/6/2012 7:28	3
12/6/2012 9:10	2
12/6/2012 9:12	3
12/6/2012 11:24	3
12/6/2012 12:16	3
12/6/2012 12:33	3
12/6/2012 13:22	2
12/6/2012 14:37	3
12/6/2012 14:38	2
12/6/2012 15:01	3
12/6/2012 16:00	4
12/6/2012 19:16	3
12/6/2012 19:27	3
12/6/2012 20:31	4
12/6/2012 20:46	3
12/6/2012 21:56	3
12/7/2012 7:41	3
12/7/2012 8:05	3
12/7/2012 8:57	4
12/7/2012 9:30	3
12/7/2012 11:15	2
12/7/2012 11:37	2

TimeStam	PhysicMo
12/7/2012 13:32	2
12/7/2012 13:36	3
12/7/2012 15:37	3
12/10/2012 5:49	3
12/10/2012 10:09	3
12/11/2012 10:16	3
12/11/2012 20:07	2
12/11/2012 22:50	3
12/12/2012 7:59	2
12/12/2012 8:26	2
12/12/2012 9:08	2
12/12/2012 9:24	2
12/12/2012 9:25	3
12/12/2012 10:37	2
12/12/2012 15:38	3
12/12/2012 20:47	3
12/17/2012 10:45	2
3/1/2013 9:31	3
3/1/2013 11:51	3
3/2/2013 19:56	3
3/2/2013 20:40	3
3/3/2013 0:23	3
3/3/2013 16:03	3
3/3/2013 16:16	2
3/3/2013 16:33	3
3/3/2013 16:43	3
3/3/2013 17:04	2
3/3/2013 17:19	3
3/3/2013 17:32	2
3/3/2013 17:35	3
3/3/2013 17:41	3
3/3/2013 17:45	3
3/3/2013 17:53	3

Table 1: Statistics for Demographics

		Teacher Gender	Teacher Age	Teacher undergraduate degree	Teacher highest education level	Years of teaching	Primary certification	Teacher Highly Qualified	Grade levels taught
N	Valid	149	149	149	149	149	149	149	149
	Missing	0	0	0	0	0	0	0	0
Mean		1.78	4.1	1.98	1.64	2.61	2.66	1.04	3.55
Std. Error of Mean		0.034	0.147	0.08	0.057	0.087	0.15	0.016	0.178
Median		2	4	2	2	3	2	1	3
Mode		2	5	1	1	2	1	1	2
Std. Deviation		0.417	1.792	0.976	0.69	1.057	1.829	0.197	2.173
Variance		0.174	3.213	0.952	0.476	1.118	3.346	0.039	4.722
Skewness		-1.355	0.175	0.041	0.869	-0.035	0.716	4.725	0.397
Std. Error of Skewness		0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis		-0.166	-1.013	-1.967	0.553	-1.232	-0.956	20.6	-1.434
Std. Error of Kurtosis		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range		1	6	2	3	3	5	1	6
Minimum		1	1	1	1	1	1	1	1
Maximum		2	7	3	4	4	6	2	7
Sum		265	611	295	244	389	397	155	529

Table 1.1: Teacher Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'male'	33	22.1	22.1	22.1
	2 = 'female'	116	77.9	77.9	100
	Total	149	100	100	

Table 1.2: Teacher Age

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = '20-24'	7	4.7	4.7	4.7
	2 = '25-29'	28	18.8	18.8	23.5
	3 = '30-34'	26	17.4	17.4	40.9
	4 = '35-39'	26	17.4	17.4	58.4
	5 = '40-44'	29	19.5	19.5	77.9
	6 = '45-49'	10	6.7	6.7	84.6
	7 = '50 and Up'	23	15.4	15.4	100
	Total	149	100	100	

Table 1.3: Teacher undergraduate degree

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Elementary Education'	72	48.3	48.3	48.3
	2 = 'Special Education'	8	5.4	5.4	53.7
	3 = 'Other'	69	46.3	46.3	100
	Total	149	100	100	

Table 1.4: Teacher highest education level

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'BS-A'	70	47	47	47
	2 = 'MS-A'	65	43.6	43.6	90.6
	3 = 'EdS'	12	8.1	8.1	98.7
	4 = 'PhD-EdD'	2	1.3	1.3	100
	Total	149	100	100	

Table 1.5: Years of teaching

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = '1-3'	25	16.8	16.8	16.8
	2 = '4-9'	48	32.2	32.2	49
	3 = '10-15'	36	24.2	24.2	73.2
	4 = '16 and Over'	40	26.8	26.8	100
	Total	149	100	100	

Table 1.6: Primary certification

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Elem Ed'	61	40.9	40.9	40.9
	2 = 'Reading-LA'	26	17.4	17.4	58.4
	3 = 'Math'	16	10.7	10.7	69.1

Valid		Frequency	Percent	Valid Percent	Cumulative Percent
	4 = 'Science'	14	9.4	9.4	78.5
	5 = 'Social Studies'	12	8.1	8.1	86.6
	6 = 'Other'	20	13.4	13.4	100
	Total	149	100	100	

Table 1.7: Teacher Highly Qualified

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	143	96	96	96
	2 = 'No'	6	4	4	100
	Total	149	100	100	

Table 1.8: Grade levels taught

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = '6'	29	19.5	19.5	19.5
	2 = '7'	37	24.8	24.8	44.3
	3 = '8'	27	18.1	18.1	62.4
	4 = '6,7'	3	2	2	64.4
	5 = '7,8'	3	2	2	66.4
	6 = '6,7,8'	32	21.5	21.5	87.9
	7 = 'Other'	18	12.1	12.1	100
	Total	149	100	100	

Table 2: Statistics for General Questions Regarding Students With ADHD

		Students having ADHD	Estimate ratio of boys to girls with ADHD	Enough training in ADHD	Pre-service course in Interventions	Voluntary in-service training on ADH	Voluntary on-line courses on ADHD	Hours per mo collaborate with the sped staff	ADHD interventions in reg ed successful	ADHD pulled out from reg ed to small groups
N	Valid	149	149	149	149	149	149	149	149	149
	Missing	0	0	0	0	0	0	0	0	0
Mean		2.77	2.95	1.6	1.17	1.27	1.49	5.46	1.01	1.69
Std. Error of Mean		0.101	0.077	0.04	0.031	0.036	0.041	0.489	0.009	0.038
Median		3	3	2	1	1	1	5	1	2
Mode		3	3	2	1	1	1	5	1	2
Std. Deviation		1.227	0.943	0.492	0.381	0.445	0.502	5.967	0.115	0.464
Variance		1.505	0.889	0.242	0.145	0.198	0.252	35.601	0.013	0.215
Skewness		0.237	-0.088	-0.401	1.733	1.056	0.041	8.361	8.543	-0.837
Std. Error of Skewness		0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis		-0.376	-0.645	-1.864	1.016	-0.898	-2.026	71.641	71.945	-1.318
Std. Error of Kurtosis		0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range		6	4	1	1	1	1	60	1	1
Minimum		0	1	1	1	1	1	1	1	1
Maximum		6	5	2	2	2	2	61	2	2
Sum		412	439	238	175	189	222	813	151	252

Table 2.1: Students having ADHD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	2	1.3	1.3	1.3
	1 = '1'	21	14.1	14.1	15.4
	2 = '2'	40	26.8	26.8	42.3
	3 = '3'	50	33.6	33.6	75.8
	4 = '4'	20	13.4	13.4	89.3
	5 = '5'	15	10.1	10.1	99.3
	6 = 'other'	1	0.7	0.7	100
Total		149	100	100	

Table 2.2: Estimate ratio of boys to girls with ADHD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = '1 to 1'	8	5.4	5.4	5.4
	2 = '2 to 1'	42	28.2	28.2	33.6
	3 = '3 to 1'	53	35.6	35.6	69.1
	4 = '4 to 1'	42	28.2	28.2	97.3
	5 = 'other'	4	2.7	2.7	100
	Total	149	100	100	

Table 2.3: Enough training in ADHD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	60	40.3	40.3	40.3
	2 = 'No'	89	59.7	59.7	100
	Total	149	100	100	

Table 2.4: Pre-service course in Interventions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	123	82.6	82.6	82.6
	2 = 'No'	26	17.4	17.4	100
	Total	149	100	100	

Table 2.5: Voluntary in-service training on ADHD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	109	73.2	73.2	73.2
	2 = 'No'	40	26.8	26.8	100
	Total	149	100	100	

Table 2.6: Voluntary on-line courses on ADHD

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	76	51	51	51
	2 = 'No'	73	49	49	100
	Total	149	100	100	

Table 2.7: Hours per month collaborate with the sped staff

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'never'	3	2	2	2
	3 = '1'	1	0.7	0.7	2.7
	4 = '2'	50	33.6	33.6	36.2
	5 = '3'	64	43	43	79.2
	6 = 'other'	28	18.8	18.8	98
	8	1	0.7	0.7	98.7
	50	1	0.7	0.7	99.3
	61	1	0.7	0.7	100
	Total	149	100	100	

Table 2.8: ADHD interventions in reg ed successful

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	147	98.7	98.7	98.7
	2 = 'No'	2	1.3	1.3	100
	Total	149	100	100	

Table 2.9: ADHD pulled out from reg ed to small groups

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 = 'Yes'	46	30.9	30.9	30.9
	2 = 'No'	103	69.1	69.1	100
	Total	149	100	100	

Table 3: Statistics on Intervention

	Reinforcement of Positive Behaviors	Self-Monitoring-Self Evaluation	Peer-Tutoring	Shortened Assignments	Audio Tapes-Devices	Read Aloud	Extended Time	Computer-Based Instruction
N — Valid	149	149	149	149	149	149	149	149
N — Missing	0	0	0	0	0	0	0	0
Mean	2.36	2.37	2.41	2.62	3.31	2.6	2.34	2.82
Std. Error of Mean	0.05	0.085	0.065	0.072	0.073	0.062	0.071	0.069
Median	2	2	2	2	4	2	2	3
Mode	2	2	2	2	4	2	2	2
Std. Deviation	0.605	1.042	0.797	0.881	0.892	0.752	0.867	0.839
Variance	0.366	1.086	0.635	0.777	0.796	0.565	0.751	0.703
Skewness	0.573	0.409	0.504	0.215	-0.882	0.413	0.236	0.075
Std. Error of Skewness	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis	0.259	-1.014	-0.217	-0.87	-0.571	-0.567	-0.559	-1.056
Std. Error of Kurtosis	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range	3	3	3	3	3	3	3	3
Minimum	1	1	1	1	1	1	1	1
Maximum	4	4	4	4	4	4	4	4
Sum	351	353	359	391	493	388	348	420

	Frequent Feedback	Ignore inconsequential behavior	Teacher positioning intervention	Modified assignments intervention	Slower pacing intervention	Agenda Daily Schedule for ADHD Students	Parent-Teacher Communication	Opportunities for physical movement
N — Valid	149	149	149	149	149	149	149	149
N — Missing	0	0	0	0	0	0	0	0
Mean	2.54	2.4	2.69	2.72	2.67	2.87	2.46	2.72
Std. Error of Mean	0.053	0.059	0.048	0.072	0.081	0.075	0.052	0.049
Median	3	2	3	3	3	3	2	3
Mode	3	2	3	2	2	2	3	3
Std. Deviation	0.652	0.724	0.58	0.878	0.989	0.913	0.632	0.594
Variance	0.425	0.525	0.336	0.771	0.979	0.833	0.399	0.352
Skewness	0.059	0.208	-0.473	0.221	0.023	-0.162	-0.267	-0.215
Std. Error of Skewness	0.199	0.199	0.199	0.199	0.199	0.199	0.199	0.199
Kurtosis	-0.217	-0.146	0.264	-1.083	-1.142	-1.045	-0.304	0.043
Std. Error of Kurtosis	0.395	0.395	0.395	0.395	0.395	0.395	0.395	0.395
Range	3	3	3	3	3	3	3	3
Minimum	1	1	1	1	1	1	1	1
Maximum	4	4	4	4	4	4	4	4
Sum	379	357	401	405	398	427	367	405

Appendix E – Interventions for Differentiating Instruction with ADHD Students

a. Physical Environment: including items suggesting classroom changes and elements
outside instructional accommodations lesson modifications

reinforcement of positive behaviors intervention	patience
frequent feedback	timers
slower pacing	provide a quiet place to work
specific agenda/daily schedule	mobile learning labs
parent-teacher communication	assign them a job i.e. sharping pencils
opportunities for physical movement	foresee problems that may occur
teacher positioning	consistent monitoring of what they are doing
ignoring inconsequential behavior	identifying what works for that particular student
physical motions/activity	coloring tools (such as highlighters or markers to differentiate steps in math problems, etc.),
frequent breaks	
small groups	stress relievers such as stress ball, clay, bounce balls to sit on, squishy animals
special/flexible seating	physical motions/movements (associated with content)
taking breaks	
allow some talking	use key words like "focus" that bring them back on task
interest groups	give short goals to focus on instead of getting bogged down with a huge task
work stations	
learning contracts	consistency, firm structure, and clear directions
literature circles	ask special education for best practices
tiered activities and labs	use dry-erase boards to assess learning
incentive charts	discuss effective strategies with past teachers
post it notes	use play-dough to create illustrations
notebooks	praise when student uses self-control
don't give up	
be adaptable	physical motions/activity
	specific tasks before or after our class

acknowledging student

frequently redirecting student

allow them to stand while teaching

placing a schedule of the day's events on the students desk with they can check it off.
pacing

special/flexible seating

repetition

one-on-one w/ ea or sped teacher

allow students to color

use of organizers

use of study guides

tiered activities and labs

independent studies

interest groups

literature circles

work stations

adhere to ieps

reinforcements

use media

utilize behavioral intervention plan

outlining notes or lessons

don't give up

specific tasks and goals

four corners

hand motions

b. Accommodations: relating to direct instructional practices and strategies

self-monitoring/self-evaluation

peer-tutoring

audio tapes/devices

read aloud

using a variety of teaching styles

visual representations (ppts, streaming videos)

music (raps to remember steps of algorithms)

modeling math through many small steps

varying instructions

one-on-one w/ ea or sped teacher

allow for constructive discussions

foldables

modeling

allow some talking

re-teaching

variety in all lessons

multiple texts

project-based

hands-on activities

frequent asking of questions

cut straight to the objective with their assignments

use child's learning style

make the steps short and simple (very clear)

10-15 minute lectures (short is key)

manipulatives

give copy of PowerPoint handouts with note version to the side

chunking the class period so that activities are changing every few minutes

pictorial representations (any kind of incorporation of drawing/art in math)

using different materials/ methods of presenting the lesson

c. Modifications: relating to instructional lessons and assignments only

shortened assignments

personal set of directions

extended time

extra time for redirection

computer-based instruction

compacted curriculum

modified assignments

student choice of activities

list 5 assignments and let them choose 2 to complete

allowing for different ways to show mastery of a topic or standard like the use of skits or other performance type assessment

use computer-based learning

individualized test prep

recording instruction to be viewed/listened to on the computer

multiple choice answers