To the Graduate Council:

I am submitting herewith a dissertation written by Mark Albert Carleton entitled "Pedagogy, ADD/ADHD, and Independent Schools: The Teacher's Role." I have examined the final copy of this dissertation for form and content and recommended that it be accepted in partial fulfillment of the requirements for the degree of Doctor of Education, with a major in Education.

Susan M. Benner, Major Professor

We have read this dissertation
And have recommended its acceptance:

Accepted for the Council:

Associate Vice Chancellor and
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PEDAGOGY, ADD/ADHD, AND INDEPENDENT SCHOOLS: THE TEACHER'S ROLE

A Dissertation
Presented for the
Doctor of Education
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Mark Albert Carleton
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DEDICATION

This dissertation is dedicated to my intelligent, patient, and beautiful wife, Laurel Landry Carleton:

"But you, O you,
So perfect and so peerless, are created
Of every creature's best."

"For thy sweet love rememb'red such wealth brings
That then I scorn to change my state with kings."

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ABSTRACT

The current state of pedagogy (specifically in private, independent high schools) for students (specifically adolescent students) diagnosed with Attention Deficit Disorder (ADD) and/or Attention Deficit-Hyperactivity Disorder (ADHD) is discussed in this study. The purposes of the study were: to determine whether independent high schools employ treatment teams to assess and oversee the programs planned for ADD/ADHD students, to determine whether teachers are included in these treatment teams, and to determine how independent high school teachers are responding to the pedagogical needs of ADD/ADHD students in their classes. A survey questionnaire was mailed to 100 private, independent high schools in order to obtain the information described above. It is concluded in this study that: (a) a majority of private, independent high schools are admitting adolescent students with characteristics of students who are diagnosed with ADD/ADHD, (b) teams composed of students, parents, classroom teachers, administrators, psychologists, and physicians put in place for addressing the pedagogical needs of students diagnosed with ADD/ADHD are not present in a majority of private, independent high schools, (c) teachers surveyed at private, independent high schools seem willing to apply the sorts of pedagogical approaches that research suggests are appropriate and effective for use with adolescents diagnosed with ADD/ADHD, (d) teachers surveyed at private, independent high schools are recognizing and addressing the needs on the part of their ADD/ADHD-diagnosed students for extra help with organization and learning/study skills, (e) training focused on students diagnosed with ADD/ADHD is available at private, independent high schools, but the degree to which

independent school teachers are utilizing it is variable, (f) independent school teachers are experiencing success with their students who are diagnosed with ADD/ADHD, but this success (according to anecdotal evidence) shows little pattern or consistency across schools for others to try to replicate, and (g) students diagnosed with ADD/ADHD in independent schools will find themselves in small (70% of respondents cited classes with 15 or fewer students), competitive classes where teachers will likely be aware of (and be employing) specific pedagogical approaches designed to answer their instructional needs.

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Chapter One

Introduction and Problem Statement

Much has been written over the past twenty years concerning learning disabilities and the headaches that they bring to those children and adolescents who suffer with them. Self-help books and research articles addressed to parents, teachers, and counselors attempt to make sense of these complex learning inhibitors. At the outset of the description of this study, it is important to provide the current definitions and criteria outlined in the *Diagnostic and Statistical Manual of Mental Disorders*, fourth edition (DSM-IV, 1994), which has placed Attention Deficit Disorder (ADD) under the larger umbrella of Attention Deficit-Hyperactivity Disorder (ADHD). (These definitions and criteria are reproduced in Appendix A.) For the purposes of this study, it was determined that many teachers are familiar with the older classification that included ADD/ADHD. Therefore, the combined term of ADD/ADHD was used in this study. In the following section of the first chapter of this study, the conditions known as Attention Deficit Disorder and Attention Deficit-Hyperactivity Disorder (ADD/ADHD) are introduced, their unique demands on adolescents examined, their connection to specific learning disabilities explored, and the role of independent schools in addressing these demands discussed.

Barkley (1990) has noted that when students with the learning differences known as ADD/ADHD succeed one time, psychologists, counselors, teachers and even parents hold that success against them for the rest of their lives. To be sure, few, if any, psychological or behavioral phenomena have received the amount or degree of notoriety

that ADD and ADHD have over the past twenty years. By 1980 over 7000 articles focusing on ADD/ADHD had reached the pages of psychological and educational journals and resource books (Maag & Reid, 1996). In addition, estimates of the percentage of the school-age population suffering from this disability vary as widely as 2% to 30%, providing ample evidence of the difficult nature of defining and classifying this educational/behavioral problem (Dowdy, Patton, Smith, & Polloway, 1998). Unfortunately, this wealth of information coupled with the prevalence in the schools has not always produced the sort of rich return for which many parents of or students with ADD/ADHD have been looking. More information on non-medical and/or pedagogical approaches that are successful especially for adolescents in the mainstream classroom needs to be brought forth. In fact, even more necessary is a study to substantiate what independent high schools are doing for and with these students. Physicians and psychologists have offered many theories about how best to address these problems in a medical or clinical setting. However, the same sort of emphasis (taken up recently) as to how educators can help students—especially adolescents—combat ADD/ADHD in the classroom needs more attention.

The unfair dilemma proposed by the previously mentioned comments of Barkley gives rise to a fact noted both by Bloomingdale, Swanson, Barkley, and Satterfield (1991) and Reid, Maag, Vasa, and Wright (1994): less information is available on how or how well adolescents with ADD/ADHD are being served in schools than is available on younger children. Indeed, it is the schools that are the environments and institutions in which these youngsters will theoretically spend more time than any other. So, with what

sort of attitude and with what sort of instructional philosophy are our schools approaching not only their larger population, but also their students with learning differences? Particularly for the purposes of this study, what sort of attitude toward adolescents with ADD/ADHD is present in the cultures of independent schools?

An informal browsing of selected independent school websites reveals that in word, at least, these schools' mission statements report a concern for the "individual" and for preparing him or her for success in the larger and more competitive "outside world." Indeed, phrases like "to the fullest extent of his or her potential," "reaching the whole child," "providing a climate of self-worth and self-exploration," "encouraging careful autonomy," and "the nurturing of each student's physical, intellectual, and spiritual life" pervade the mission statements of the nation's independent schools. Such statements of philosophy give credence to the observation that independent schools see themselves as primarily satisfying the needs in their students for independence and autonomy and are only secondarily interested in their needs for nurturing and support. Such an atmosphere of support is desirable, however, for those adolescents who are excited with the prospects of increased freedom and increased responsibility. What role, then, does the classroom teacher play in light of these prospects? Students with learning disabilities often need patient instructional nurturing and support from their teachers. Are the teachers of private, independent high schools providing this sort of support for their students diagnosed with ADD/ADHD? To be sure, students with learning disabilities may not seek the same sort of freedom or autonomy that their non-disabled peers have. Rather, they may just need more time to grow into the responsibilities and expectations that

adolescence allows—both in the classroom and out of it. Preparation for college may be a teacher's short-term goal, but participation in the world at large is his or her students' long-term reality—whether that student struggles with a learning difference or not.

Finally, in addition to their learning difficulties, adolescent students diagnosed with ADD/ADHD (like their peers) must also struggle with the psychological, emotional, and physical demands associated with their stage of development. Adolescents may have an especially uphill climb when it comes to surmounting the challenges associated with ADD/ADHD (Markel & Greenbaum, 1996). In light of the reportedly competitive atmospheres of independent schools highlighted above, the question of whether young men and women with ADD/ADHD attending such schools feel more stigmatized than their peers proves an interesting one to raise. If ADD/ADHD-challenged students in private, independent schools perceive themselves as in a more highly competitive environment, do they also (necessarily) consider themselves isolated as a result of their disabilities? Are students with ADD/ADHD attending private, independent high schools unlike their peers who find themselves in the "mainstream" classroom? That is, do adolescents with ADD/ADHD who are educated in independent schools feel that they are treated unfairly in terms of academic and educational expectations as compared to their classmates?

History and Background

ADD and ADHD when used together represent the complex combination of profound attention deficits coupled with the additionally perplexing component of hyperactivity. The terminology used in this study corresponds closely with the language

used in the DSM-IV (1994), which is the most comprehensive resource on these disorders. Dowdy *et al.* (1998) provide a worthwhile and comprehensive evolution of terminology and meanings associated with ADD/ADHD. Most instructive are the descriptions of the core behaviors (mentioned below), which ultimately serve to interfere with an individual's potential for learning (Silver, 1990). These behaviors—or, behavior irregularities—are often enmeshed within a complex environmental framework of poor or abnormal family interaction, psychological and social maladaptability, and flawed peer interaction (Hinshaw, 1992). So instead of merely being treated as a learning disability, ADD/ADHD demands that all of these constituent, environmental problems be addressed as well.

At the heart of ADD/ADHD are the characteristics put forth by the DSM-IV and refined and expanded by Flick (1998) and Dowdy *et al.* (1998). Central in all of these chronicles are the three "core" behaviors that all ADD/ADHD sufferers exhibit: Inattention, Impulsivity, and Hyperactivity. Flick's discussion of these three characteristics (as well as an additional ten to be mentioned later) is particularly useful because it includes anecdotal examples of the different ways in which parents and teachers might respond to students exhibiting each or all of these behavior patterns.

Inattention is considered the most basic and prevalent of the core characteristics. Students lack the ability to maintain focused attention on one topic or activity throughout both class sessions and the school day. However, this inability to "focus" results not from the ADD/ADHD student's lack of desire to "pay attention." The ADD/ADHD student lacks the ability to focus on one thing because he/she is too busy focusing on

everything—whether it is important for the lesson or not. Secondly, students with ADD/ADHD display the general lack of self-control that the DSM-IV calls impulsivity. ADD/ADHD students do not plan to be disruptive or out of control; however, too often their actions reflect their inability to "think before they act." As a result, they act inappropriately and cause their teachers and their parents to scratch their heads in dismay and consternation. Finally, the ADHD student in particular displays the additional trait of hyperactivity along with the other two characteristics already mentioned. Easily bored and craving stimulation, hyperactive children are anxious to move quickly from event to event or task to task without adequately completing the job they are performing. They appear jittery or constantly "on the go," causing consistent classroom performance and balanced peer relationships to be difficult (Flick, 1998).

In addition to the "core" characteristics outlined in the DSM-IV, Flick provides ten more "additional" characteristics that ADD/ADHD students may or may not exhibit. Disorganization may appear either in physical appearance or in the way the student keeps his or her assignments together—or both. As a result, students further complicate their ability to complete assignments because they are too disorganized to remember what they are supposed to do in the first place. They are sensitive to their differences and have experienced their share of academic or social failure due to them. So, many ADD/ADHD students act out in defense of their sensitivities, resulting in one of the following manifestations: poor peer/sibling relations and/or sensation-seeking behaviors that likely are the results of either aggressive behavior or a poor self-concept/self-esteem. In addition, ADD/ADHD students are more prone to daydream, suffer more frequent

memory problems, think obsessively, and are inconsistent in both behavior and academic performance. Finally, ADD/ADHD students may be poorly coordinated, particularly when it comes to fine motor tasks like handwriting. It is often this last characteristic that is the first tangible indicator for teachers and parents alike that some assessment may be necessary and that the student may need immediate attention (Flick, 1998).

Statement of the Problem

Literature dealing with ADD/ADHD is filled with articles on the "ideal" situation in which to educate and treat the younger sufferers of these complex learning differences. However, review of that literature to date reveals far fewer empirical studies focused solely on adolescents with these problems, and no studies—empirical or otherwise—are available on pedagogical approaches that independent school teachers are using to accommodate high-school-age students. Stigmatized when they are younger, adolescent sufferers of ADD/ADHD are apt to conceal their difficulties from teachers and counselors they do not know upon entering the ninth grade (Markel & Greenbaum, 1996). These tendencies to mask their difficulties may be compounded in the independent school setting if these youngsters see themselves as truly alone among a community filled with what they perceive are "over-achievers." In addition, independent school teachers may have only one or two ADD/ADHD students in any given class, making accommodation of those students seem even more demanding when considering the complexion of the class as a whole. Perhaps some teachers in the independent high school community are using extremely successful techniques with their ADD/ADHD students, and their efforts simply are not being reported in the literature.

When consideration is given to the increasing numbers of adolescents who are being diagnosed with any form of these challenging disorders, the best possible ways to approach and reach these students in the mainstream, independent school classroom must also be addressed. With these observations in mind, are independent high school teachers responding to the special needs of their ADD/ADHD students? Are these teachers even able to respond with the most advanced and timely methods available? Do the individual curricula and/or classroom activities of these teachers reflect the intensified demands that adolescents with ADD/ADHD require? Finally, are independent high school teachers included in the treatment teams that seek to design and implement successful instructional programs for ADD/ADHD adolescents? This study was designed to answer these questions.

Purpose of the Study and Research Questions

The purposes of the study were: to determine whether independent high schools have a system of responding to the needs of ADD/ADHD students that includes treatment teams to assess and oversee the programs planned for ADD/ADHD students, to determine whether teachers are included in these treatment teams, and to determine how independent high school teachers are responding to the pedagogical needs of ADD/ADHD students in their classes. The research questions investigated in the study were:

(1) Are independent high school teachers regularly teaching at least one student diagnosed with ADD/ADHD in their classes?

(2) Are adolescents with ADD/ADHD present in independent high schools? If so, with what per-class frequencies are they present?

(3) Are independent high school teachers aware of whether or not their schools have some form of treatment team set up for assessing and monitoring ADD/ADHD students' progress? (If so, who staffs these teams?)

(4) Of the teachers who are aware of their schools employing a team approach, what percent included teachers on the teams?

(5) To what extent do independent high school teachers consider and take into account (when designing class goals and objectives) the needs of students in their classes who are diagnosed with ADD/ADHD?

(6) To what extent do independent high school teachers consider and take into account (when designing class activities and/or presentations of class material) the needs of students in their classes who are diagnosed with ADD/ADHD?

(7) What percent of independent high school teachers have received specialized training that equips them to deal with those students in their classes diagnosed with ADD/ADHD? Of those receiving training, what percentage received it at or through an independent school?

(8) Are independent high school teachers experiencing success with the students in their classes diagnosed with ADD/ADHD? If so, are they able to describe this success?

A secondary purpose was to investigate whether the presence or absence of treatment teams had an impact on the success and/or failure of students with ADD/ADHD. A final purpose was to investigate whether the presence or absence of treatment teams had an impact on the inclusion of ADD/ADHD-specific activities and/or approaches within the individual curricula of responding teachers.

Benefits of the Study

Pamphlets and recruitment videos produced by independent schools tout individualized curricula and instruction, and graduates' high standardized test scores often support claims of students who are better educated and better prepared for college than their public school counterparts. However, what boasts can be made for these same independent high schools when it comes to ADD/ADHD students who enter their halls? In such competitive and fast-paced environments, what becomes of students who might be too distracted to engage in competition or who have been conditioned by previous failures to perceive themselves as slower than their peers? In short, are private, independent high schools responding to the needs of their ADD/ADHD students? There are presentations in the literature that detail what teachers of students with ADD/ADHD should be doing to accommodate these students in the average classroom (e.g., Dowdy, Patton, Smith, & Polloway, 1998; Flick, 1998; Lewis & Doorlang, 1991; Markel & Greenbaum, 1996). However, fewer resources have offered empirical data to substantiate whether, in fact, recommendations are actually being implemented by average teachers in average classrooms. The educational experiences of ADD/ADHD students in independent high schools have received scant attention in professional literature. Simply

put, at the heart of the educational process are two people: a student and a teacher. The current study seeks to discover how aware teachers are of their students with ADD/ADHD and what these same teachers know about how their schools are dealing with the increasing demands made by students with ADD/ADHD.

This study could provide an initial step toward improving how personnel at private, independent high schools respond to the segment of their populations that suffer from and deal with ADD/ADHD. If private, independent school students, who are the primary ambassadors for their schools in the community, can become better educated and better able to serve their community, then their institutions will be better served as well. If private, independent school teachers, who are the primary facilitators of curriculum and instruction in their school settings, can become better informed and better equipped to serve every member of their classes, then their institutions will be better served as well. Finally, if private, independent schools, which seem to enjoy good reputations in the educational community, can competently serve another part of that community, then that institution will be better served as well. It is the aim of this study to be a first step in ascertaining whether these institutions are, in fact, serving the ADD/ADHD segment of their communities in a productive and proactive manner.

Definitions of Terms

The following terms and concepts are defined specifically for use within the context of this study.

ADD/ADHD: The official and most recent terminology used by the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-IV) combines ADD (Attention Deficit

Disorder) and ADHD (Attention Deficit-Hyperactivity Disorder) under one heading—see Appendix A. However, since ADD has been (and still is) in the common vernacular, for the purposes of this study it was used in conjunction with ADHD rather than subsuming it under this latter term.

Adolescent: Students in grades 7-12 or students typically aged 13-18.

Assessment: The process by which behaviors and challenges unique to individual students diagnosed with ADD/ADHD are brought to light. This process should include not only the student but also the parents, teachers, counselors, physician, and any others who may have daily dealings with the student and/or knowledge and understanding of ADD/ADHD.

Evaluation: The process through which a student with ADD/ADHD is followed (or, tracked) along his/her planned program of study. Primary evaluators should be teachers; secondary evaluators are counselors, parents, and the physician in charge of intervention.

Hyperactivity: One of the three core components of ADD/ADHD, hyperactivity is characterized by intense physical restlessness over which the sufferer seems to exhibit little or no conscious control.

Inattention: One of the three core components of ADD/ADHD, inattention is considered the most basic and most prevalent of the three core components. Inattention is characterized by the inability to maintain focused attention on one topic or activity over the course of a regular class period.

Independent High School: Privately funded and maintained institutions of grades 7-12 lacking any special education focus as a part of their mission statements. These schools may have a day or boarding population, or both.

Impulsivity: One of the three core components of ADD/ADHD, impulsivity is characterized by inappropriate actions resulting from a general lack of self-control.

Treatment Team: An approach in the continuing evaluation of students with ADD/ADHD that takes those individuals involved or connected to the students' daily progress and forms a cooperative group out of them. Teams are often composed of a combination of the following interested parties: students, parents, teachers, counselors, school psychologists, and physicians.

Assumptions

(1) Teachers gave accurate and truthful responses to questions posed regarding their experiences with students diagnosed with ADD/ADHD;

(2) Teachers' responses to questions regarding their experiences with students diagnosed with ADD/ADHD are accurate measures of the programming geared toward ADD/ADHD students in independent high schools;

(3) Specific pedagogical activities can be identified and evaluated in terms of theoretical effectiveness in addressing the special needs of students diagnosed with ADD/ADHD;

(4) Some teachers may have no desire to make accommodations or adjustments for their students with ADD/ADHD.

Organization of the Study

This study is organized in the following manner:

Chapter one is an introduction that consists of history and background, statement of the problem, statement of purpose, research questions, and benefits of the study. The first chapter also includes definitions of terms applicable to the study and research assumptions.

Chapter two presents a review of related literature on ADD/ADHD and pedagogical approaches to ADD/ADHD. It covers current knowledge about ADD/ADHD, the special needs of those students diagnosed with ADD/ADHD, and particular studies that present new information regarding ADD/ADHD instruction in the high school classroom. In addition, pedagogical approaches that have proven successful in the past are also presented.

Chapter three describes the design of the study itself. Sections include (1) Orienting Questions and Subjects, (2) Instrumentation, (3) Phone Interviews, (4) Limitations and Delimitations, and (5) Methods of Data Collection.

Chapter four presents the findings of the study and answers the research questions. It is divided into sections that deal with data related to the following issues: (1) the Survey Sample, (2) Non-Respondents, and (3) Research Questions. The third part of Chapter four also refers the reader to qualitative responses (obtained from the survey questionnaire) that appear in Appendices at the end of this study. Finally, the chapter concludes with a discussion of the study's findings.

Chapter five presents a brief summary of the study, discusses conclusions drawn from the study, and puts forth recommendations based on these conclusions. The chapter is divided into sections that correspond with these purposes.

Chapter Two

Review of the Related Literature

Increasing numbers of counselors and ADD/ADHD experts advocate closer scrutiny of the way students experiencing ADD/ADHD obtain and process information with an eye toward learning and retention. Norris and Hoffman (1996) argue that the more self-made mechanisms a child can come up with for dealing with his or her environment, the better able that child will be to pick out of lessons what is important and what is not. The ADD/ADHD child, according to their study, is either not able to come up with these mechanisms or is not able to come up with them as quickly as others in his or her class. As a result, the inattention, impulsivity, and hyperactivity that characterize these students surfaces because they do not possess the abilities to process and apply badly needed behavioral scripts. Without these scripts telling them how and when to act, learn, or pay attention, ADD/ADHD students have trouble being productive members of their classroom environments. Norris and Hoffman (1996) argue that approaches designed to eliminate the core behaviors or to place them under the control of the child have been largely unsuccessful. However, those approaches that seek to consider the core behaviors and their characteristics as symptoms of a larger and more difficult matrix of problems are more eagerly advocated. Such a "symptom-based" approach would lead counselors and, presumably, teachers to be able to ascertain with more certainty those things that enhance and those things that inhibit learning in the ADD/ADHD student.

The core characteristics of ADD/ADHD act in concert with home, school, and peer environments, giving rise very early on in the careers of these students to specific

and troubling academic difficulties. Maag and Reid (1996) describe three formidable stumbling blocks that these students must hurdle whether they are equipped or not. First of all, they mention the "cognitive distortion" that cripples the ADD/ADHD student's thinking patterns. While this student may know how to act in certain situations, this cognitive distortion limits his or her ability to identify correctly the situations in the first place, resulting in the sort of unintentional and often misunderstood "acting out" that is characteristic of the ADD/ADHD student. Secondly and most specifically tied to environmental impediments, these learners show poor problem-solving and organization skills. For example, assume that a classroom teacher is giving an oral assignment or an oral problem to a class with ADD/ADHD students. We know (according to the core characteristics) that these students are more than likely paying attention to everything else in the classroom except the teacher's voice, so they are highly unlikely to attend to the assignment/problem. As a result, any organizational or problem-solving strategies that they may have obtained are of limited value because the students are simply unable to apply them as needed. Finally, and perhaps most importantly, ADD/ADHD sufferers battle with a lack of self-control than impedes not only their learning but also their abilities to relate with parents, teachers, and peers alike. Indeed, self-control demands that the individual possess both the "cognitive abilities to generate and evaluate response alternatives and behavioral skills to inhibit inappropriate responses and exhibit desired responses" (Maag & Reid, 1994, p. 16). It is this "double deficiency" of cognitive skills and behavioral recognition that plagues ADD/ADHD sufferers and makes program

planning, intervention options, and program implementation (inside the classroom and out) so difficult to construct and put into place.

Interventions and Programs

Researchers and teachers alike are aware of the effects of attention problems on learning. It is well-known and documented that such problems: (a) seriously interfere with attention-demanding cognitive processing, (b) inhibit the ability of the affected student to sustain alertness, stay flexible, and withhold inappropriate responses, and (c) impede the student's ability to search for relevant details, plan and sequence tasks, remember vital strategies, or use information to self-correct (Markel & Greenbaum, 1996). In the past, drugs like Ritalin have been used with varying degrees of success to assist learning disabled students with ADD/ADHD. Recent literature (Dowdy, Patton, Smith, & Polloway, 1998; Flick, 1998; Markel & Greenbaum, 1996), however, suggests that engaging in serious pedagogical dialogue, especially with adolescent students, might prove a viable alternative (or, at the very least a practical supplement) to drug therapy. In other words, lecture approaches—whether in the classroom or in the intervention plan—may prove unsuccessful with students experiencing ADD/ADHD. Teachers and counselors alike might see benefits by including these students in the construction of their own intervention and instructional plans.

Both parents and teachers will benefit from the knowledge that all most of the medications indicated for use with students who have ADD/ADHD can do is control the symptoms that make learning so difficult for them. Medication does nothing, for instance, to replace or reconstruct the flawed internal scripts that mislead ADD/ADHD

students into acting out or acting inappropriately (Norris & Hoffman, 1996). Since medication can control behavior, though, parents, teachers, and students alike can take advantage of this "window of opportunity" by implementing the sorts of programs that will take advantage of an increased attention span and an increased ability and willingness to learn. Norris and Hoffman argue, "if children with ADHD are to become more capable of directing and controlling their own attention, then intervention must help them to develop the internal structures necessary to guide attention and learning" (p. 60). No doubt this is the reason that several well-researched teacher resource guides now on the market (Dowdy, Patton, Smith, & Polloway, 1998; Flick, 1998; Maag & Reid, 1994; Maag & Reid, 1996; Markel & Greenbaum, 1996) have concluded that more functional approaches toward assessing and treating the behaviors associated with ADD/ADHD need to be considered in conjunction with pharmacotherapy. Furthermore, while they are competent behavior reducers, medications are often poor behavior teachers, creating instead reliance by parents and teachers on the drugs to produce well-behaved children and students. With the advent of new pedagogy and new behavioral therapy, it is now possible "to move beyond a strict adherence to the medical model toward a model that acknowledges the role of individual-specific and ecological determinants . . . adopting a medical perspective for children who exhibit ADHD runs the risk of focusing exclusively on medical treatment" (Maag & Reid, 1994, p. 19).

Instead of an exclusive reliance on medication, medical practitioners and educators alike now advocate programs that can combine the best of the medical, behavioral, and cognitive worlds to make intervention "a continuous cycle of finding a

level of task complexity that is sufficiently easy for the child to process . . . while continuously providing the support for learning at that appropriate level" (Norris & Hoffman, 1996, p. 61). Such approaches almost always begin with a comprehensive assessment of the environment in which the ADD/ADHD student lives and works. An analysis and evaluation of environmental factors is perhaps most vital for the success of any program designed to counteract the effects of ADD/ADHD (Atkins & Pelham, 1992; Braswell & Bloomquist, 1991; Hinshaw, 1992; Maag & Reid, 1994). As mentioned above, the complexity of the environment and the degree to which that complexity contributes to the learning difficulties endured by an ADD/ADHD student must be clearly accounted for in order to design a comprehensive and successful program of intervention inside the classroom and out (Maag & Reid, 1994; Markel & Greenbaum, 1996). Additionally, assessments that evaluate the makeup of classrooms and give special attention to teachers' styles and attitudes toward innovative teaching techniques and approaches is also necessary (Hinshaw, 1992). Along with this sort of holistic evaluation of ADD/ADHD students' lives, program planning includes an intensive examination of the classroom itself, taking into account particularly classroom behavior by the ADD/ADHD student, the nature of certain tasks and assignments, and the types of activities in which students find themselves engaged (Greenwood & Carta, 1987).

Once the environment has been assessed with the help of parents and teachers, program planning can begin. The earlier in the career of the ADD/ADHD student that these plans can be implemented the better (Atkins & Pelham, 1992; Burcham, Carlson, & Milich, 1993; Markel & Greenbaum, 1996). Such early plans often encourage the

planners to follow this sort of process: first, put into place a team approach to assessment and intervention; next, provide active roles for all constituencies (parents, teachers, and students); third, make the plans individualized for student strengths and weaknesses; and, finally, scrupulously monitor and modify the plan as the needs arise for both (Maag & Reid, 1996; Markel & Greenbaum, 1996). Timing is the key, for when plans start too late in the lives of ADD/ADHD students, they run the risk of becoming acquainted with academic and other failures early in their school careers. This resultant, negative mind-set will be cultivated through many years of frustration—an emotional problem with which adolescents especially must deal.

In an attempt to counteract these feelings of frustration, experts agree (Flick, 1998; Markel & Greenbaum, 1996) that teachers are likely to possess the most crucial knowledge of what ADD/ADHD students need in the classroom setting. However, this information from pedagogical theory does not always find its way into the all-important arena of instructional practice. Where there is a tendency to rely on one counselor or one psychologist to construct, implement, and monitor plans for every ADD/ADHD student at a particular school there exists a likelihood that those students' plans will be weak. Therefore, perhaps the most shortsighted mistake to make in designing an instructional program for an adolescent with ADD/ADHD is to exclude the classroom teacher from planning, implementation, or both. Leaving out such a prominent player from the intervention equation has stalled many treatment programs and has frustrated many students and parents struggling with ADD/ADHD.

The most functional ways to help the ADD/ADHD student in the classroom include an understanding that there is no hope to cure these learning differences in the traditional, medical sense of the word (Maag & Reid, 1994). Rather, there is only hope to control the symptomatic behaviors associated with ADD/ADHD that will then make behavioral approaches in the classroom much more effective (Maag & Reid, 1994). In addition, educators and counselors must attempt over time to target cognitive factors that are really the cause of learning difficulties (Maag & Reid, 1996). Part and parcel to this addressing of behavior change is equipping ADD/ADHD students with the ability to internalize any behavior modification so that they will not only behave better but will also learn how to behave better over the long haul. Students who display comorbid academic and behavior problems require the sort of intervention that combines the best of behavioral approaches with the best of pedagogical approaches (Hinshaw, 1992).

Over the years, several different sorts of behavioral interactions have been attempted on ADD/ADHD students—all with varying degrees of success. Hinshaw (1992) summarizes three of these. Direct contingency management requires systematic reward and response cost procedures in the classroom. Clinical behavior therapy teaches behavioral programming procedures to key adults in the environment—i.e., parents and teachers. Cognitive-behavioral approaches attempt to teach problem-solving and meditational strategies directly to the ADD/ADHD students. All three of these methodologies have met with mixed results over the past two decades. However, this particular study argues that "while direct contingency management yields powerful effects on disruptive behavior . . . they are costly and their results don't always generalize

outside of the classroom . . . the use of 'prudent' negative consequences has been successful with ADHD students" (Hinshaw, 1992, p. 897).

To be sure, the approaches teachers and parents decide are best must be appropriate and specific for the particular student's "social" needs and symptoms. By the term "social," researchers mean all those factors that play a role in the ADD/ADHD student's struggles and frustrations. Hinshaw (1992) argues that merely reducing problem behavior is not a sufficient intervention for these students with overlapping achievement and behavior problems—which is exactly what ADHD students display—because such a reduction will not promote the academic vitality that is crucial for ADD/ADHD students to feel socially secure and successful. With this in mind, Maag and Reid (1996) outline the process by which educators and parents should go about choosing intervention targets and techniques. They argue first of all that intervention targets should be socially significant for the ADD/ADHD student. In other words, if the student does not believe in the value of the target of the intervention, then that intervention should either be scrapped or modified. Next, the intervention procedures need to be socially appropriate. Just because a student does not always display a particular behavior should not mean he or she does not possess the ability to show that behavior. Finally, effects of intervention should be socially important. That is, program planners need to ask themselves if the accomplishment of their plan will "predict important current or future outcomes" for the student in question (Maag & Reid, 1996, p. 52). Maag and Reid go on to point out:

> . . . targets can range from specific behavioral skills (e.g., raise hand to get question answered), or cognitive skills (e.g., say "stop!" to myself when I think the teacher will make fun of my question), or problem solving skills (e.g., find someone to answer my question if the teacher is busy) to metacognitive skills (e.g., keep track of the number of times I need help). (pp. 52-53)

In addition to this plan, Dowdy *et al.* (1998) provide a useful process for identification and intervention that progresses step-by-step from preliminary assessment to follow-up and progress review.

Once behavior targets have been assessed and measured, goals for intervention and interventions themselves need to be set. In order to achieve the promotion of appropriate behavior and academic success in the classroom, teamwork is vital (Maag & Reid, 1996; Markel & Greenbaum, 1996). Schools and teachers need to be at the center of any plan because, quite simply, youngsters spend large amounts of time at school and because schools are the primary organizations in touch will all of the important intervention constituencies—i.e., the child him/herself, parents, teachers, and counselors (Burcham, Carlson, & Milich, 1993). Treatment teams meet regularly to evaluate student progress and to share information so that team members are aware of their responsibilities and contributions within the overall program and are not working at cross- or conflicting purposes (Maag & Reid, 1996).

When teams have been established and team leaders have been identified (usually the school counselor is the most logical choice for this role), a "functional" intervention

can be implemented. "Adopting a functional perspective means focusing on observed performance deficits or excesses, analyzing the nature of these problems, and matching intervention techniques to the information acquired" within the education milieu (Maag & Reid, 1994, p.19). Programs are rigorous and long-term, starting very early in the school career of the ADD/ADHD student. Goals of behavior management and future classroom success are clearly laid out at the beginning of such a program with the realization that important goals will not (and cannot) be accomplished in even the first years of the intervention. These interventions incorporate, as mentioned above, the best aspects of a multitude of different intervention approaches. Such multimodality is acknowledged as the most wide-ranging method for treatment of ADD/ADHD students (Satterfield, *et al.* 1979, 1980, 1981, and 1987). Finally (and above all) intervention models are individualized, targeting those behaviors that most interfere with each child's social and academic performance. Once a program is implemented, assessment of it is regular in order to create a wide enough base of knowledge from which to assess and evaluate the entire intervention process (Maag & Reid, 1996).

Whatever the plan, at the heart of its implementation and assessment must be the classroom teacher. Atkins and Pelham (1991) make a strong case for viewing teachers as the primary source for information on students with ADD/ADHD:

- Teachers spend a significant amount of time with students.
- Teachers observe students across a variety of academic and social tasks.
- Teachers are relatively objective as compared to parents.

- Teachers have opportunities to observe age-, sex-, and grade-appropriate behavior in a large peer group.
- Teachers base their recommendations on numerous observations of the student in various natural environments.
- Teachers are able to differentiate between students with and without symptoms of ADD/ADHD.

In short, schools will be agents of change in the coming age of planning and implementing successful interventions for ADD/ADHD students, and teachers are at the heart of this change. Interventions that are designed specifically for the individual students will be ongoing in order to evaluate the effectiveness of the intervention and in order to determine when and what types of modifications may be necessary. In the end, schools will spearhead the creation of systematic management plans and teams that will provide an integrated and coordinated intervention regimen (Maag & Reid, 1996). It seems an obvious and logical conclusion that at the center of this management plan will be the classroom teacher(s).

Recent Approaches

For educators, the acceptability and pragmatism of any intervention proposed for ADD/ADHD is likely to be judged from the educational perspective. In other words, teachers need to look at ADD/ADHD plans in terms of whether or not they have practical applicability for classroom intervention. Teachers need to know how they can manipulate the environment in which they teach and in which ADD/ADHD students learn. Strategies are necessary to help these students gain, maintain, and focus their

attention while at the same time empowering them to sustain that focus through varying tasks with varying demands and degrees of difficulty.

Flick (1998) discusses four particular areas of a teacher's perceptions of or approach to the ADD/ADHD student that prove central to that student's ultimate success or failure in and out of the classroom environment. He considers a teacher's knowledge of and sympathy to the unique demands and frustrations central to the academic life of the ADD/ADHD student crucial to understanding and manipulating that student's learning environment. In addition, he notes that teacher flexibility is key to promoting future success for the ADHD student—particularly when considering the teacher's willingness to understand the demands on attention span and work ethic within the classroom setting. Third, a teacher's sensitivity to self-esteem and confidence issues is sure to play a vital role in how the ADD/ADHD student approaches both classroom assignments and activities. Flick argues that most important, however, is the teacher's style—or how that teacher organizes and presents information from day to day in the classroom itself. Instruction through lessons and assignments that is too fast will give ADD/ADHD students trouble. Flick makes additional comments on poor teacher organization, preparation, and presentation of lessons as well as teacher unwillingness to incorporate quiet students into class activities. All of these, according to Flick's study, combined with an authoritarian approach in the classroom itself will foster a negative school experience for these students.

Teachers in classrooms populated by students diagnosed with ADD/ADHD would benefit from familiarizing themselves with the sorts of accommodations discussed by

Maag and Reid (1996) and Lewis (1991). These accommodations (discussed in Table 2-1) range from the very simple (modification of classroom arrangement) to the more complex (altering curriculum in classes). In his more exhaustive study, Flick (1998) expands upon these concepts—particularly those dealing with the physical environment of the classroom, advocating preferential seating near the teacher, restricted/isolated work areas (e.g., carrels), seating arrangements such as clusters or circles, lighting changes, and headphones with music for the ADD/ADHD students.

Norris and Hoffman (1996) have summarized one of the most interesting new methods of approaching the ADD/ADHD student in the classroom. Called the "S-D-S Model" (short for "Situation-Discourse-Semantics"), this approach considers both the ADD/ADHD students as well as the environment in which they find themselves. S-D-S, according to Norris and Hoffman:

. . . identifies factors interacting between child and environment that either facilitate or inhibit learning--factors are described along the S-D-S continuum: Situation in which learning occurs, degree of organization required by the Discourse, and the meaning or Semantic aspects of the activity. (p. 62)

Looking first at the Situational Context, we discover that it is what provides a means to describe how language is being used to refer to information. Norris and Hoffman are convinced that everything the ADD/ADHD child does is in direct response to the instructions of some internal script that tells the child what to do and when to do it. If these scripts are flawed or incomplete, the child will either act incorrectly or not act at all—particularly when called upon to do so in the classroom setting. The more "ego

Table 2-1.
Educational Accommodations for Children with ADD/ADHD

Accommodation Type	Examples
1. Modify classroom arrangement	• Decrease environmental distractions • Highly structured daily routine • Organizational aids • Peer tutor and/or peer behavior managers
2. Materials	• High feedback self-correcting materials • Introduce novelty • Advance organizers • Interspersed short lessons • Instructional prompts and cues
3. Instructional	• Structure activities to allow excess energy to be channeled • Maintain a positive, up-beat, non-threatening approach • Teach organization and independent learning skills • Arrange for an "emergency" signal
4. Alter criteria or task requirements	• Adjust task or lesson lengths to match with attention span • Eliminate recopying • Shorten homework assignments
5. Altered curriculum	• Focus on prerequisite skills • Focus on social skills curriculum

(Maag and Reid, 1996, p. 39)

centered" the language and experiences informing these scripts, the easier it is for the ADD/ADHD student to understand the information that he or she is receiving. As a result, when the information from the environment is too difficult for the child to make sense of, all of his or her ADHD symptoms will be heightened, resulting in (a) his or her disengagement from the class and (b) (more importantly) his or her inability to learn at that moment. A reduction of the level of this situational complexity will give ADD/ADHD students, according to Norris and Hoffman, greater opportunities to be self-directed learners, which some studies have shown to be most beneficial (Graesser & Person, 1994; Palinscar & Brown, 1987).

The Discourse Context—or, the source of the internal scripts that the ADD/ADHD child must use to pattern and produce behavior—has a direct impact on how the child reacts to events produced by particular situations. Norris and Hoffman argue that the internal scripts vital to producing the sort of behaviors that will facilitate learning are often lacking in ADD/ADHD students. The fewer the scripts students have in their repertoire and the lower the level of these scripts, the less able those students will be to sustain their attention for a long period of time. In other words, if ADD/ADHD students cannot tell themselves to sit still and pay attention because of a lack of these behavioral scripts, then these students will not sit still or pay attention. Finally, according to Norris and Hoffman, ADD/ADHD students lack an ability to focus their attention on language—or, the Semantic Context. When the level of language is even slightly above that of the ADD/ADHD student, he or she will be virtually lost in a sea of unknown words, phrases, and instructions. When teachers' semantic levels are too distanced from

students', ADHD symptoms persist or increase—staying within the students' "semantic range of expertise" is critical for learning to occur.

Perhaps the most compelling new approaches for teachers to consider are those that can address the needs of the situational, discursive, and semantic environments together in order to produce student-centered and student-directed classrooms. Modeling—particularly of instructions and problem-solving strategies—is valuable for the ADD/ADHD student. (Eccles & Midgley, 1989; Kauffman, Pullen, & Akers, 1986). Repetition and review of instructions with the student can counteract the tendency to impulsively start an assignment without being certain of the instructions in the first place. Similarly, this same sort of "self-talk" (focused more specifically on solving problems) will prompt the ADD/ADHD student to ask questions to him or herself about what needs to be done and in what order it needs to be done (Flick, 1998). Braswell and Bloomquist (1991) outline a five-step problem-solving strategy that would fit in well with just the sort of "self-talk" that Flick advocates. Students ask themselves this series of questions: (a) Stop! What is the problem? (b) What are some plans? (c) What is the best plan? (d) Do the plan. (e) Did the plan work? Finally, cooperative learning is another excellent way to involve a wide variety of multi-level students in the processes of instruction. However, cooperative learning presents a multitude of challenges for teachers and students alike—particularly when it comes to tasks and groupings. The teacher must plan carefully and rigorously while students (particularly those with ADD/ADHD) need to be taught how to cooperate productively (Markel & Greenbaum, 1998).

Conclusions

In the last decade, parents and teachers alike are benefiting from an increase in studies that propose practical, pedagogical approaches to students who struggle with ADD/ADHD. Instead of merely hoping that drugs alone would bring meaningful educational change, parents and teachers are able to take more control over both the behavior and instruction of their students by means of strategies and suggestions outlined in these recent studies. Indeed, behavioral techniques continue to play a prominent role as the logical companions to drug therapy—with some favorable results. Today we see great strides being made in the area of specific classroom approaches for students with ADD/ADHD. In fact, there are several recent book-length treatments (among them Dowdy, Patton, Smith, & Polloway, 1998; Flick, 1998; Markel & Greenbaum, 1996—cited here) that have addressed just these sorts of issues and that have been aimed squarely at a teaching audience.

However, there is still a great deal to be done—especially in terms of adolescents who suffer with the academic frustrations of these learning differences. Adolescence is the time when change comes almost too rapidly, and risk-taking becomes the norm whether we like to admit it or not (Dowdy, Patton, Smith, & Polloway, 1998). To be sure, adolescents enthusiastically embrace independence, autonomy, and self-determination just as they are going through crucial social and emotional transitions. In addition, information from teachers and schools may be becoming more difficult to understand, making assignments and classwork more demanding and complex—especially for students with ADD/ADHD. Meeting all of these challenges can

overwhelm any adolescent, but they may prove particularly daunting for students with ADD/ADHD who may have known the frustration of school failure from an early age.

Pedagogical approaches specific to meeting the needs of adolescents with ADD/ADHD appear less regularly in literature than do those for younger students. Similarly, approaches that center on the development and use of instructional plans that will address ADD/ADHD adolescents in the classroom are also less prominent. What we need to assess is the effectiveness of specific pedagogical/instructional designs that work for ADD/ADHD students who want to be active (and appropriate) class participants. What sorts of instructional theories and designs have been tried on groups of these teens, and which of these have worked or not worked and why? It would also be appropriate to test these sorts of approaches in the absence of drugs or in conjunction with any behavioral or cognitive modification. Again, these steps have all been taken for much younger students, but we have not seen the genesis of this for adolescents on the same scale. Finally, what are high school teachers doing to accommodate ADD/ADHD students in their classes? It seems, in the final analysis, that it may be the high school teachers of today to whom Barkley (1990) was referring when he remarked that when children with these learning differences succeed one time we hold that success against them for the rest of their lives.

Method of Data Collection

For the purposes of the current study, the following questions (also stated at the conclusion of Chapter One above) were answered by means of a survey instrument

administered to randomly selected teachers at independent high schools (see Appendix B):

(1) Are independent high school teachers regularly teaching at least one student diagnosed with ADD/ADHD in their classes?

(2) Are adolescents with ADD/ADHD present in independent high schools? If so, with what per-class frequencies are they present?

(3) Are independent high school teachers aware of whether or not their schools have some form of treatment team set up for assessing and monitoring ADD/ADHD students' progress? (If so, who staffs these teams?)

(4) Of the teachers who are aware of their schools employing a team approach, what percent included teachers on the teams?

(5) To what extent do independent high school teachers consider and take into account (when designing class curricula) the needs of students in their classes who are diagnosed with ADD/ADHD?

(6) To what extent do independent high school teachers consider and take into account (when designing class activities and/or presentations of class material) the needs of students in their classes who are diagnosed with ADD/ADHD?

(7) What percent of independent high school teachers have received specialized training that equips them to deal with those students in their classes diagnosed with ADD/ADHD? Of those receiving training, what percentage received it at or through an independent school?

(8) Are independent high school teachers experiencing success with the students in their classes diagnosed with ADD/ADHD? If so, are they able to describe this success?

The usefulness and applicability of survey/questionnaire research is well-documented (Alreck & Settle, 1995; Babbie, 1990; Berdie, Anderson, & Niebuhr, 1986; Rea & Parker, 1992). This specific type of descriptive research was chosen for the current study because the descriptive survey has proven to be a very reliable instrument for measuring the desired characteristics of one particular sample at one particular moment in time. Indeed, Leedy (1997) argues that "all knowledge is not gained by means of studying past records. We learn by observing the events taking place in the world around us" (p. 189). However, observation alone will not meet the demands of a comprehensive research study such as the one proposed. In point of fact, studies of survey research techniques instruct the researcher to observe with close scrutiny certainly, but they also compel the researcher to make a careful record of those observations in order to ensure validity and provide reliability (Leedy, 1997; Alreck & Settle, 1995).

Chapter Three

Methodology

This chapter presents the methods and procedures used in the collection and treatment of the data for the investigation discussed in this study. The methods and procedures for this study are described under the following headings: Orienting Questions and Subjects, Instrumentation, Phone Interviews, Limitations and Delimitations, and Methods of Data Collection.

Orienting Questions and Subjects

The study outlined in these pages is a descriptive one in which data are presented in order to paint a broad picture of the current status of pedagogy for adolescents with ADD/ADHD in private, independent high schools. Put simply, descriptive studies such as this one seek to determine and report the way things are in regards to specific hypotheses and questions. In this descriptive study, the researcher determined the following items:

(1) Whether teachers at independent high schools have a system of responding to the needs of ADD/ADHD students that includes treatment teams to assess and oversee the programs planned for ADD/ADHD students.

(2) Whether teachers are included in these treatment teams.

(3) How teachers at independent high schools are responding to the pedagogical needs of ADD/ADHD students in their classes.

The subjects for this study were classroom teachers at independent high schools across the nation. For this study the researcher tapped the existing, on-line database of

the National Association of Independent Schools (NAIS) Website. A keyword search of that database using the search-engine provided by the website delineated 434 schools in the United States that met the criteria of this study: (1) that schools selected would include grades 7-12 and (2) that schools selected would not have a specific mission of serving students with learning differences. There were three reasons for setting up these criteria: (1) this study was focused on adolescents because fewer published studies on this topic deal specifically with this age group; (2) adolescents were defined in this study as those students between the ages of 13-18—usually in grades 7-12; (3) this study was not focused on schools with a specifically-stated goal of assisting students with ADD/ADHD because so few of these sorts of "special schools" exist that they are serving far fewer students diagnosed with these learning differences than are mainstream, independent, private high schools.

The sample size obtained from this population numbered 100, following the general guidelines for sampling in descriptive research as laid out in Gay (1996). The method of sampling schools was random sampling because it is considered the single-best way of obtaining a representative group for a study such as this one. Each of the 434 private, independent schools was assigned a number corresponding with its alphabetical "rank" in the list obtained from the website. (That is, the first school listed alphabetically was given the number "1" and so on.) Then, using a table of random numbers, 100 schools were selected. Once the sample of schools was determined, teachers were then selected by the heads of each school as discussed below in the **Methods** section of this chapter.

Instrumentation

The characteristics of an effective survey/questionnaire are described in survey research texts (e.g., Leedy, 1997; Berdie, Anderson, & Niebuhr, 1986)—which also cover the efficacy of survey techniques as a means of gathering data. Leedy (1997) specifically explains these characteristics by outlining the basic structure of descriptive surveys. First of all, descriptive studies must by their nature rely on observation as the prime form of gathering data. Descriptive surveys have long been used as one of the means of ascertaining such data. However, it would have been impractical (if not impossible) in this research project to observe personally teachers in private, independent schools across the nation. Therefore, a descriptive survey proved to be a valuable instrument by which teachers could be their own observers, describing for the researcher the situations that existed in their classes. Therefore, the questions in the survey were designed with the teacher-observer in mind. Secondly, descriptive surveys are typically aimed at a deliberately selected, specifically defined, and clearly delimited population in order to obtain their desired information. For this study, the first step toward identifying an appropriate population consisted of determining the criteria of the schools to be considered. Once criteria were established, schools with those criteria were randomly selected to be participants in the study. Criteria and random selection methods used in this study are outlined above in the section of this chapter entitled "Orienting Questions and Subjects." Finally, even though the onus of data gathering rests on the shoulders of the observer filling out the descriptive survey, those observations must still be systematically organized and presented in order to promote valid and accurate

conclusions. The survey instrument used a combination of five types of questions that were clustered around the following seven categories:

(1) Levels of teacher interest and knowledge regarding the pedagogical needs of student diagnosed with ADD/ADHD in mainstream classes;

(2) Incidence of students diagnosed with ADD/ADHD in responding teachers' classes;

(3) Whether or not a "team approach" (see Definitions section of Chapter Two above) is employed by responding institutions when dealing with students diagnosed with ADD/ADHD;

(4) Whether or not teachers of students diagnosed with ADD/ADHD are included in the "team approach" on a regular basis;

(5) Whether or not teachers of students diagnosed with ADD/ADHD consider the specific pedagogical needs of these students when constructing and presenting lesson plans;

(6) The nature of modifications made (if any) to teachers' physical classrooms, behavioral methods, or pedagogical approaches when teaching their classes that contain students diagnosed with ADD/ADHD;

(7) Specific and personal narratives from teachers themselves detailing particularly successful strategies and resources they have used in the classroom.

A potentially damaging aspect of the descriptive survey that researchers must also address is that it can be particularly susceptible to the introduction of observer bias and/or

observer effect. Observer bias occurs when inaccurate observations result from poor data gathering methods, and observer effect takes place when those being observed act differently simply because they are being observed. Every attempt should be made to counteract these factors and to safeguard the data gathered. In the study discussed here, survey questions were designed to seek information from teachers that would describe events occurring every day in their classes. In other words, the sorts of questions in this study's survey questionnaire asked teachers to record what happened in their classes on any given day. Therefore, teachers could simply record what they were doing every day in their classes without the pressure or awkwardness of an unknown person marking their "every move"—thus limiting the potential for observer effect. Additionally, teachers would not be saddled with complex and unwieldy recording protocols—thus limiting the potential for observer bias. To be sure, in any study involving a survey instrument, the existence of observer bias cannot be completely ruled out.

Leedy (1997) describes a two-step method of subject-reported observation followed by recording on the part of the researcher to which any study employing a survey questionnaire must adhere. In the research setting of this study, the instrument of observation was a twenty-four-item survey questionnaire (Appendix B) designed by the researcher to obtain information from teachers. The creation of the questionnaire followed guidelines outlined in research texts (e.g., Alreck & Settle, 1995; Berdie & Niebuhr, 1986; and Leedy, 1997), and these guidelines appear at length in Table 3-1.

Table 3-1.
Guidelines for Designing a Survey Questionnaire

- Keep the questionnaire as short as possible
- Make the questionnaire attractive to the participant by means of colorful paper and/or ink.
- Organize the items on the questionnaire in such a way that they are easily read and completed.
- Use page and item numbers throughout the questionnaire.
- Be sure to include the name and address of the person to whom the questionnaire should be sent back even if including a self-addressed, stamped envelope. This precaution makes a response more likely should the respondent misplace or lose the enclosed envelope.
- Instructions should be brief and clear and should appear prominently at the beginnings of sections on the questionnaire.
- The organization and grouping of questions on the questionnaire should be logical to the respondent. Items related in content should appear together.
- Begin with questions that are easy to answer and provide little threat to the respondent.
- State each item on the questionnaire in as brief a way as possible.
- Avoid technical or complex terms. When the use of such terms is inevitable, be sure to define whatever term may prove problematic.
- Avoid stating items in a negative fashion. Respondents may misread these items.
- Avoid questions that ask for two answers in the same question. Follow the simple rule: one question—one answer.
- Avoid giving the respondent the impression that there is a response that you as the researcher want. In other words, avoid leading questions that are prone to bias. Let the respondents come to their own conclusions by asking fair and open questions.
- Be polite and courteous whenever requesting something from a respondent.
- Make everything associated with the survey as simple and direct as possible.
- Consider first impressions—if you turn off your potential respondent from the outset, you'll never have another chance to solicit his/her input.
- Check and double-check for consistency throughout the survey questionnaire, the letters, and the instructions. Once these items hit the mail, there's no calling them back.
- Send return postage—whatever makes it easier on the respondent should be done in order to ensure the maximum response rate.
- Offer to send back the results of the study to those who respond—make respondents feel like they really are a part of something that is important and well-organized.

Table 3-1 is presented in order to provide a foundation upon which to discuss the survey instrument and is adapted from information in Berdie & Niebuhr (1986) and Leedy (1997). In addition to consulting the aforementioned texts, the primary researcher for this study also had the survey questionnaire scrutinized throughout its creation by faculty members of the University of Tennessee Department of Education. In addition to the concerns reflected by Table 3-1, the primary researcher designing a survey questionnaire for any descriptive study must also consider such theoretical items as: (1) the makeup of the survey population, (2) the basic assumptions underlying the reasons for each survey question, (3) the relationship of survey questions to research questions, and (4) the relationship between the survey questions and the overall research effort.

When designing the survey questionnaire for this study, the primary researcher attempted to follow the guidelines in Table 3-1 closely. For example, a first draft of the survey questionnaire was almost twice as long as its final form became. Careful editing and re-formatting brought the instrument down to a manageable 4-page length. Similarly, light blue paper was used to try to make the appearance of the survey questionnaire as attractive as possible. Headings throughout the instrument were bold-faced and underlined in order to make items easy to read and to follow, and individual questions were numbered and referred to by number throughout. The primary researcher's name and address were prominently placed in bold-faced lettering at the end of the survey questionnaire. General instructions for completion of the survey questionnaire were boxed and placed at the beginning of the instrument, and any other instructions for filling out sections of the questionnaire were placed at the beginning of

each section. Questions were grouped according to category, so similar questions appeared together. Also, "easier" questions about the make-up of teachers' schools were asked first in order to offset any feelings of threat or discomfort. When unfamiliar terms were used in the questionnaire (e.g., "team approach"), a clear definition was provided in the text of the question employing the unfamiliar term. In sum, every attempt was made to assure that the survey questionnaire was simple, direct, and "user friendly."

Prior to sending out the survey questionnaire, it was "field tested" with teachers at The Baylor School in Chattanooga, Tennessee—a co-educational, day-boarding, private, independent high school similar to the schools selected in the sample described above. This field test represented a small-scale, preliminary study conducted as a means of exploring the reliability and validity of the survey questionnaire. Teachers participating in the field test were encouraged to offer comments and criticisms of the survey questionnaire's appearance, directions, format, and content. Once teachers at The Baylor School completed the survey, the primary researcher conducted interviews with them in which the following adjustments to the survey questionnaire were made: (1) the initial directions on the survey were rewritten to be more clearly stated, (2) a substantial error on the grid on the third page of the survey was corrected, and (3) suggestions about the color of the paper to be used in the final mailing were considered. In addition, Dr. Judith Boser, the Computer Systems Specialist at the University of Tennessee at Knoxville's Institute of Assessment and Evaluation, Dr. Dan Quarles, the Director of the UTC/UTK Graduate Center in Chattanooga, and Dr. Susan M. Benner, Program Coordinator for the Inclusive Early Childhood Education Program at the University of Tennessee, reviewed

the survey questionnaire and further clarified the format, appearance, and directions. Finally, the analysis of the data obtained from survey questionnaire (see Chapter Four below) was focused by and organized around the research questions that form the backbone of this study. This sort of organizational practice is recommended by research texts (e.g., Alreck & Settle, 1995; Berdie & Niebuhr, 1986; and Leedy, 1997).

In sum, the input both from experts at the University of Tennessee Education Department and representative teachers from The Baylor School provided valuable data concerning shortcomings of the survey questionnaire as well as practical suggestions for its improvement. As a result of listening to, organizing, and implementing this input, the primary researcher for this study was able to construct a more valid and reliable instrument for gathering data. The proof of validity and reliability lies in the answers obtained from the instrument itself. When the actual surveys began to return after the field tests were completed, it was clear that the problems associated with the first drafts of the survey questionnaire had been solved. Answers on the final drafts of the questionnaires were consistent with those of the last groups at The Baylor School who field-tested the instrument.

Phone Interviews

Berdie, Anderson, and Niebuhr (1986) also encourage researchers engaged in descriptive studies dependent upon the use of survey questionnaires to increase their response rates by means of follow-up telephone interviews with non-respondents. Such interviews should attempt to approximate the research setting as closely as possible. In the case of the study discussed here, once the initial return was established at 53

respondents, the primary researcher conducted telephone interviews with a random sample of faculty from 10 schools that had not responded to either of the first two requests to participate. In these interviews the representatives from the schools were asked to respond to the same survey questionnaire sent to them in the mail so that interview information would not differ substantially from information sought via mailing. The primary researcher followed guidelines for conducting interviews outlined in two research texts: Gall, Borg, and Gall (1996) and Leedy (1997). These guidelines are reproduced in Table 3-2.

Table 3-2.
Guidelines for Conducting a Research Interview

- The most important first step is to assure the respondent of absolute confidentiality. If necessary, review with the respondent the specific safeguards in place to assure confidentiality in the study.
- Try to avoid leaping into the questionnaire immediately upon beginning the conversation.
- Be sure to detail the benefits of the study for the respondent.
- Once a certain rapport with the respondent has been established, begin with the questions on the survey questionnaire, saving more difficult or controversial questions for the end.
- Let the respondent respond. In other words, the interviewer should not say more over the course of the interview than the person being interviewed.
- Be sure that the questions being asked only require one response; avoid "double-barreled" questions.
- Whenever possible, use "simple probes" that will allow the respondent to expound upon a given answer. (For example, "What else might you be able to tell me about that?")
- Pay close attention to the tone of the respondent's voice as well as his or her willingness/hesitancy to answer certain questions. If you can tell that a respondent is uncomfortable with a given question, move on to another and try to return to the controversial question later using different language.
- Remember that you are not arguing with the respondent; you are simply seeking to gain information from him/her. Therefore, avoid verbal confrontations with the respondent.
- Be very careful with your tone of voice, being conscious of giving verbal hints or clues for desired responses.
- Stick to the survey questionnaire and avoid leading questions whenever possible.

Limitations and Delimitations of the Study

(1) Due to the number of teachers coupled with the number of independent private schools in the United States, this study was limited only to a sample of teachers from these institutions—a census was not plausible.

(2) Using a table of random numbers along with the NAIS website listing 434 member schools nationwide that meet the criteria of the study, the researcher randomly selected participating schools.

(3) Because of the descriptive nature of the questions asked on the survey questionnaire, descriptive statistics such as frequency and mean were used. In other words, this study sought to answer the question "what is it" (a descriptive question) rather than the question "how likely is it" (an inferential question).

(4) The sample of schools eligible to participate in the study was delimited to those independent private institutions inclusive of grades 7-12.

(5) Teachers participating in the study were delimited to those faculty members chosen by principals or headmasters based on their experience in teaching students diagnosed with ADD/ADHD.

(6) Only those teachers considered the "best" at working with students diagnosed with ADD/ADHD at given schools were asked to participate by principals and headmasters.

Methods of Data Collection and Analysis

Headmasters or principals of the institutions in the sample were sent a personalized letter of inquiry (Appendix C) asking them to identify the **teaching** faculty

member at their institutions who is most experienced in teaching students diagnosed with ADD/ADHD. The headmaster/principal was asked to distribute another cover letter (Appendix D) along with the survey instrument to the individual teacher chosen. It was hoped that this two-stage method would improve the response rate of the survey instrument. Another letter was mailed after three weeks' time to those headmasters/principals who did not respond to the initial request (Appendix E). This second inquiry included the survey instrument and a second request to participate. Each survey also included a unique code number to assist in follow-up procedures. As described above, descriptive statistics such as mean and frequency were used in this study.

Additional interesting data were also obtained through the survey questionnaire in the form of teachers' responses to qualitative questions. The scope of the study did not permit the sort of in-depth analysis of these responses that they should certainly receive. However, they are included in the discussion of data in Chapter Four below when they provide useful information on specific research questions and are organized according to these same research questions. Furthermore, they are reproduced in their entirety as appendices at the end of the study for consideration as a body of data gathered by the survey questionnaire.

Chapter Four

Findings and Presentation of Data

The purpose of this chapter is to present the findings of the study and to answer the research questions. This chapter is divided into sections that deal with data related to the following issues: (1) the Survey Sample, (2) Non-Respondents, and (3) Research Questions. The third part of this chapter includes brief descriptions and reviews of the qualitative responses (obtained from the survey questionnaire). Full responses to qualitative survey questions appear in Appendices at the end of this study. Finally, the chapter concludes with a discussion of the study's findings.

Survey Sample

The subjects for this study were classroom teachers at independent high schools across the nation. The researcher tapped the existing, on-line database of the National Association of Independent Schools—NAIS. A keyword search of that database delineated 434 schools in the United States that met the criteria of this study. The sample size obtained from this population numbered 100, following the general guidelines for sampling in descriptive research (Gay, 1996). The method of sampling schools was a simple random sample. Heads of each school then selected teachers as discussed below.

Headmasters or principals of the institutions in the sample were sent a personalized letter of inquiry (Appendix C) asking them to identify the **teaching** faculty member at their institutions who was most experienced in teaching students diagnosed with ADD/ADHD. The headmasters/principals were then asked to distribute another cover letter (Appendix D) along with the survey instrument to the individual teacher

chosen. A second letter was mailed to those headmasters/principals who did not respond to the initial request within three weeks (Appendix E). This inquiry included the survey instrument and a second request to participate. Each survey included a unique code number to assist in follow-up procedures.

The sample, therefore, consisted of 100 teaching faculty members from independent schools across the nation. Of the sample surveyed, 53 representatives from the schools contacted (53%) responded to the survey. Of these 53 respondents, 6 (11%) indicated that their school did not regularly admit students with ADD/ADHD and, as a result, deemed themselves poor candidates for the study. What follows are two typical responses from heads of schools who felt they did not have the proper student population to complete the survey in full:

- **From the Head of an All-Girls' School**: "Forgive me for not responding to your initial request. I'm sorry that I am unable to field this to a teacher—our student population, as a rule, does not include students diagnosed with ADD/ADHD. If a student has been diagnosed as such (in rare circumstances), our faculty is generally not informed unless it becomes an observable issue. This is such a rare occurrence that I could not even recommend a faculty member to complete this for you. I'm sorry."
- **From the Head of an All-Boys' School**: "The typical classroom teacher here teaches no specifically diagnosed ADD/ADHD students. Those who do, may have one student in the four sections they teach. We coordinate our academic and other guidance of boys with special medical conditions or special learning needs through

our guidance personnel. At the Upper School that is the Dean of Students . . . there is no 'team' approach to the ADD syndrome here, although we assemble the teachers of any student experiencing academic troubles to collaborate on responses."

In sum, 47 teachers completed the survey questionnaire and mailed it back while 6 schools mailed back a statement (like those above) that their schools either never or rarely admitted students with ADD/ADHD.

Non-Respondents

In an effort to gain as high a response rate as possible, as recommended by Berdie, Anderson, and Niebuhr (1986), the primary researcher conducted a telephone survey of a random sample of an additional 10 schools that had not responded. Of these 10 schools, 6 responded to the survey questionnaire over the phone (see Chapter Three, "Phone Interviews" above) while the remaining 4 were unwilling to participate. The responses obtained from these additional 6 non-respondents yielded no significant difference from responses obtained in the original mailings. All six respondents answered that ADD/ADHD students were present in their schools and that they were doing "their best" to accommodate those students in their classes. The similarity of the phone responses to the mail responses indicated that the data obtained from the responding schools represent authentic and generalizable findings.

Research Questions

Research Question One:

Are independent high school teachers regularly teaching at least one student diagnosed with ADD/ADHD in their classes?

This first research question was answered specifically by the 1st item on the 23-item survey questionnaire and was the only question on the questionnaire to which all 53 respondents replied. As shown in Table 4-1, 31 (58%) of the teachers responding stated that students with ADD/ADHD were regularly (one or more students per class every semester) present in their classes, 16 (30%) of the teachers responded that students with ADD/ADHD were sometimes (one or two students in all classes every year) present in their classes, and 6 (11%) of the teachers replied that students with ADD/ADHD were never present in their classes.

Research Question Two:

If adolescents with ADD/ADHD are present in independent high schools, with what per-class frequency are they present?

The second research question of this study deals with students diagnosed with ADD/ADHD and the frequency with which these students appear in independent high school classes. The data obtained from the answers to questions 2 and 3 of the survey questionnaire are presented in Table 4-2. The 2nd question on the survey asked, "Typically, how many students diagnosed with ADD/ADHD do you teach in an average class?" As reflected in Table 4-2, of the 47 respondents to this question, 21 (45%) answered that they had only 1 student diagnosed with ADD/ADHD in a typical class, 18

Table 4-1.
Frequency of teaching students known to have been diagnosed with ADD/ADHD

Response	Frequency	%
Regularly	31	59
Sometimes	16	30
Never	6	11

Table 4-2.
Distribution of Students Diagnosed with ADD/ADHD in Independent School Classes

ADD/ADHD Students Per Class	Total Students Per Class and Overall Percentage											
	< 10		10-15		16-20		21-25		26-30		30+	
1	11	23%	6	13%	4	9%	0	NA	0	NA	0	NA
2	5	11%	8	17%	4	9%	0	NA	1	2%	0	NA
3	4	9%	0	NA	2	4%	1	2%	0	NA	0	NA
4	0	NA	0	NA	1	2%	0	NA	0	NA	0	NA
5	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA
6	0	NA	0	NA	0	NA	0	NA	0	NA	0	NA

(38%) answered that they had 2 students diagnosed with ADD/ADHD in a typical class, 7 (15%) answered that they had 3 students diagnosed with ADD/ADHD in a typical class, and 1 (2%) answered that he/she had 4 students diagnosed with ADD/ADHD in a typical class.

The 3rd question of the survey asked, "How many total students (those diagnosed with ADD/ADHD and otherwise) make up a typical class for you in your school?" Of the 47 respondents to the survey, 20 (43%) answered that there were fewer than 10 total students in a typical class, 14 (30%) answered that there were between 10-15 total students in a typical class, 11 (23%) answered that there were between 16-20 total students in a typical class, 1 (2%) answered that there were between 21-25 in a typical class, and 1 (2%) answered that there were between 26-30 in a typical class.

The data presented in Table 4-2 depict the combined answers to survey questions 2 and 3 with the accompanying percentages. Respondents' answers are grouped horizontally by the total number of students (both exhibiting and not exhibiting behavior consistent with ADD/ADHD) in a typical classroom and vertically by the number of students diagnosed with ADD/ADHD in such a typical classroom. Of the 20 teachers who answered that typical classes were populated by fewer than 10 students, 11 (23%) answered that such a class would have one student diagnosed with ADD/ADHD in it, 5 (11%) answered that such a class would have two students diagnosed with ADD/ADHD in it, and 4 (9%) answered that such a class would have three students diagnosed with ADD/ADHD in it. Of the 14 teachers who answered that typical classes were populated by 10-15 students, 6 (9%) answered that such a class would have one student diagnosed

with ADD/ADHD in it, and 8 (17%) answered that such a class would have two students diagnosed with ADD/ADHD in it. Of the 11 teachers who answered that classes were populated by 16-20 students, 4 (9%) replied that such a class would have one student diagnosed with ADD/ADHD, 4 (9%) replied that such a class would have two students diagnosed with ADD/ADHD, 2 (4%) replied that such a class would have three students diagnosed with ADD/ADHD, and 1 (2%) replied that such a class would have four students diagnosed with ADD/ADHD. One teacher (representing 2% of the survey population) from a school with classrooms populated by 21-25 students replied that there were usually three students diagnosed with ADD/ADHD in classes. And 1 teacher (representing 2% of the survey population) from a school with classrooms populated by 26-30 students replied that there were usually two students diagnosed with ADD/ADHD in classes.

Research Questions Three and Four:

(3) Are independent high school teachers aware of whether or not their schools have some form of treatment team set up for assessing and monitoring ADD/ADHD students' progress? (If so, who staffs these teams?)

(4) Of the teachers who are aware of their schools employing a team approach, what percent included teachers on the teams?

The third and fourth research questions of this study are very closely related, so they will be discussed together. These research questions were answered directly by items 4, 5, and 6 of the survey questionnaire. The 4th question stated, "Does your school employ a team approach when it deals with students diagnosed with ADD/ADHD?" and

instructed those who responded "yes" to identify the individuals who are usually included on these teams. (The term "team approach" was defined in the survey questionnaire as "a cooperative group—usually meeting once a month—composed of the students as well as the students' parents, teachers, counselors, school psychologists, and physicians" who are responsible for the "continuing assessment of students diagnosed with ADD/ADHD.") Table 4-3 reflects the answers to the first part of research question three while Table 4-4 displays the answers to the second part of research question three as well as the answer to research question four. The information in Table 4-3 shows that of the 47 responding teachers, 16 (34%) indicated that their schools did employ a team approach when dealing with students diagnosed with ADD/ADHD, 30 (64%) indicated that their schools did not employ a team approach, and 1 (2%) indicated that he/she did not know whether his/her school employed a team approach or not.

Table 4-3.
Presence or Absence of a Team Approach for ADD/ADHD Students

Response	Frequency	%
Teams present.	16	34
Teams not present.	30	64
Don't know.	1	2

Table 4-4.
Individuals Present on Teams for ADD/ADHD Students

Individual	Frequency	%
Students	8	50
Parents	9	56
Teachers	14	88
Administrators	13	81
Counselors	10	63
School Psychologists	6	38
Physicians	1	6
Learning Specialists	1	6
Student Advisers	2	13
Special Educator	1	6
It varies	5	31

Table 4-4 shows that of those 16 teachers who responded that their schools did employ a team approach for students diagnosed with ADD/ADHD, 8 (50%) included students on the teams, 9 (56%) included parents on the teams, 14 (88%) included teachers on the teams, 13 (81%) included administrators on the teams, 10 (63%) included counselors on the teams, 6 (38%) included school psychologists on the teams, 1 (6%) included physicians on the teams, and 5 (31%) stated that membership on the team "varied." (It should be noted that the survey questionnaire solicited additional responses from teachers by including an "other—please list" category. Among these responses were: learning specialists (1—6%), student advisers (2—13%), and special educator (1—6%).) Finally, respondents were urged to check all responses that applied, so the percentages of responses in Table 4-4 do not add up to 100.

Only those teachers who indicated that teams were used at their schools were then asked to answer two additional questions on the survey questionnaire. The first of these questions was the 5th question of the survey. This question asked, "As a teacher of students diagnosed with ADD/ADHD at a school employing a team approach, are you asked to participate on the team dealing with the particular students you teach?" Table 4-5 shows that of the 16 teachers responding that their schools did employ team approaches, 11 (69%) answered that they were <u>always</u> asked to participate in the teams, 4 (25%) answered that they were <u>sometimes</u> asked to participate in the teams, and 1 (6%) answered that they were <u>never</u> asked to participate in the teams.

Table 4-6 reflects the answers given for the 6th question on the survey questionnaire. This question asked <u>how often</u> those teachers of students diagnosed with

Table 4-5.
Frequency of Teacher Participation on Teams

Response	Frequency	%
Always	11	69
Sometimes	5	25
Never	2	6

Table 4-6.
Frequency of Teacher Participation in Follow-up Meetings

Response	Frequency	%
Always	11	69
Sometimes	4	25
Never	1	6

ADD/ADHD at schools employing a team approach were involved in follow-up assessment meetings with other members of the team. Eleven (69%) of the teachers responding to this question stated that they were always involved in follow-up meetings with the team, 4 (25%) were sometimes involved in follow-up meetings with the team, and 1 (6%) were never involved in follow-up meetings with the team.

Research Question Five:

To what extent do independent high school teachers consider (when planning class curricula) the needs of students in their classes who are diagnosed with ADD/ADHD?

The fifth research question of this study was addressed in the 7th, 16th, and 17th questions on the survey questionnaire. Question 7 asked, "When **planning** your class's

lessons, do you give consideration to the needs of those students in your class who are diagnosed with ADD/ADHD?" Of the 47 teachers responding to this question, 15 (32%) answered that they always give consideration to their ADD/ADHD-diagnosed students when planning class lessons, 27 (57%) answered that they sometimes give consideration to their ADD/ADHD-diagnosed students when planning class lessons, and 5 (11%) answered that they never give consideration to their ADD/ADHD-diagnosed students when planning class lessons. Table 4-7 reflects these responses. In addition to the quantitative data in Table 4-7, the survey asked teachers responding "yes" to this question to give qualitative examples of the types of consideration they provide for their ADD/ADHD-diagnosed students when planning their class's lessons. Table 4-8 shows the categories of responses teachers made and the frequency with which they made them.

Table 4-7.
Consideration of ADD/ADHD Students when Planning Class Lessons

Response	Frequency	%
Always	15	32
Sometimes	27	57
Never	5	11

Table 4-8.
Consideration Given ADD/ADHD Students when Planning Class Lessons

Category	Frequency
Provide students with more hands-on work—i.e., multi-sensory, life-applicable tasks	6
Provide Students with additional time	4
Consider student's individual learning styles—i.e., auditory, visual, and/or tactile	2
Repeat certain skills for student understanding	2
Include more kinesthetic activities for students	2
Provide students with individual instruction and follow-up	1
Re-focus students with verbal cues	1
Limit lecture to 15 minutes per class—a more manageable length for students	1
Modify length, modality, and methods of demonstrating	1
Connect each day's lesson with previous work	1
Provide students with breaks between tasks	1
Provide students with frequent activity switches	1
Provide students with testing accommodations	1
Provide students with note-taking assistance	1

Question 16 of the survey asked, "How often do you supply in advance written objectives for your students to use as they do their work in your class?" Of the 47 teachers responding to this question, 4 (9%) answered that they always supply written objectives in advance for students to use during class, 15 (32%) answered that they frequently supply written objectives in advance for students to use during class, 18 (38%) answered that they sometimes supply written objectives in advance for students to use during class, 8 (17%) answered that they rarely supply written objectives in advance for students to use during class, and 2 (4%) answered that they never supply written objectives in advance for students to use during class.

Question 17 of the survey asked, "How often do you supply, after an activity is completed, checklists for your students to use as they check the work they have done in your class?" Of the 47 teachers responding to this question, 1(2%) answered that he/she always supplies post-activity checklists for students, 10 (21%) answered that they frequently supply post-activity checklists for students, 13 (28%) answered that they sometimes supply post-activity checklists for students, 14 (30%) answered that they rarely supply post-activity checklists for students, and 9 (19%) answered that they never supply post-activity checklists for students. Table 4-9 below reflects these responses.

Table 4-9.
Frequency of Accommodations

Survey Item	A		F		S		R		N	
Provides in-advance, written objectives.	4	9%	15	32%	18	38%	8	17%	2	4%
Provides post-activity checklists	1	2%	10	21%	13	28%	14	30%	9	19%

Research Question Six:

To what extent do independent high school teachers consider (when presenting class activities and/or class material) the needs of students in their classes who are diagnosed with ADD/ADHD?

The sixth research question of this study was addressed in the 8th, 10th, 11th, 12th, 13th, 14th, 15th, and 18th questions on the survey questionnaire. Question 8 was a two-part question that will be dealt with separately while the remaining seven questions will be discussed together. Question 8 asked, "When **presenting** your class's lessons, do you give consideration to the specific needs of those students in your class who are diagnosed with ADD/ADHD?" Of the 47 teachers responding to this question, 16 (34%) answered that they always give consideration to their ADD/ADHD-diagnosed students when presenting class lessons, 28 (60%) answered that they sometimes give consideration to their ADD/ADHD-diagnosed students when presenting class lessons, and 3 (6%) answered that they never give consideration to their ADD/ADHD-diagnosed students when presenting class lessons. Table 4-10 below reflects these responses.

Table 4-10.
Consideration of ADD/ADHD Students when Presenting Class Lessons

Response	Frequency	%
Always	16	34
Sometimes	28	60
Never	3	6

In addition to the above quantitative data, the survey asked teachers responding in the affirmative to question 8 to give brief, qualitative examples of the types of consideration they would provide for their ADD/ADHD-diagnosed students when presenting their class's lessons. One teacher provided a particularly salient response that seems appropriate to reproduce here because of its relative uniqueness among other answers to be listed below in Table 4-11. It is unique because the teacher seems not to distinguish between students diagnosed with ADD/ADHD and others in his/her class.

> . . . The greatest adaptation made for these students and for all students is a focus on mastery of the material. I strive to have all of my students focus on their gradual gain of material, not on the time it takes or the number of attempts it takes. We work at one assignment per day and then test—taking whatever time is required for the test.

Table 4-11 categorizes the responses of the teachers as well as the frequency with which answers were provided.

Answers to questions 10-15 and 18 of the survey instrument will be presented in Table 4-12. In this table the left-hand column shows the main ideas of the survey questions while the right-hand column combines frequencies and percentages of these responses: Always (A), Frequently (F), Sometimes (S), Rarely (R), and Never (N).

Question 10 asked, "How often do you help your students diagnosed with ADD/ADHD organize themselves and their assignments more than you do the other students in your class?" Of the 47 teachers responding to this question, 6 (13%) answered

Table 4-11.
Consideration Given to ADD/ADHD Students when Presenting Lessons

Response	Frequency
Physical Considerations:	
Securing eye contact	2
Move around to be near students	1
Physical contact—i.e., shoulder taps	2
Time Considerations:	
More time on tests	1
Time out	1
Class Presentation Considerations:	
Make language clear and not wordy	1
Group work	2
Oral follow-up quizzes with white board	2
Non-judgmental re-direction	1
Use of overhead projector	2
Copy of teacher's notes	2
Provide checklists and specific instructions	2
Vary activities to break lengthy teaching	3
Homework Considerations:	
Individual assignments	2
Constant reminders of work that is due	1
Long-range syllabus with checkpoints	1

Table 4-12.
Extent of Consideration for ADD/ADHD Students Given in Planning Lessons

Survey Item	A		F		S		R		N	
More help for ADD/ADHD students with organization.	6	13%	19	40%	20	43%	2	4%	0	NA
Use of peer tutors with ADD/ADHD students.	0	NA	12	26%	21	45%	11	23%	3	6%
Use of peer behavior managers with ADD/ADHD students.	0	NA	6	13%	9	19%	13	28%	19	40%
Use of advance organizers in class presentations.	6	13%	9	19%	23	49%	9	19%	0	NA
Interspersing short lessons among longer lessons.	10	21%	21	45%	13	28%	3	6%	0	NA
Specific teaching of organization and independent learning skills.	10	21%	15	32%	13	38%	5	11%	4	9%
Use of cooperative learning strategies.	4	9%	21	45%	17	36%	5	11%	0	NA

that they always help ADD/ADHD-diagnosed students with organization more than other students, 19 (40%) answered that they frequently help ADD/ADHD-diagnosed students with organization more than other students, 20 (43%) answered that they sometimes help ADD/ADHD-diagnosed students with organization more than other students, 2 (4%) answered that they rarely help ADD/ADHD-diagnosed students with organization more than other students, and none of the responding teachers answered that they never help ADD/ADHD-diagnosed students with organization more than other students.

Question 11 asked, "How often do you use peer tutors (i.e., students who help 'teach' academic material in cooperative pairs) with your students diagnosed with ADD/ADHD?" Of the 47 teachers responding to this question, none answered that they always use peer tutors with ADD/ADHD-diagnosed students, 12 (26%) answered that they frequently use peer tutors with ADD/ADHD-diagnosed students, 21 (45%) answered that they sometimes use peer tutors with ADD/ADHD-diagnosed students, 11 (23%) answered that they rarely use peer tutors with ADD/ADHD-diagnosed students, and 3 (6%) answered that they never use peer tutors with ADD/ADHD-diagnosed students.

Question 12 asked, "How often do you use peer behavior managers (i.e., students who help to keep other students on task during an activity) with your students diagnosed with ADD/ADHD?" Of the 47 teachers responding to this question, none answered that they always use peer behavior managers with ADD/ADHD-diagnosed students, 6 (13%) answered that they frequently use peer behavior managers with ADD/ADHD-diagnosed students, 9 (19%) answered that they sometimes use peer behavior managers with ADD/ADHD-diagnosed students, 13 (28%) answered that they rarely use peer behavior

managers with ADD/ADHD-diagnosed students, and 19 (40%) answered that they never use peer behavior managers with ADD/ADHD-diagnosed students.

Question 13 asked, "How often do you use advance organizers (i.e., ready-made outline or note-taking handouts) in your class presentations?" Of the 47 teachers responding to this question, 6 (13%) answered that they always use advance organizers in class presentations, 9 (19%) answered that they frequently use advance organizers in class presentations, 23 (49%) answered that they sometimes use advance organizers in class presentations, 9 (19%) answered that they rarely use advance organizers in class presentations, and none of the responding teachers answered that they never use advance organizers in class presentations.

Question 14 asked, "How often do you intersperse short lessons among your longer class presentations?" Of the 47 teachers responding to this question, 10 (21%) answered that they always intersperse short lessons among longer class presentations, 21 (45%) answered that they frequently intersperse short lessons among longer class presentations, 13 (28%) answered that they sometimes intersperse short lessons among longer class presentations, 3 (6%) answered that they rarely intersperse short lessons among longer class presentations, and none of the responding teachers answered that they never intersperse short lessons among longer class presentations.

Question 15 asked, "Along with your regular subject matter, how often do you teach organization and independent learning skills?" Of the 47 teachers responding to this question, 10 (21%) answered that they always teach organization and independent learning skills, 15 (32%) answered that they frequently teach organization and

independent learning skills, 13 (28%) answered that they sometimes teach organization and independent learning skills, 5 (11%) answered that they rarely teach organization and independent learning skills, and 4 (9%) answered that they never teach organization and independent learning skills.

Question 18 asked, "How often do you employ cooperative learning strategies in you classes?" Of the 47 teachers responding to this question, 4 (9%) answered that they always employ cooperative learning strategies, 21 (45%) answered that they frequently employ cooperative learning strategies, 17 (36%) answered that they sometimes employ cooperative learning strategies, 5 (11%) answered that they rarely employ cooperative learning strategies, and none of the responding teachers answered that they never employ cooperative learning strategies.

Research Question Seven:

To what extent do independent high school teachers consider (when arranging their class seating) the needs of students in their classes who are diagnosed with ADD/ADHD?

The seventh research question of this study was addressed in the 9th question on the survey questionnaire: "When **arranging** your class's seating, do you modify the physical arrangement of your classroom in order to accommodate a student diagnosed with ADD/ADHD?" Of the 47 teachers responding to this question, 23 (49%) answered that they always modify the physical arrangement of their classes to accommodate ADD/ADHD-diagnosed students, 18 (38%) answered that they sometimes modify the physical arrangement of their classes to accommodate ADD/ADHD-diagnosed students,

and 6 (13%) answered that they never modify the physical arrangement of their classes to accommodate ADD/ADHD-diagnosed students. In addition the survey asked teachers responding in the affirmative to question 9 to give qualitative examples of the types of modifications they provide when arranging their class's seating for their ADD/ADHD students. Table 4-13 below shows the responses of the teachers as well as the frequency with which answers were provided.

Table 4-13.
Modifications to Classroom Arrangement to Accommodate ADD/ADHD Students

Response	Frequency
Have ADD/ADHD students sit in the front of the room in order to focus better.	11
Try not to place ADD/ADHD students around noisy/distracting objects or classmates.	7
Sit at a round table	1
Group work	1
U-shaped tables	1
Hands-on activities	1
Tone down visual stimuli	1
Constantly changing table arrangements	1

Research Question Eight:

What percent of independent high school teachers have received specialized training that equips them to deal with those students in their classes diagnosed with ADD/ADHD? Of those receiving training, what percentage received it at or through an independent school?

The eighth research question of this study was addressed by the 21st question on the survey questionnaire, which asked, "Did you participate—either at your current school or at another school—in an inservice training program on classroom approaches for dealing specifically with students diagnosed with ADD/ADHD?" Of the 47 respondents to this question, 17 (36%) answered that they had participated in such a program at their current school, 7 (16%) answered that they had participated in such a program at another independent school, 1 (2%) answered that he/she had participated in such a program at a public school, 2 (4%) answered that they had not participated in such a program even though their current school offered one, 17 (36%) answered that they had not participated in such a program and their current school did not offer one, and 3 (6%) answered that they had not participated in such a program and were unsure of whether their current school offered one or not. Table 4-14 shows the responses to this question. In addition to quantitative data, the survey asked teachers responding "yes" to this question to give brief, qualitative examples of the training they had received for dealing with their ADD/ADHD students. Table 4-15 shows responses of the teachers grouped together by type as well as the frequency with which answers were provided. Complete responses to this question are reproduced in their entirety in Appendix F.

Table 4-14.
Participation in ADD/ADHD Training Programs

Response	Frequency	%
Yes, at an independent school.	24	51
Yes, at a public school.	1	2
No, and training is offered at my school.	2	4
No, and training is not offered at my school.	17	36
No, and unsure about training at school.	3	6

Table 4-15.
Types of Training Received by Independent School Teachers

Response	Frequency
Tutorials and inservices provided by the current school	5
National learning disabilities conferences and workshops paid for by the school	5
Videos on learning disabilities provided by school	2

Research Question #9:

Are independent high school teachers experiencing success in their classes with those students who have been diagnosed with ADD/ADHD? If so, are they able to describe this success?

The ninth and final research question of this study was answered by question 19 of the survey questionnaire, which asked, "Can you recall a particular and personal success story dealing with a student diagnosed with ADD/ADHD?" Of the 46 respondents to this question (there was one non-response), 39 (85%) answered that they were able to recall a success story dealing with a student diagnosed with ADD/ADHD while 7 (15%) answered that they were not able to recall a success story dealing with a student diagnosed with ADD/ADHD. In addition to the above quantitative data, the survey asked teachers responding "yes" to this question to give brief, qualitative examples of the types of success they had experienced with their ADD/ADHD-diagnosed students. What follows are three examples of responses; all of the teachers' responses to this question appear in Appendix G.

- "I utilized a student's artistic ability to draw a scene depicting the atrocities of the Holocaust instead of completing handouts. I have found the use of technology very helpful with these particular students."
- "One of my students was having a great deal of difficulty with analyzing literature. Basically, he was not focusing on the material and missed key passages. In addition, he did not want anyone to guess he was ADHD. During advisor periods, where students and teachers have an opportunity to

work one-on-one, I used to tell him about my children—two of whom have ADHD. As he became more accepting of the fact that lots of people have ADHD, he confided to me that he had it and needed help with literature. He continues to seek me out for help in this area and now, three years later, he made the honor role [sic] for the first time. He has accepted that he must employ strategies and seek help and is not ashamed to do so, knowing that there are others like him with ADHD in the world."

- "The last student I dealt with made great progress personally and academically. She is now in college doing well."

Additional Comments by Responding Teachers

The final question on the survey questionnaire asked respondents to add anything they felt would be important for the primary researcher to consider. Six respondents answered this question, and the responses ranged from advice ("The kids need to feel they are capable of what everyone else can do.") to commiseration with ADD/ADHD-diagnosed students ("I am ADD myself and only was diagnosed four years ago. I wished I would have known in my school years so I could have made better adaptations in my school years."). The responses to this question along with a particularly interesting and detailed response from one non-respondent to the survey appear in Appendix H.

Findings of the Study

Teachers' knowledge and understanding of the pedagogical needs of adolescents with ADD/ADHD attending private, independent high schools are summarized in the following 15 findings.

- A total of 53 representatives from private, independent high schools responded to the survey. Among the respondents, 6 indicated that their school did not regularly admit students with ADD/ADHD and, as a result, did not complete the questionnaire.
- Eighty-nine percent of respondents to the survey indicated that they were currently teaching adolescent students diagnosed with ADD/ADHD.
- Eighty-one percent of respondents indicated that they were teaching either one or two students diagnosed with ADD/ADHD in each class in a typical academic year, and 85% indicated that a typical class numbered fewer than 21 students.
- Sixty-four percent of respondents (30 out of 43) indicated that team approaches for addressing the pedagogical needs of students diagnosed with ADD/ADHD (as defined by the survey instrument) were <u>not</u> present in the schools in which they teach.
- Of the remaining 16 teachers who responded that team approaches were present at their schools, 88% (14 teachers) indicated that classroom teachers were included as members of those teams; furthermore, 61% of the same group (10 teachers) indicated that teachers were "always" asked to participate on the teams and in follow-up meetings with the teams.
- Eighty-nine percent of respondents indicated that they gave prior consideration to their students diagnosed with ADD/ADHD when they were planning their class's lessons.

- Seventy-nine percent of respondents indicated that they were at least sometimes providing written objectives in advance to their students for use during class lessons, and 81% indicated that they were at least sometimes using advance organizers as a part of their presentation of class material.
- Fifty-one percent of respondents indicated that they were at least sometimes providing post-activity checklists for their students to use to check the work that they had done during a class period.
- Ninety-four percent of respondents indicated: (a) they were at least sometimes giving prior consideration to their students diagnosed with ADD/ADHD when presenting their class's lessons and (b) they were at least sometimes interspersing shorter lessons among longer class presentations.
- Ninety-six percent of respondents indicated that they were at least sometimes helping their students diagnosed with ADD/ADHD organize themselves more than they helped their other students with the same organizational skills, and 91% also stated that they were at least sometimes teaching organization and independent learning skills as a part of their usual class curriculum.
- Seventy-one percent of respondents indicated that they were at least sometimes employing peer tutors in order to aid in the instruction of their students diagnosed with ADD/ADHD, but 68% indicated that they rarely, if ever, employed peer behavior managers in order to aid in the on-task focus of these same students.
- Ninety percent of respondents indicated that they were at least sometimes using cooperative learning strategies as a component of their class presentations.

- Eighty-seven percent of respondents stated that they were at least sometimes employing some sort of classroom arrangement modification when attempting to accommodate their students diagnosed with ADD/ADHD.
- Fifty-four percent of respondents stated that they had received some form of training for dealing with students diagnosed with ADD/ADHD while 52% of these had received this training at a private, independent school.
- Eighty-five percent of respondents stated that they could recall a specific success story about a student who had been diagnosed with ADD/ADHD.

Chapter Five

Summary, Conclusions, and Recommendations

The purposes of this final chapter are to present a brief summary of the study, to discuss conclusions drawn from the study, and to put forth recommendations based on these conclusions. The chapter is divided into sections that correspond with these purposes.

Summary

The overriding purpose of this study was to determine the extent to which private, independent high school teachers are aware of and are addressing the specific needs of their adolescent students diagnosed with ADD/ADHD. Additionally, this study specifically sought to determine: (a) whether independent high schools have a system of responding to the needs of ADD/ADHD students that includes treatment teams to assess and oversee the programs planned for ADD/ADHD students, (b) whether teachers are included in these treatment teams, and (c) how independent high school teachers are responding to the pedagogical needs of ADD/ADHD students in their classes. The specific research questions investigated in the study are discussed on page 8 in Chapter One.

Two final, peripheral purposes of the study were to investigate whether the presence or absence of treatment teams had an impact on the perceived success and/or failure of students with ADD/ADHD as well as whether the presence or absence of treatment teams had an impact on the inclusion of ADD/ADHD-specific activities and/or approaches within the individual curricula of responding teachers.

Conclusions

Based upon the findings reported in the analysis of the data, seven conclusions were made regarding the presence of adolescent students diagnosed with ADD/ADHD in private, independent high schools and the knowledge and understanding of those adolescents by the teachers in these high schools.

(1) A majority of private, independent high schools are admitting adolescent students with characteristics of students who are diagnosed with ADD/ADHD.

These students often number only one or two in very small and very competitive classroom environments. Respondents stating that students diagnosed with ADD/ADHD are a "rare occurrence" at their schools still admit these adolescents as students and often do not make the teachers of these students aware of the special needs these students require as a part of their daily instruction.

(2) Teams composed of students, parents, classroom teachers, administrators, psychologists, and physicians put in place for addressing the pedagogical needs of students diagnosed with ADD/ADHD are not present in a majority of private, independent high schools.

Recent literature suggests that schools seeking success for their students diagnosed with ADD/ADHD will plan for this success by means of a team process (Maag & Reid, 1996; Markel & Greenbaum, 1996): first, schools will put into place a team approach toward assessment and intervention; next, they will provide active roles for all constituencies (parents, teachers, and students); third, they will make the plans

individualized for student strengths and weaknesses; and, finally, they will scrupulously monitor and modify the plan as the needs arise for both. The data from this study reveal that this sort of process is not in place in a majority (64% of respondents) of private, independent high schools. Literature suggests (Flick, 1998; Markel & Greenbaum, 1996) that the reliance on one counselor or one school psychologist to construct, implement, and monitor plans for every ADD/ADHD student at a particular school will weaken the plan designed for that student. We may assume upon consideration of the data from this study that in the absence of team approaches, private, independent high schools are relying too heavily on counselors and learning skills personnel to handle all of the needs of students diagnosed with ADD/ADHD in their schools. Finally, private, independent high schools—by virtue of the fact that team approaches are not present—may be excluding classroom teachers from taking an active role in being a real help to their students diagnosed with ADD/ADHD. Teachers may possess crucial knowledge of what ADD/ADHD students need. By leaving out these prominent factors, private, independent high schools are forecasting their own frustration as well as the frustration of their students diagnosed with ADD/ADHD.

(3) Teachers surveyed at private, independent high schools seem willing to apply the sorts of pedagogical approaches that research suggests are appropriate and effective for use with adolescents diagnosed with ADD/ADHD.

Classroom teachers may know best how to make the most of the environments in which they teach and in which ADD/ADHD students can learn. Specific and tested

strategies are necessary to help these students acquire, sustain, and channel their attention while at the same time give them the skills necessary to retain that focus through varying tasks with varying demands and degrees of difficulty. The data from this study are very revealing. In terms of the following strategies, some teachers at independent high schools seem personally acquainted with the benefits of these sorts of approaches for their ADD/ADHD-diagnosed students: (a) giving prior consideration when planning lessons, (b) the use of pre-activity written objectives, (c) the use of advance organizers, (d) giving consideration when presenting lessons, (e) the teaching of organizational and independent learning skills, (f) the use of peer tutors, and (g) employing cooperative learning strategies. The data from this study indicate that teachers in private, independent high schools display a willingness to address the specific pedagogical needs of their students diagnosed with ADD/ADHD.

(4) Teachers surveyed at private, independent high schools are recognizing and addressing the needs on the part of their ADD/ADHD-diagnosed students for extra help with organization and learning/study skills.

Perhaps as a function of the smaller classrooms that most private, independent high school teachers report, there is more time available for one-on-one "tutoring" of ADD/ADHD-diagnosed students in the areas of organization and learning/study skills. Teachers in these schools are addressing an important need in their students diagnosed with ADD/ADHD by giving them extra time and attention in the study skills and organizational skills areas.

(5) Training focused on students diagnosed with ADD/ADHD is available at private, independent high schools, but the degree to which independent schoolteachers are utilizing it is variable.

Specific pedagogical approaches designed to meet the needs of adolescents diagnosed with ADD/ADHD appear less regularly in literature than do those for younger students and are likely to appear less regularly during inservice workshops as well. Similarly, successful approaches centered on the development of instructional plans addressing ADD/ADHD-diagnosed adolescents in the classroom are also less prominent. Teachers need to be made aware of the sorts of instructional theories and designs that have been successful with groups of these teens (and only teens), and these same teachers need to know which of these have worked or not worked and why. To be sure, some of the teachers responding to this study stated that they had received a degree of training in the instruction of ADD/ADHD-diagnosed students at private, independent schools. However, based on the conclusions reached in number three above, this training needs to become more widespread. The descriptions of training in Table 4-18 as well as the qualitative responses in Appendix F show that some schools are on the right track. Experts, conferences, and videos are a good start, but schools need to realize that if follow-up visits are not scheduled, then little real retention on teachers' parts will likely take place.

(6) Independent school teachers are experiencing success with their students who are diagnosed with ADD/ADHD, but this success (according to

anecdotal evidence) shows little pattern or consistency across schools for others to try to replicate.

Responses reproduced in Appendices F and G reveal clear successes on the parts of independent school teachers. However, the causes of these successes range from the introduction of Ritalin—something beyond the teacher's pedagogical control and beyond the scope of this study—to the utilization of an individual student's artistic skills as a substitute for handouts. The common themes, though, throughout the responses in Appendices F and G demonstrate a clear interest on the parts of these teachers in the success of their students diagnosed with ADD/ADHD coupled with a desire to participate in that success. Some teachers, it seems, even discuss their willingness to change long-held, successful pedagogical methods in order to ensure more success on the parts of their students diagnosed with ADD/ADHD.

(7) Students diagnosed with ADD/ADHD in independent schools will find themselves in small (70% of respondents cited classes with 15 or fewer students—see Table 4-2 above) and competitive classes where teachers will likely be aware of (and be employing) specific pedagogical approaches designed to answer their instructional needs.

To be sure, responses to the survey from teachers reveal a "culture of care" among some independent school educators. Many surveyed told stories of their own willingness to spend extra time out of class with students diagnosed with ADD/ADHD. In fact, teachers in independent schools seem aware that the pedagogical approaches (mentioned in Chapter Two) that work for students diagnosed with ADD/ADHD are

approaches that also work for "normal" students. The task of acquainting additional independent school teachers with these methods seems a reasonable one for schools to undertake with more vigor than teachers say is happening today.

Recommendations for Further Research

To be sure, more focused and specific research needs to be done in the area of ADD/ADHD and adolescence—whether those adolescents find themselves in private, independent high schools or not. As far as considerations stemming from data obtained in this study, the following represent some salient recommendations:

(1) It is recommended that longitudinal and/or qualitative studies be conducted to investigate the development of pedagogical approaches to ADD/ADHD-diagnosed adolescents in private, independent high schools.

(2) It is recommended that in qualitative studies, teachers without particular training or interest in ADD/ADHD be sought out and interviewed to ascertain whether they, too, are experiencing the same sorts of success that the more seasoned teachers of this study seem to be experiencing.

(3) It is recommended that responses be sought from teachers in a wide variety of disciplines—e.g., the sciences as well as the humanities—and then that the analysis of these responses be done on a discipline-by-discipline basis.

(4) It is recommended that a qualitative study be done to discover the differences in how students diagnosed with ADD/ADHD are being served in schools with single-sex versus co-educational populations.

(5) It is recommended that a qualitative study be done to discover the perceptions of those teachers in independent schools who are also parents of students diagnosed with ADD/ADHD. Questions about the availability of training, teachers' attitudes toward ADD/ADHD students, and what exactly teachers know and are doing could be interestingly analyzed from the unique perspective of the teacher/parent.

(6) It is recommended that mission statements of independent schools advertising "attention for the individual" be compared with the real attention that students diagnosed with ADD/ADHD are receiving. It would be interesting to know if any incongruities exist between the idealism of the mission statements and the reality of practice.

(7) It is recommended that a qualitative study be undertaken to ascertain whether veteran teachers who claim success with ADD/ADHD students attribute that success to specific training they have received, or whether they attribute that success to their own insights as long-time classroom teachers.

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Appendices

Appendix A: American Psychiatric Association's Diagnostic and Statistics Manual (DSM-IV) criteria for Attention Deficit (ADHD), which are now broken into three distinct categories.

Attention-deficit/Hyperactivity Disorder

A. Either (1) or (2):

(1) **Inattention**: at least **6** of the following symptoms of inattention have persisted for at least 6 months to a degree that is maladaptive and inconsistent with developmental level:
- (a) Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities;
- (b) Often has difficulty sustaining attention in tasks or play activities;
- (c) Often does not seem to listen to what is being said to him/her;
- (d) Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (not due to oppositional behavior or failure to understand instructions);
- (e) Often has difficulties organizing tasks and activities;
- (f) Often avoids or strongly dislikes tasks (such as schoolwork or homework) that require sustained mental effort;
- (g) Often loses things necessary for tasks or activities (e.g., school assignments, pencils, books, tools, or toys);
- (h) Is often easily distracted by extraneous stimuli;
- (i) Often forgetful in daily activities.

(2) **Hyperactivity-Impulsivity**: at least **4** of the following symptoms of hyperactivity-impulsivity have persisted for at least **6** months to a degree that is maladaptive and inconsistent with developmental level:

Hyperactivity:
- (a) Often fidgets with hands or feet or squirms in seat;
- (b) Leaves seat in classroom or in other situations in which remaining seated is expected;
- (c) Often runs about or climbs excessively in situations where it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness);
- (d) Often has difficulty playing or engaging in leisure activities quietly.

Impulsivity:
- (e) Often blurts out answers to questions before the questions have been completed;
- (f) Often has difficulty waiting in lines or awaiting turn in games or group situations.

B. Onset no later than age 7

C. Symptoms must be present in 2 or more situations (e.g., at school, work, and at home)

D. The disturbance causes clinically significant distress or impairment in social, academic, or occupational functioning

E. Does not occur exclusively during the course of PDD, Schizophrenia or other Psychotic Disorder, and is not better accounted for by Mood, Anxiety, Dissociative, or Personality Disorder

Code based on type:

314.00 ADHD, Predominantly Inattentive Type: if criterion A(1) is met but not criterion A(2) for the past 6 months

314.01 ADHD, Predominantly Hyperactive-Impulsive Type: if criterion A(2) is met but not criterion A(1) for the past 6 months

314.01 ADHD, Combined Type: if both criteria A(1) and (2) are met for past 6 months

314.9 is ADHD NOS: for other disorders with prominent symptoms of attention-deficit or hyperactivity-impulsivity that do not meet criteria above

Appendix B: The Survey Instrument

Code Number _____

Pedagogy and ADD/ADHD—Survey Questionnaire

Please answer the following questions as accurately as possible. The code number on the questionnaire will be used for follow-up purposes only and will be removed once data have been collected. **(Please return this questionnaire in the enclosed, self-addressed, stamped envelope by April 30, 1999.)**

Demographic Information

(1) How often do you teach students whom you know have been diagnosed with ADD/ADHD?

- ❑ Regularly (one or more students per class every semester)
- ❑ Sometimes (one or two students in all classes every year)
- ❑ Never

If you have checked **Never**, you may stop filling out this questionnaire and mail it back in the envelope provided. **(Thank you for your participation.)**

(2) Typically, how many students diagnosed with ADD/ADHD do you teach in an average class?

- ❑ **1**
- ❑ **2**
- ❑ **3**
- ❑ **4**
- ❑ **5**
- ❑ **6+**

(3) How many total students (those diagnosed with ADD/ADHD and otherwise) make up a typical class for you in your school?

- ❑ **Fewer than 10**
- ❑ **10-15**
- ❑ **16-20**
- ❑ **21-25**
- ❑ **26-30**
- ❑ **30+**

(4) Does your school employ a **team approach** when it deals with students diagnosed with ADD/ADHD? (The term **team approach** can be defined as the continuing assessment of students diagnosed with ADD/ADHD by a cooperative group—usually meeting once a month—composed of the student as well as the students' parents, teachers, counselors, school psychologists, and physicians. Often, school administrators are included in teams as well.)

- ❑ **Yes**
- ❑ **No** (Please proceed to question number (7) below.)
- ❑ **Don't Know** (Please proceed to question number (7) below.)

If "yes," who staffs the team at your school? (Check all that apply.)

- ❑ Students
- ❑ Parents
- ❑ Teachers
- ❑ Counselors
- ❑ School Psychologists
- ❑ Physicians
- ❑ Administrators
- ❑ Other (Please list)
- ❑ It varies

(5) As a teacher of students diagnosed with ADD/ADHD at a school employing a team approach, are you asked to participate on the team dealing with the particular students you teach?

- ❑ **Yes,** I am always asked to participate on such teams in my school.
- ❑ **Yes,** I am sometimes asked to participate on such teams in my school.
- ❑ **No,** I am never asked to participate on such teams in my school.

(6) As a teacher of students diagnosed with ADD/ADHD at a school employing a team approach, are you involved in periodic follow-up assessment meetings with the members of the team?

- ❑ **Yes,** I am always involved in follow-up assessment meetings with team members.
- ❑ **Yes,** I am sometimes involved in follow-up assessment meetings with team members.
- ❑ **No,** I am never involved in follow-up assessment meetings with team members.

Instructional Approaches

(7) When **planning** your class's lessons, do you give consideration to the needs of those students in your class who are diagnosed with ADD/ADHD?

- ❑ **Yes,** I always give consideration to ADD/ADHD students when I am planning lessons.
- ❑ **Yes,** I sometimes give consideration to ADD/ADHD students when I am planning lessons.
- ❑ **No,** I never give consideration to ADD/ADHD students when I am planning lessons.

If "yes" provide brief examples:

(8) When **presenting** your class's lessons, do you give consideration to the specific needs of those students in your class who are diagnosed with ADD/ADHD?

- ❑ **Yes,** I always give consideration to ADD/ADHD students when I am presenting lessons.
- ❑ **Yes,** I sometimes give consideration to ADD/ADHD students when I am presenting lessons.
- ❑ **No,** I never give consideration to ADD/ADHD students when I am presenting lessons.

If "yes" provide brief examples:

(9) When **arranging** your class's seating, do you modify the physical arrangement of your classroom in order to accommodate a student diagnosed with ADD/ADHD?

- ❑ **Yes,** I always give consideration to ADD/ADHD students when I arrange my classroom.

❑ **Yes,** I sometimes give consideration to ADD/ADHD students when I arrange my classroom.

❑ **No,** I never give consideration to ADD/ADHD students when I arrange my classroom.

If "yes" provide brief examples:

For questions 10-18 use the following key for your responses: **A = Always, F = Frequently, S = Sometimes, R = Rarely, and N = Never.**

	A	F	S	R	N
(10) How often do you help your students diagnosed with ADD/ADHD organize themselves and their assignments more than you do the other students in your class?	❑	❑	❑	❑	❑
(11) How often do you use peer tutors (i.e., students who help to "teach" academic material in cooperative pairs) with you students diagnosed with ADD/ADHD?	❑	❑	❑	❑	❑
(12) How often do you use peer behavior managers (i.e., students who help to keep other students on task during an activity) with your students diagnosed with ADD/ADHD?	❑	❑	❑	❑	❑
(13) How often do you use advance organizers (i.e., ready-made outline or note-taking handouts) in your class presentations?	❑	❑	❑	❑	❑
(14) How often do you intersperse short lessons among your longer class presentations?	❑	❑	❑	❑	❑
(15) Along with your regular subject matter, how often do you teach organization and independent learning skills?	❑	❑	❑	❑	❑
(16) How often do you supply in advance written objectives for your students to use as they do their work in your class?	❑	❑	❑	❑	❑
(17) How often do you supply after an activity is completed checklists for your students to use as they check the work they have done in your class?	❑	❑	❑	❑	❑
(18) How often do you employ cooperative learning strategies in your classes?	❑	❑	❑	❑	❑

(19) Can you recall a particular and personal success story dealing with a student diagnosed with ADD/ADHD?

❑ **Yes,** I can recall a success story dealing with a student diagnosed with ADD/ADHD.

❑ **No,** I cannot recall a success story dealing with a student diagnosed with ADD/ADHD.

If yes, please briefly tell this story below:

(20) Can you identify particularly helpful instructional/behavioral resources that you have consulted dealing specifically with adolescents with ADD/ADHD?

❑ **Yes,** I can identify helpful resources dealing with adolescents with ADD/ADHD.

❑ **No,** I cannot identify helpful resources dealing with adolescents with ADD/ADHD.

If yes, please list those resources below:

(21) Did you participate—either at your current school or at another school—in an inservice training program on classroom approaches for dealing specifically with students diagnosed with ADD/ADHD? (Please check only one response.)

❑ **Yes,** I did participate in such a program at my current school.

❑ **Yes,** I did participate in such a program at another independent school.

❑ **Yes,** I did participate in such a program at a public school.

❑ **No,** I have not participated in such a program, and my current school offers one.

❑ **No,** I have not participated in such a program, and my current school does not offer one.

❑ **No,** I have not participated in such a program, and I am unsure if my current school offers one.

If yes, please briefly describe the training below:

(22) If you have been successful with students diagnosed with ADD/ADHD, would you be willing to speak with the primary researcher of this study by means of either e-mail or a telephone interview? If so, please provide your e-mail address and either a work or home phone along with the most convenient times to call.

(23) If there is anything that this survey has omitted that you feel is important to the study or under-standing of adolescents with ADD/ADHD, please feel free to enclose additional comments when you return your survey questionnaire.

THANK YOU FOR YOUR PARTICIPATION!

Please Return to:

Mark A. Carleton
Post Office Box 1337
Chattanooga, TN 37401

Appendix C: Cover Letter to Headmasters/Principals

Pedagogy and ADD/ADHD Study
P.O. Box 1337, Chattanooga, TN 37401

Date

Name and Title
Institution
Street Address
City, State, Zip Code

Dear _____,

Attention Deficit Disorder (ADD) and Attention Deficit-Hyperactivity Disorder (ADHD) are of increasing concern to everyone in the education profession. To be sure, thousands of articles focusing on ADD/ADHD have reached the pages of psychological and educational journals and resource books. However, to date no national study of the specific pedagogical approaches used by independent high school teachers to deal with these learning differences has been conducted.

Your school has been chosen for inclusion in the first such national study. The researchers for this study need your energy to ensure the highest return rate possible. To accomplish this task, we are asking principals and headmasters to identify one teaching faculty member who is most experienced in teaching students diagnosed with ADD/ADHD. The survey questionnaire that forms the backbone of this study is included in the enclosed packet and should be forwarded to the individual the principal or headmaster has identified. Anonymity of both individual and institution are guaranteed.

Enclosed, please find the following: (1) a cover letter to the classroom teacher of your choice, (2) a survey questionnaire for that teacher, and (3) a self-addressed, stamped envelope in which the teacher will return the survey. Please pass these three items along to the member of your teaching faculty that you believe can be most helpful in the survey. A summary of the results of the study, scheduled to be completed by August of 1999, will be sent to you if you request them. In keeping with the University of Tennessee's regulations regarding the protection of the rights of human subjects, your teacher's return of the survey is considered your informed consent to participate in the study.

Your participation in the Pedagogy and ADD/ADHD Study will be helpful to independent schoolteachers in the attention they can give to students diagnosed with ADD/ADHD. Thank you in advance for your prompt attention and response.

Sincerely,

Mark A. Carleton

Appendix D: Cover Letter to Teachers

Pedagogy and ADD/ADHD Study
P.O. Box 1337, Chattanooga, TN 37401

Date

Dear Teacher,

Attention Deficit Disorder (ADD) and Attention Deficit-Hyperactivity Disorder (ADHD) are of increasing concern to everyone in the education profession. To be sure, thousands of articles focusing on ADD/ADHD have reached the pages of psychological and educational journals and resource books. However, to date no national study of the specific pedagogical approaches used by independent private high school teachers to deal with these learning differences has been conducted.

Your principal/headmaster has recommended that we contact you since you are seen as the member of the teaching faculty at your school who is the most experienced in teaching students diagnosed with ADD/ADHD. We hope you will choose to participate in this research on behalf of your school by completing the enclosed questionnaire and returning it by **April 30, 1999** in the enclosed, self-addressed, stamped envelope. A summary of the results of the study, scheduled to be completed by August of 1999, will be sent to you if you request in writing on the survey itself.

You will notice that your questionnaire has a code number at the upper right-hand corner. This number is used for follow-up purposes only, and you may be assured that the analysis of the data gained from you or from others will be completely anonymous both individually and institutionally. In keeping with The University of Tennessee's regulations regarding the protection of human subjects, your return of the questionnaire will be considered your informed consent to participate in the study.

We believe the results of this study will be of great interest and help to independent school teachers across the nation who are attempting to give the best quality of instruction to their students diagnosed with ADD/ADHD.

Sincerely,

Mark A. Carleton

Appendix E: Return Letter to Non-respondents

Pedagogy and ADD/ADHD Study
P.O. Box 1337, Chattanooga, TN 37401

Date

Name and Title
Institution
Street Address
City, State, Zip Code

Dear _____,

Even though I have not received your response to my initial inquiry, I am still hopeful that you or someone in your institution will participate in our study of Pedagogical Approaches to ADD/ADHD in independent schools. In the event that the original request did not reach your desk or was misplaced somehow, let me acquaint you with this study.

I am surveying independent schools that are inclusive of grades 7-12 to determine what teachers know about and are doing for their students diagnosed with ADD/ADHD. The purposes of the study are to determine: (1) whether the responding teachers' independent high schools have a system of responding to the needs of ADD/ADHD students that includes treatment teams to assess and oversee the programs planned for ADD/ADHD students; (2) whether teachers are included in these treatment teams; and (3) how independent high school teachers are responding to the pedagogical needs of ADD/ADHD students in their classes.

A summary of the results of this study will be sent to every school that chooses to participate by returning a questionnaire. You will notice that the enclosed questionnaire has a code number at the upper right-hand corner. This number is used for follow-up purposes only, and you may be assured that the analysis of the data gained from you or from others will be completely anonymous both individually and institutionally. In keeping with The University of Tennessee's regulations regarding the protection of human subjects, your return of the questionnaire will be considered your informed consent to participate in the study.

I hope your school will choose to participate in this study by returning the enclosed questionnaire by **May 12, 1999**. I believe the results will be of great benefit to independent school administrators and teachers alike. Thank you for your time and consideration in this matter.

Sincerely,

Mark A. Carleton

Appendix F: Responses Regarding Teacher Training and ADD/ADHD

- "I attend at least one workshop a year specifically dealing with ADD/ADHD. I have attended the national convention."
- "Sessions (at the current school) included: (1) understanding the neuropsychological model of L.D.—including ADHD, (2) maximizing collaboration of tutors and teachers, (3) promoting motivation and self-esteem, and (4) developing accommodations and instructional adjustments."
- "My training comes from my Master's work in Special Education and the inservice programs at our yearly inservice day. Inservices tend to try to explain the challenge and offer too much help to the student. ADD/ADHD is the way the student is and the challenge is to find ways to make them successful in the world they will have to deal with, not the 'special' arrangements often offered in inservices."
- "I have given workshops on dealing with ADD to both public and private schools. I have spoken to C.H.A.D.D. (support group for parents of students) on study skills, and I have run a successful homework helper/study skills self-help support group for students with ADD."
- "We watched this video (*When the Chips are Down*) as a faculty and discussed it. I watched it separately several times before the rest of the faculty."
- "We viewed the movie *How Difficult can this Be?* Mel Lavine was brought in as a guest speaker for an inservice day. I attended a workshop in North Carolina dealing with *Different Kinds of Minds* by Lavine."

Appendix G: Success Stories about ADD/ADHD Students

- "The real successes are the ones who have been treated with ritalin and go from an F to an A in a short period of time. I currently have an ADHD student whose parents have taken him off medication and treat him with kid gloves. This approach only encouraged him to be lazy and stay unfocused. After a few months of my being sympathetic, I took a harsher approach and his grade jumped from a D to a B."
- "I utilized a student's artistic ability to draw a scene depicting the atrocities of the Holocaust instead of completing handouts. I have found the use of technology very helpful with these particular students."
- "A number of students have been diagnosed as a result of faculty recommendation and are quite relieved to know they are not stupid or crazy. We allow weekly therapy with psychologists via telephone. Students learn to understand and accept ADD and don't use it as an excuse."
- "Incoming freshmen are often overwhelmed with the demands of our school. AD/HD students lack the organizational skills to be initially successful. Patience on my part while helping the student to become organized has allowed many of them to eventually rise from the "D" level to the Honors Level eventually."
- "One of my students was having a great deal of difficulty with analyzing literature. Basically, he was not focusing on the material and missed key passages. In addition, he did not want anyone to guess he was ADHD. During advisor periods, where students and teachers have an opportunity to work one-on-one, I used to tell him about my children—two of whom have ADHD. As he became more accepting of the

fact that lots of people have ADHD, he confided to me that he had it and needed help with literature. He continues to seek me out for help in this area and now, three years later, he made the honor role for the first time. He has accepted that he must employ strategies and seek help and is not ashamed to do so, knowing that there are others like him with ADHD in the world."

- "Change in timing of medication and organizers."
- "The last student I dealt with made great progress personally and academically. She is now in college doing well."
- "The gentleman's greatest challenge was maintaining focus and organizing and keeping material to turn in and/or to refer back to. Using a 5-section spiral notebook, his work was checked and kept in the book. I also started with my front walls blank. As the years progressed, he was able to correct errors using previous work and slowly I added posters to the front of the room. When his attention wandered, I asked if he needed help and that generally pulled him back to where he could finish his work. As he learned to see himself as successful he began to hold himself more accountable."
- "As students separate and work for mastery, gradually they gain the confidence and speed to join and keep up with the next class. As these kids find success possible and build a solid background, often they begin to find the connection for each new concept and the last concept. As they find a way to be successful they find a reason to remain focused, though they may never work in the same manner as others. They must be comfortable with themselves and their learning process to be academically successful. It is okay to be different; it is not okay not to learn."

- "Many professionals have I educated over the years, diagnosed with ADD/ADHD who are now successful. This includes my two sons—both diagnosed—my introduction to ADD/ADHD."
- "Having watched the video, *When the Chips are Down*, I tried to change my approach to a very positive one—always encouraging, always positive and giving special attention as much as possible. It has worked. I am definitely getting better behavior."
- "By using a contact and setting up a daily work schedule with a student and her parents, we were able to help this child complete her work on time. Using a checklist in the locker of another student allowed her to arrive in class with her needed supplies."
- "I had a student entering my classroom from our middle school who was diagnosed with ADHD the summer between 8th and 9th grades. He had made C's, D's, and F's in middle school. I made some accommodations for him (i.e., less written homework, special seating, etc.), used lots of visual and hands-on work, and emphasized the use of the computer. He made B's the entire year and went on to do very well as he moved through high school."
- "This year just the change of a 30 minute time frame in taking medication has truly improved one sophomore boy's ability to function well in the classroom. Working with one student in private tutorials on organizational skills has been most successful in helping him become focused."
- "Chris took SAT/ACT in junior year with extended time testing accommodations. He was still easily distracted even though there were only four other students taking tests

in the room with him. We contacted the neuropsychologist who did his evaluation, requesting a recommendation for one-on-one testing in a non-distracting environment. Chris raised his ACT scores by eleven points when he took them again."

- "A transfer student successfully transitioned into our school particularly because of our team approach toward his needs."

Appendix H: Additional Input on ADD/ADHD Students in Independent Schools

- "I am ADD myself and only was diagnosed four years ago. I wished that I would have known in my school years so I could have made better adaptations in my school years. Now that I know I am, I understand where they are coming from."
- "We find a very high rate of success with ADD students and not nearly as significant progress with ADHD. Working to help parents of ADD/ADHD is of utmost importance—parent education. Our school is a private, 9-12 college prep boarding and day school. My oldest son was diagnosed with ADD about 8 years ago."
- "My awareness of the problems of the AD/HD student has come about because my 16-year-old son (a student at my school) is ADD/ADHD."
- "Most students improve more with medication than without. Strategies are partially helpful, but very helpful when student uses medication."
- "The kids need to feel they are capable of what everyone else can do. They need to understand that they think and work differently and that is okay. They need to be allowed the dignity of learning in their own way and yet, being accountable to the same material of every other student."
- "The trick is how to address the issues without being conspicuous to the student. Weaving the strategies into a well developed lesson plan is critical."
- (The following response comes from a letter sent to the primary researcher by the Head of an all-boys school who opted not to participate in the survey.) "There is a growing consensus among my colleagues that the ADD/ADHD diagnosis is often too casually and imprecisely made. In boys especially these so-called 'disorders' or

'deficits' are often on the margins of normative boy behavior. So far as we can tell, there are no quick or miracle 'cures' for adolescent learning problems, whether presenting themselves under a formal diagnosis or not. The solution, we find, is invariably additional time and attention to each student. The trick seems to be to win the student's emotional confidence so that he is best able to address deficiencies which, by the time one is in seventh grade, are loaded with social meaning and bad feelings. Lots of adult attention and extra time on task to not seem a very high-powered formula, but they are what combine to improve our most problematic students . . . All of this is by way of telling you that teachers here would have little basis to respond to your questionnaire. The more thoughtful of them would want to quibble also with premises which seem to be embedded in the questions, such as there being known 'special needs' of ADD students. In this we may be benighted, but we don graduate quite a wide range of learners, all of whom matriculate nicely through excellent colleges and universities. There are two questions, however, toward the end of your questionnaire that I believe we could answer helpfully. We do indeed know many success stories of boys with problematic learning patterns who find their feet and thrive. We also have vivid experiences of boys whose problems cannot be addressed within the rigor of our standard program. Happily, the former probably outweigh the latter five to one."

VITA

Mark A. Carleton was born in Baton Rouge, Louisiana, on May 31, 1969, where he was a happy Tiger fan for the first 18 years of his life. When he graduated from Catholic High School of Baton Rouge in 1987, he determined that he should pursue an exciting future in the world of baseball at Centenary College of Louisiana. Before his graduation from Centenary in 1991 with a Bachelor of Arts degree in English, the tragic realization that a fastball in the mid-80's was hittable not only by most college players, but also by most eight-year olds forced him to entertain other career options. Since he had been a good student throughout his college days, he decided to put off entrance into the real world in order to continue his career in the classroom. As a result, he entered Louisiana State University from which he received his Master of Arts degree in English in 1993. After a rewarding five-years of high school teaching and coaching, a miraculous marriage to a wonderful woman, and a move from Louisiana to Tennessee, he caught the "school bug" again and enrolled in a doctoral program offered by the University of Tennessee at its Chattanooga campus. The doctoral degree was conferred in May of the year 2000.

He is currently the Chairman of the English Department at Baylor School in Chattanooga, Tennessee, where he enjoys long, animated walks with Laurel, his wife of five years, and the occasional peanut M&M.