EFFECTS OF PARENT AND TEACHER ADMINISTERED BEHAVIOR MODIFICATION, COGNITIVE TRAINING, AND CLASSROOM TECHNIQUES ON ATTENTION DEFICIT - HYPERACTIVITY DISORDER CHILDREN

(EXPERIMENTAL - SINGLE-SUBJECT DESIGN)
The theories explaining and supporting over-active children, hyperactive children, have changed and been revised over the years. The terminology has been updated as well. Attention Deficit-Hyperactivity Disorder, ADHD, is the most recent terminology according to the latest edition of the American Psychiatric Association diagnostic handbook. This most recent term tends to focus on attention and impulsiveness as well as hyperactivity. (Ingersoll, 1988)

The Diagnostic and Statistical Manual third edition, revised, DSM III-R, provides guidelines for diagnosis of ADHD. Of the 14 specified behaviors listed, eight must be present for a period of six months prior to diagnosis. The onset of these behaviors must be present before the age of seven. (Ingersoll, 1988) "As many as 60-70 percent of hyperactive children show specific, telltale symptoms by two years of age or even earlier." (Ingersoll, 1988)

The characteristics of ADHD continue throughout school age children. Thus making their unique behavior disorder a real challenge to teachers. While there are no real physically visible characteristics of ADHD, these children appear normal. In fact, a study conducted at the University of Illinois showed that about 80 percent of a large group of hyperactive children did not display obvious signs of hyperactivity in the doctor's office. (Ingersoll, 1988)

Children with ADHD have greater social, academic, and emotional problems than do other children. The child's parents
and teachers are perhaps the most significant adult relationships the child encounters from childhood through adolescence. (Ingersoll, 1988) The structured classroom environment is the first time many of these children face social, academic, and emotional situations at one time.

This study combines the interaction of teacher and parental relationships with the child and the school environment. Using behavior modification, cognitive training, and behavior techniques unique to the classroom setting, this study will evaluate the effects of these treatments on the child with ADHD.

Statement of the Problem

Children with ADHD are often outcast socially by their peers and teachers because of their disruptive behavior. They present an academic problem due to their inability to concentrate on one task for a sufficient period of time. The ADHD child has a hard time remaining in their chair when asked. Their attention is easily distracted by extraneous stimuli. Thus, they tend to present a discipline problem for the teacher. These behaviors are not unique to school settings. These children and their unique problem present a challenge for the parents as well. Because they are usually aggressive and overbearing they tend to be destructive and present discipline problems among siblings. Overall, the ADHD child presents a unique challenge to parents and teachers in a variety of social, academic, and emotional situations.

There is no researchable problem stated here. You identified a social problem. To make it researchable, you must identify a problem for which data can be gathered.
Purpose of the Study

The purpose of this study is to determine the effects of parental and teacher training in behavior modification, cognitive training, and classroom behavioral techniques on the ADHD child. The effects are expected to show up in social interactions, academic, and emotional situations.

Significance of the Study

If the interaction of parental and teacher treatment and training has a positive effect on this small group of ADHD children then this would be cause for a larger replication of this study.

If behavior modification, cognitive training, and special classroom behavioral techniques alone are not effective the researcher of a later study might try pairing a special diet program with behavior treatment.

Limitations of the Study

A major limitation of this study is the lack of external validity. Because of the single-subject, A-B logic design, the evaluations of this study cannot be generalized beyond the subjects in this study.

The subject selection is another limitation. The subjects in this study are volunteers. There are several problems to note when using strictly volunteer subjects. Volunteers tend to be more sociable, more intelligent, and more self-disclosing just to
name a few.

The children in this study are from two-parent families. This is not a true representation of ADHD child families. However, the basic ADHD characteristics will be under observation. Thus, this should not effect the overall outcome greatly. —I'm not as confident as you seem to be.

Some of these children may be on medication. This will be suspended during this study period with the doctor's permission. An ethical problem!

These students on medication will be noted however.

Mortality might be a problem. However, since this study is only five weeks in length, and the number of subjects is small, it is not likely to present a great problem.

The individual maturity of the subjects will be related to the individual age. The period of five weeks during which this study takes place should not present a major maturation problem. Although, there is always a possibility.

**Definition of Terms**

**Baseline**: A measurement of a specified behavior without any treatment or variables present that is observed by an objective, trained observer. The subject is observed in a natural environment. In this case, the classroom.

**DSM III-R**: Diagnostic and Statistical Manual, third edition, revised. Used to clinically diagnose mental, psychological, and behavior disorders.

**ADHD**: Attention Deficit-Hyperactivity Disorder. A disruptive behavior that combines the focus of attention span with the characteristic of hyperactivity.
Procedure

This single subject study will involve sixty-eight students who have been clinically diagnosed by the DSM III-R criteria as having ADHD. They would range in age from five to eight years. None of these children will be on medication during this study period. Good luck finding them. Be sure not to try to take a subject's medication away for purposes of the study — unethical!

A letter describing this study, its purpose, and practical significance will be sent to suggested referrals from a local psychiatrist. The subjects will be strictly volunteers. The teachers of these volunteer subjects will then be sent the same letter and given the opportunity to comply. Only those subjects whose parents and teachers volunteer will be chosen to complete the study.

The parents and teachers will attend a one to two hour orientation to the study. At this time they will be informed of the study's purpose and intent. They will be informed of the step by step procedures of this study. The parents and teachers will be required to attend joint sessions. Thus having more insight on the total treatment plan.

Parents and teachers will attend two days of extensive training classes on behavior modification, and cognitive training techniques. These classes will be lead by qualified licensed instructors. A number of techniques will be taught using lecture format, video tapes, and role play. On day three the parents will be instructed on how to rate responses on the Home Situations Questionnaire developed by Dr. Russell A. Barkley. (Ingersoll, 1988)
It will also be told to them at this time that their responses to this questionnaire are not a measurable consideration of this study. They will be urged to be totally honest while evaluating their child's behavior at home. The teachers, on the other hand, will be trained on techniques strictly geared toward classroom settings and behaviors unique to this environment.

The study will be A-B logic design. It will extend over a five week period. Week one will consist of three days of observation in the classroom setting to establish a baseline. The days will be chosen randomly. Each subject will be observed five minutes out of each hour by trained observers who are unaware of the study's purpose. Each five minute observation period will be chosen randomly as well.

At the end of week one, a baseline should be well established. The parents will begin to administer the behavior modification and cognitive training techniques they learned in training on the child in the home environment. The parents will then use the Home Situations Questionnaire to report their evaluation of the child's behavior. This will be done each day. Each parent will individually rate their own personal interpretation of the child's behavior. The child will be observed at school in the same manner as week one.

No treatment will be given during week three. The child will simply be observed at school and the parents will continue to report individual evaluations of the child's behavior. At the end of week three the teachers will have a chance to review the training video tapes and practice the classroom techniques learned in week one.
Week four will consist of both teachers and parents administering techniques learned in training. The child will be exposed to behavior modification and cognitive training techniques at home and school. There will also be the special classroom environment behavior techniques administered by the teacher. The child will be observed at school as usual and the parents will report as before.

All treatment will be suspended during week five. The child will be observed at school and behavior evaluations will be reported by each parent.

Only the observed results will then be plotted on a frequency/time graph in the A-B1-A-B2 style. If the treatment appears effective the parents and teachers will be encouraged to continue to use the techniques learned in training. If the treatment alone appears to be ineffective then a replication of this study could be set up using diet as a second variable. Perhaps behavior treatment paired with dietary measures would yield a different outcome.