

# Applying the scientific method



**ASSIGN  
BUSTER**

Attention deficit disorder (ADD) is a syndrome in which a person has difficulty focusing sustained attention on a task for a significant amount of time.

In some cases this is accompanied by hyperactivity as well. It is currently being diagnosed at an all time high. Between 1989 and 1996, youth visits for ADD ... See More increased 90%, from 1.9% of total physician visits to 3.6%.

Now a psychiatrist, Dr. Edward Hallowell is making a new distinction. He has described a similar set of characteristics in a large number of patients that he terms Attention Deficit Trait (ADT).

It looks a lot like ADD in its day to day manifestation, but unlike ADD, ADT symptoms lessen when the sufferer goes on vacation or into a decreased sensory input setting for an extended time period (on the order of days or weeks). In such a long-term placid situation, the ADD sufferer's problems continue unabated.

We will pretend (assume?!) that you have the general set of symptoms described above. You'd like to know which of these two problems you have: the disorder (ADD) or the trait (ADT). We'll approach your problem using scientific methodology—developing a question, an hypothesis, an experiment, and a control for the experiment.

Let's share this assignment. I will supply both the initial question and the experiment we'll perform on you. Your job is to state the hypothesis and to design the most important and most basic control for this experiment:

Your Question: What's my problem? Is it ADD or is it ADT?

(1)Your Hypothesis: Vacation time at the Bahamas will enable me to determine the level of attention deficit in the vacation atmosphere; upon analysis, I will correctly be able to determine my diagnosis

Your Experiment: Keeping your same diet, sleep habits, and basic activity level, you will be sent on a two week vacation to the Bahama Islands where you will be given only a beach to walk and your favorite friend to talk to, following which you will be asked to read and memorize 10 sequential definitions from a standard dictionary in 30 minutes' time.

Your assignment:

1) Write out a testable hypothesis in a brief sentence. Derive it from the question posed above. (Be certain that the experiment addresses it!)

If my correct diagnosis is ADT, then the symptoms of my attention deficit will be reduced by vacation time as measured by my ability to memorize ten sequential dictionary terms and recall them in 30 minutes.

2) In a second sentence describe a basic, critical control situation (additional experiment?) that will give validity to the experiment described above.

The control situation will be the degree of my attention deficit in my regular home situation ceteris paribus as measured by the retention of ten dictionary terms I will attempt to memorize in a period of 30 minutes.