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# ADHD/ADD ATTENTION DEFICIT HYPERACTIVITY DISORDER/ ATTENTION DEFICIT DISORDER

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# **Definition of ADHD**

This section will introduce and discuss a definition and description of ADHD. ADHD is a concept developed by psychologists and psychiatrists; it often assumes there is some chemical imbalance (that's why medication is prescribed) in the child that is causing excessive movement, lack of attention, distractibility, and annoyance to others.

ADHD--What a term! Sounds so official and severe at the same time. Just remember that it was made up by a handful of human beings. It's not in stone, not in *The Bible*, not necessarily "true." But, like many other conditions that professionals have created, we begin to believe it exists when we see possible signs of it, and then we find evidence for its existence.

ADHD is a judgment call; it's not like an infection where one can see the bacteria. The condition is inferred. However, once we assign a condition to a child, he or she "has it," even if the diagnosis was incorrect. So, there's much mischief that can occur with the ADHD label; go carefully here.

You've been in situations where you wanted to say something, but you kept your mouth shut. You almost had to bite your tongue to keep from blurting out what you wanted to say. There's a part of the brain that helps us to do that, but that part doesn't work in all people. You might notice that your aging mom or dad, or grandfather or grandmother is losing this control. For some who are aging, this "gate" begins to deteriorate with age, and what mom used to keep quiet about she now says.

For children, that part of the brain is still developing, not fully formed. For children with ADHD, development of this part of the brain might be delayed or malfunctioning. If it's in the mind, it's in the mouth! This type of child "doesn't sit still." The child is "always out of his seat,." This kind of child is "fidgety and has a short attention span." These kinds of observations lead to the assumption of ADHD.

The point to remember is that a diagnosis of ADHD is a professional diagnosis, but many children can exhibit the characteristics without being professionally diagnosed.

# **Situationally Specific ADHD**

This section will introduce ADHD-type behaviors that are not shown in all situations.

Before we can label a child with ADHD, we should see if the behaviors exist

in all situations. If there are times when the child can be attentive for long periods, then we know that environmental conditions play a part in causing the problematic patterns. If the behaviors exist all of the time under all conditions, then we can suspect that there is a biological cause for ADHD. In other words, if the child



seems to be able to "turn off" and "turn on" the behaviors depending on the situation, biological sources are questionable.

This is an important point about ADHD. If we have an infection or a broken leg, those conditions are present wherever we are--at home, in church, or at the market. These are physical conditions. However, if we don't exhibit ADHD characteristics in all situations, then the biological component is most probably not dominant. That means that some of the behaviors are open to modification without medication.

While we know there are chemical imbalances that cause different problems, too often we look to the person having the problem instead of looking how the environment might be contributing to the problem. By "environment" is meant conditions outside the child. So we should look to the classroom conditions and the home conditions to see if anything might be contributing to the problem behavior we think is ADHD.



In short, does the child act the same at home, at church, at a ball game and at school?

Classroom behavior is particularly vexing. Not all class work is stimulating. Some class work is very repetitive, to the extent it is almost hypnotic. A gray pencil against white paper does not do much to stimulate activity in the brain. The pencil has to move slowly, for the letters to be correctly aligned and shaped and

spelled and organized. For the beginning writer this is quite a chore. Also, some reading, as you know, can put one to sleep.

The point is that if the ADHD characteristics are biological, they will show up everywhere. If they don't, then we know that the environment is playing a vital role in their occurrence.

# The Need for Stimulation

This section will address the need for a certain amount of stimulation by everyone, especially children.

There is a form of torture known as sensory deprivation. A person (it might be a prisoner of war from whom the captors want information) is put into a water tank, with floating devices on the arms and legs. The room is pitch black, and there is no sound. The person feels little, and sees and hears nothing. It drives people crazy, most of the time just temporarily. Even when people have been paid to experience this condition in experiments, they will signal the wish for the experience to end, even though their pay is quite good. The suffering isn't worth it.



Not so dramatic is the speaker who drones on and on and on and on. We have a hard time staying awake. Ever experience something like this? Sure, we all have. Is your lack of interest due to you having a problem or the speaker having a problem? You will be quick to say it's not you; and it's not.

What do people do when there is insufficient stimulation? All sorts of things. Watch people who are waiting, maybe for a doctor to see them or for a bus to come by. They will often move their arms, pace, thumb through a magazine---move themselves somehow.

Children in a low-stimulus classroom often react the same. They jiggle, tap pencils, flip through pages, maybe doodle. With a child with ADHD, this behavior can easily escalate to getting up out of the seat, throwing pencils, getting completely different materials out to play with. We all know that poking the child next to them and creating a rumpus is not far off!

Most children have to work hard to control themselves. They learn to be "good" and do what is required, even though they are itching for action. We each

differ in the amount of in adequate stimulation we can tolerate. The adults who live with the child often develop a sense of the child's limits. "Sit still," the parent will tell the child in church. "Stop wiggling." However, the wise parent is prepared with some quiet activities that will not be attention getting. Can we do the same in the classroom?

The idea is that we all need a certain amount of stimulation, and when we don't get it, we create it: both adults and children.

# **A Seeming Contradiction**

This section addresses the fact that the child with ADHD characteristics might not benefit from a reduction in stimulation.

Our first impulse for the ADHD child is to just lower the amount of outside stimulation. We might tend to calm down the visual field, by, for example, removing extra posters and displays in the room. We might be inclined to require a more than ordinary quiet room. We might even think that the child with ADHD characteristics would benefit by working totally alone. You get the point.

Since each child's individual need for stimulation is so different, the adult



must carefully balance the stimulation in the environment. The balance between too much and too little is delicate and takes planning. The child with ADHD characteristics reacts more strongly to too little or is overwhelmed by too much. Individual preference might not be what you expect. As usual, we have to experiment.

We are adults with our own preferences and cannot expect children to have the same ones.

The point is that too much or too little stimulation can hamper the learning process. For the child with ADHD characteristics it is very important to remember this.

# **Enlivening the Learning Environment**

In this section we will discuss the difference between enlivening the environment and making a distracting environment.

To enliven the environment, more variety can be introduced. So, before we label the child with the condition, we are going to make things a bit more

interesting in the classroom Can there be little constructions the children can manipulate for, let's say, math and social studies? Can there be some kinesthethic-movement activities for learning concepts or facts? Can children get up and move around for part of the lesson? Is there a time when children can talk to each other by discussing answers or solving problems during the lesson? All of these instances help to keep the child actively engaged.

On the other hand, stimulation, when overdone, can be distracting. Can we confuse the learning environment by having too much going on? Can we overdo it? Sure. We can overdo anything. Chaos is the extreme of stimulation. We get too much, and it's a distraction, not an asset. It doesn't help learning, it interferes with it. It's your judgment how much stimulation is ideal for the child with ADHD characteristics.

The point is that you do not have to be a television entertainer. Just create a learning environment where the children are interested, active, curious, and emotionally energized. Optimal learning occurs under these conditions.



# **Structuring the Learning Environment**

In this section we will consider ways to assist children by structuring the learning environment.

Okay, so we've done all we can think of to create variety, activity, and stimulation. However, Josh is still somewhat hyper. We have to help this child. In order for Josh to effectively be absorbed into society, he is going to have to control some of his impulses. So, we have to help children to develop self-control.

Josh is in Standard 4 and has been reprimanded in his previous classes for his classroom behavior. We know that he has been scolded, lectured to, and otherwise reprimanded for what he has done. What has been the effect on Josh? We know he has gotten much attention, and we also know that attention is a powerful reinforcer. If reinforcement in the form of attention could strengthen inappropriate behavior, we could use it to strengthen desired behavior. In a sense, Josh has told us what works for him.

Research evidence reveals that reinforcement of desired behaviors is often equally effective as medication. Even more so, for we don't have side-effects with reinforcement as we often do with medication. For a child designated with ADHD

characteristics, structure seems to be the "medicine" of choice.

You decide what desired behaviors you want to see in the designated child. Most likely you want the child to attend, show patience, take turns, not blurt out answers, do his work appropriately and stay in his seat. If you want this, pay attention to it through reinforcement.



Remember; attention is a powerful reinforcer. Use it to your advantage. We are going to create conditions that are associated with effective learning, but learning is our main objective.

In addition, determine the child's preferred learning style. Some learners prefer listening rather than reading content (especially so if there is a reading learning disability or difficulty). Other learners like a low level of background "noise," as opposed to complete silence. Still other learners like to work on a project in pieces, rather than handling all the elements at one time. These are some examples of the variations of learning preferences among students. Of course you will not be able to cater to each one to the utmost, but some accommodation will benefit the child with ADHD characteristics.

The point is that when you have a child with ADHD characteristics in a group setting, you have to make accommodations for him to participate positively and to learn.

# Using a Reinforcement Program in the Classroom

In this section we introduce how a reinforcement program can produce wanted changes.

Using what are called behavioral interventions has been shown to be very effective for most students who are assumed to have ADHD. Essentially this means that your response to desired behaviors is very powerful. At the same time, you will structure the surrounding social environment (the other students) to support the development of academically and socially appropriate behaviors. The most important element here is to use reinforcement. Please refer to the section in on reinforcement, in the *Teachers' Resource Manual* (in the principal's office in a binder and in this section of the website) for information about this approach.

Two important points from the reinforcement section bear repeating. One is that behavior changes slowly, in small steps. We all would like to see quick changes, but they seldom occur. For any improvement in the characteristics that you are concerned about, reinforce. The second point is to reinforce shortly after the desired pattern is displayed. In this case it will the absence of the unwanted pattern. If the child is sitting and doing his work for two minutes, reinforce. If the child is not fidgeting, reinforce. It would be the same approach to limit foul language; you reinforce when the child isn't saying those words.

The point here is: Reinforcement programs take careful planning and constant attention to be successful. They do work, and the effort is well worth it.

### **Internet Sources:**

If you have access to the internet, just type in "ADHD," and you will find much material.

Each teacher has her or his individual differences; so what works for you might not be what works for another. However, between what is in this section, in the Reinforcement section, and on the internet, you will find the elements that work best for your style.

# Specific Teaching Tips to Maximize Learning for Students with ADHD Characteristics

- Use peer tutoring (See "Peer Tutoring" in the website section on "websites) whenever possible with Attention Deficit students. Use older children to help him, and perhaps allowing the student to tutor a younger child.
- Provide an outline to students with key concepts or vocabulary prior to lesson presentation.
- Children assumed to have ADHD are easily bored, even by you. Try to increase the pace of lesson presentation. Include a variety of activities during each lesson appropriate to primary school.
- Use multisensory presentations, but be careful with audiovisual aids to be sure that distractions are kept to a minimum. For example, be sure interesting pictures and or sounds relate directly to the material to be learned. We all seen Powerpoint

presentations where the graphic cleverness dominated the content and distracted form it.

- Make lessons brief, or break longer presentations into discrete segments.
- Actively involve the attention deficit student during the lesson presentation. Have the student be the instructional aid who is to write key words or ideas on the board.
- Allow your students to make frequent responses throughout the lesson by using choral responding, frequently calling on many individuals, having the class respond with hand signals.
- Try role-playing activities to act out key concepts, historical events, etc.
- Be creative! Yes, it is possible for even you to bore a student. Work at teaching, motivating, and entertaining. The more exciting a subject is to a child, the better he will learn. Be excited about what you are teaching!
- Your student would probably find lessons that emphasize "hands-on" activities highly engaging.
- Keeping the time required for sustained attention on task balanced with more active learning will improve performance.
- Use cooperative learning activities, particularly those that assign each child in a group a specific role or piece of information that must be shared with the group.
- Develop learning stations and clear signals and procedures for how students transition from one center to another.
- Use game-like activities, such as "dictionary scavenger hunts," to teach appropriate use of reference/resource materials.
- Interact frequently (verbally and physically) with your attention deficit student. Use the student's name in your lesson presentation.
- Pair students to check work.
- Provide peer tutoring to help student's review concepts. Let students share recently learned concepts with struggling peer.

- When presenting a large volume of information on the chalkboard, use colored chalk to emphasize key words or information.
- Changes in instructor's voice level and variation in word-pacing will also increase his attention during instruction.
- Make sure that your student establishes eye contact when receiving direction/instruction. This will improve his understanding and follow-through on the task.
- Give directions one step at a time. When a series of instructions are given, retention beyond the first direction is difficult.
- Combine verbal directions with illustrations or demonstrations of the desired task.
- The use of multiple modes of instruction --multisensory learning--increases the successful learning of the task.
- After giving directions, have your student paraphrase what you said. This will increase his comprehension and provide an opportunity to check for understanding.
- Your student may tend to want to be "the first one done" on assignments. Set reasonable accuracy goals with him and collect the entire group's work at once to reduce time pressures.

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No one ever said that teaching was going to be easy, and with the child with ADHD characteristics it certainly isn't! However, helping a child who can be his own worst enemy is a gift that has the potential to create a successful learner.

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