Researcher Developed Tools to Assess the Relationship of ADHD to Reading Comprehension

Reference:

Brock, S. E., & Knapp, P. K. (1996). Reading comprehension abilities of children with Attention-Deficit/Hyperactivity Disorder. *Journal of Attention Disorders, 1,* 173-185.

DSM IV Attention-Deficit/Hyperactivity Disorder Symptom Rating Scale

Subject's Name: _____   Rater's Name: _____   Date: _____

Directions: Please read each statement carefully, and determine how much the person you are rating has displayed the behavior during the past 6 months.

		Not at All	Just a Little	Pretty Much	Very Much
1.	Often fails to give close attention to details or makes careless mistakes in schoolwork, work, or other activities.	0	1	2	3
2.	Often has difficulty sustaining attention to tasks or play activities.	0	1	2	3
3.	Often does not seem to listen when spoken to directly.	0	1	2	3
4.	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).	0	1	2	3
5.	Often has difficulty organizing tasks and activities.	0	1	2	3
6.	Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (such as schoolwork or homework).	0	1	2	3
7.	Often loses things necessary for tasks or activities (e.g., toys, school assignments, pencils, books, or tools).	0	1	2	3
8.	Is often easily distracted by extraneous stimuli.	0	1	2	3
9.	Is often forgetful in daily activities.	0	1	2	3
10.	Often fidgets with hands or feet or squirms in seat.	0	1	2	3
11.	Often leaves seat in classroom or in other situations in which remaining seated is expected.	0	1	2	3
12.	Often runs about or climbs excessively in situations in which it is inappropriate (in adolescents or adults, may be limited to subjective feelings of restlessness).	0	1	2	3
13.	Often has difficulty playing or engaging in leisure activities quietly.	0	1	2	3
14.	Is often "on the go" or often acts as if "driven by a motor."	0	1	2	3
15.	Often talks excessively.	0	1	2	3
16.	Often blurts out answers before questions have been completed.	0	1	2	3
17.	Often has difficulty awaiting turn.	0	1	2	3
18.	Often interrupts or intrudes on others (e.g., Butts into conversations or games).	0	1	2	3

Reading Comprehension Protocol (Even Subject Numbers)

Name: _____ Date: _____

Macroprocessing

Passage Number: _____   Passage Number: _____

Topic Score: _____   Topic Score: _____

Main Idea Score: _____   Main Idea Score: _____

Topic Score: _____
Main Idea Score: _____

Comprehension Monitoring

Passage Number: _____   Passage Number: _____

Comprehension Self-Rating: _____   Comprehension Self-Rating: _____

Comprehension Self-Rating Total Score: _____

Microprocessing

Passage Number: _____   Passage Number: _____

Exactly Correct Score: _____   Exactly Correct Score: _____

Gist Correct Score: _____   Gist Correct Score: _____

Exactly + Gist Score: _____   Exactly + Gist Score: _____

Exactly Correct Total Score: _____
Gist Correct Total Score: _____
Exactly + Gist Score: _____
Words per minute÷EG Score: _____

Macroprocessing
(Passage Number _____)

Instructions Read by Examiner (before presenting the first macroprocessing passage):
"Now I'm going to ask you to read a complete passage to yourself. It is important to read this passage carefully because when you are done I'm going to ask you questions about the passage. I will be asking you to give a good title to the passage and for the main or important ideas in the passage. So as you read try to think of a good title and try to identify the main ideas. Take as long as you want to read the passage. Read carefully and let me know when you have finished reading." (Present first macroprocessing passage) *"Begin".* (Start stopwatch.)

Subject's Reading Time: _____

Comprehension Monitoring

Instructions Read by Examiner (once the subject has finished reading the first passage):
"Now that you have finished reading, and before I ask you some questions, I would like to know how well you think you understood what you just read. The passage was not real easy so don't be afraid to report that you did not understand the passage. Use this sheet to let me know how much you think you understood." (Examiner hands Did I Understand What I Just Read? sheet to the subject.)

Subject's Comprehension Self-Rating: _____

Topic

Instructions Read by Examiner (after the subject has completed Did I Understand What I Just Read? sheet):
"The passage you just read did not have a title. How would you title it?"

Topic: _____

Main Ideas

Instructions Read by Examiner (after the subject has suggested a topic or title):
"What were the 5 (passage 7)/ 6 (passage 3) *main ideas or important points discussed in this passage? Please tell me as many as you can think of."* (For all one word responses say: *"Tell me more about that main idea".*)

Idea 1: _____

Idea 2: _____

Idea 3_____

Idea 4: _____

Idea 5_____

Idea 6_____

Macroprocessing
(Passage Number: _____)

Instructions Read by Examiner (before presenting the second macroprocessing passage):
"Now I'm going to ask you to read another passage to yourself. Again, it is important to read this passage carefully because when you are done I'm going to ask you questions about the passage. I am again going to ask you for the topic and main ideas of this passage. Take as long as you want to read the passage. Let me know when you have finished reading." (Present second macroprocessing passage) *"Begin".*   (Start stopwatch.)

Subject's Reading Time: _____

Comprehension Monitoring

Instructions Read by Examiner (once the subject has finished reading the first passage):
"Now that you have finished reading, and before I ask you some questions, I would like to know how well you think you understood what you just read. The passage was not real easy so don't be afraid to report that you did not understand the passage. Use this sheet to let me know how much you think you understood."   (Examiner hands Did I Understand What I Just Read? sheet to the subject.)

Subject's Comprehension Self-Rating: _____

Topic

Instructions Read by Examiner (after the subject has completed Did I Understand What I Just Read? sheet):
"The passage you just read did not have a title. How would you title it?"

Topic: _____

Main Ideas

Instructions Read by Examiner (after the subject has suggested a topic or title):
"What were the 7 (passage 9)/ *8* (passage 10) *main ideas or important points discussed in this passage? Please tell me as many as you can think of."* (For all one word responses say: *"Tell me more about that main idea".*)

Idea 1: _____

Idea 2: _____

Idea 3: _____

Idea 4: _____

Idea 5: _____

Idea 6: _____

Idea 7: _____

Idea 8: _____

Microprocessing
(Passage Number: _____)

Instructions Read by Examiner (before having presented the first microprocessing passage):

"Next, I'm going to ask you to read two passages that have missing words. Here's the first one." (Present first microprocessing passage.) *"I would like you to read each passage to yourself and make your best guess at what the missing words are. Any guess is better than no response at all. But if you can't make a guess it is OK to say, 'I don't know.' and go on. It is important to try your best. Begin."* (Start stopwatch.)

Subject's Reading Time: _____

(Passage Number: _____)

Instructions Read by Examiner (before having presented the second microprocessing passage):

"Let's try one more." (Present second microprocessing passage.) *"Again, I would like you to read this passage to yourself and make your best guess at what the missing words are. Any guess is better than no response at all. But if you can't make a guess it is OK to say, 'I don't know.' and go on. It is important to try your best." "Begin."* (Start stopwatch.)

Subject's Reading Time: _____

Macroprocessing Passage 3

This passage discusses muscles and bones. You will be reading about how to keep them healthy.

The muscles and bones of your body are important. They give your body its shape. They allow your body to move. For example, muscles and bones help you to run and walk.

Also, muscles and bones protect your body's organs. For example, the skull protects your brain and the ribs protect your heart. The ribs also protect your lungs. The spine protects your spinal cord.

Because muscles and bones are important you should know how to keep them healthy. Think about all the things you could not do if your muscles and bones were not healthy.

There are three important things you can do to keep your muscles and bones healthy. The first thing you can do is to eat a proper diet. Eating a proper diet means eating the foods needed for healthy muscles and bones.

What makes up a proper diet? There are four main groups of foods that make up a proper diet. The meat group contains protein foods needed for cell growth. These foods also help to make new cells. The dairy group includes foods that contain minerals. Minerals are important because they make bones hard. The foods in the fruit and vegetable group contain needed vitamins. The bread and cereal group foods provide energy. Muscles need energy to move bones. Without a proper diet your muscles and bones will not work well.

The second thing you can do to keep your muscles and bones healthy is to get enough of the right kinds of exercise. Along with a proper diet, exercise is important for the growth and development of muscles. When muscles are not used, they shrink. This means they become smaller and weaker. Exercise keeps muscles big and strong. Without the right kinds of exercise your muscles and bones will not work well.

The third thing you can do to keep your muscles and bones healthy is to get enough rest. While exercise is important, there is a problem created by exercise. As energy is used in exercising, food is burned. When the body burns food, waste products are left behind in the muscles. Rest helps get rid of these wastes. Rest also keeps muscles and bones from being overused. Sleep helps to relax muscles and rids them of waste materials. Without enough rest your muscles and bones will not work well.

Microprocessing Passage Scoring Key Passage 9

The air you breathe often contains unwanted substances. These **substances** are called air pollution. In this passage you will **read** about air pollution. You will also read about **how** to stop air pollution.

Cars, trucks, homes, and factories use **energy**. They burn fossil fuels for energy. Coal, oil, and **gas** are fossil fuels. The burning of fossil fuels causes **air** pollution.

In parts of the United States and Canada, **there** is a special type of pollution. It is called **acid** rain. The major cause of this pollution is the **burning** of fossil fuels. Volcanoes and forest fires also add **to** acid rain. When fuels burn and volcanoes erupt, chemical **wastes** enter the air. Water vapor in the air combines **with** these chemicals. This combination forms weak acids in the **air**. These acids fall to the ground as snow or **rain**.

Acid rain falls on the land and into lakes **and** streams. In lakes and streams it increases the amount **of** acid in the water. This change kills fish. It **also** kills other living things. Acid rain also breaks down **minerals** in the soil. The breakdown of minerals robs plants **of** important materials for growth. Some plants cannot live where **there** is acid rain.

Another type of pollution occurs in **places** that have factories, cars, and trucks. This pollution is **called** smog. Most smog is a mixture of smoke and **fog**. Smog occurs when calm, moist air near the ground **is** trapped. The air remains in the area for several **days**. The longer the air stays in one place, the **worse** the pollution becomes. Smog can be harmful. It can **even** cause death.

Today, people know that air pollution is **a** problem. There are many ways that pollution can be **controlled**. One way is to stop driving cars and trucks. **Cars** and trucks cause much pollution. If people walk, ride **bicycles**, or take trains and buses pollution can be controlled. **They** can join car pools to get to school or **work**. In this way, fewer cars and trucks will be **on** the roads. There will be less air pollution.

Today **new** cars must have devices that trap and burn up **harmful** gases in car exhaust. Most new cars are built **so** that they burn only unleaded gasoline. Burning gasoline that **has** lead in it causes harmful substances to be released.

Factories are required to use special devices in their smokestacks. **These** devices use an electrical charge to attract particles from **smoke**. They also remove harmful waste gases.

An important law, **the** Clean Air Act, was passed in 1970. This law **limits** the amount of pollution allowed in the air. When **the** amount gets too high, factories are ordered to stop **burning** certain fuels. When pollution is reduced to a safe **level**, the factories can begin burning these fuels again.

Macroprocessing Scoring Guidelines

General Scoring Procedures

Before scoring any of the macroprocessing protocols, it is important for the rater to carefully read the macroprocessing passages and the Topic and Main Idea Scoring Guidelines that accompany these passages.

When scoring a given protocol the rater should first read all the subject's topic and main idea responses to the passage. Next, the rater should score the subject's topic response. If all components of the topic are present, as specified by the scoring guidelines, the subject may be given a score of 1. If only part of the topic is present, as specified by the scoring guidelines are present, the subject may be given half credit (a score of .5). If none of the topic is present, as specified by the scoring guidelines, the subject will be give no credit for the response (a score of 0).

After scoring a subject's topic response, the rater should next attempt to assign one of the main ideas to each of the subjects main idea responses. If a given response does not match any of the main ideas it is automatically scored 0. For the remaining responses, referring to the main idea scoring guidelines, the rater should next score the subjects main idea responses. If all components of the main idea are present, as specified by the scoring guidelines, the subject may be given a score of 1. If only part of the main idea is present, as specified by the scoring guidelines, the subject may be given partial credit (a score of .75 or .5). If the response does not match any of the main idea scoring guidelines the subject will be give no credit for the response (a score of 0).

Other general topic and main idea scoring guidelines are as follows:

(1) A given main idea can be scored a maximum of 1 point. For example, if a subject gives a 1 point response to main idea three, and later gives a different .5 point response to the same main idea, the score for main idea three would be 1 (not 1.5).
(2) If a topic response is scored as a 0, and the response meets main idea scoring criteria, it may be given credit as a main idea. However, a main idea may not be given credit as a topic.
(3) If the rater is unsure of whether a response corresponds to a main idea scoring guideline, it is recommended that the rater keep in mind that this is a measure of reading comprehension. If a response is given credit, it will be important for the rater to have judged that the response reflects understanding of the passage read.

Topic and Main Idea Scoring Guidelines

The following are the specific scoring guidelines for each of the macroprocessing passages. They should be read carefully before scoring a subject's macroprocessing protocol.

Passage 3

TOPIC:		***How to keep muscles and bones healthy.***
1 pt.	=	Any statement that refers to "**muscles and bones**" and keeping them "**healthy**."
.5 pt.	=	Any statement that includes the words "**muscles and bones**," but does not refer to keeping them "healthy."
.5 pt.	=	Any statement that includes reference to **keeping your body healthy** or **taking care of your body**.

Main Idea 1: ***Muscles and bones perform important jobs in the body.***

1 pt. = Any general statement which recognizes that muscles and bones perform important functions.

1 pt. = Reference to all 3 of the following important functions muscles and bones perform: they give the body its shape, they help the body move, they protect the body's organs.

.75 pt. = 2 of 3 of the important functions listed above.

.5 pt. = 1 of 3 of the important functions listed above.

.5 pt. = Any specific statement that recognizes at least one way in which muscles and bones are important (i.e., they help the body to run and walk; they protect the brain, heart, lungs, and spinal cord).

Main Idea 2: ***Eating a proper diet helps to keep muscles and bones healthy.***

1 pt. = Any statement that recognizes that a proper diet keeps muscles and bones healthy.

.5 pt. = Any statement that recognizes the importance of eating a proper diet without specific reference to keeping muscles and bones healthy.

Main Idea 3: ***The four main food groups make up a proper diet.***

1 pt. = A statement that recognizes that four food groups make up a proper diet [i.e., that there are four food groups, or specific reference to each of the four groups (meat, dairy, fruit and vegetable, bread and cereal)].

.5 pt. = Any statement that recognizes at least one, but less than four of the main food groups as being important to keeping muscles and bones healthy.

Main Idea 4: ***Getting enough of the right kinds of exercises is important for the growth and development of muscles.***

1 pt. = Any statement that recognizes that exercise keeps muscles and bones healthy.

.5 pt. = Any statement that recognizes the importance of exercise without specific reference to keeping muscles and bones healthy.

Main Idea 5: ***Rest and sleep help muscles and bones healthy.***

1 pt. = Any statement that recognizes that rest and/or sleep keeps muscles and bones healthy.

.5 pt. = Any statement that recognizes the importance of rest or sleep without specific reference to keeping muscles and bones healthy.

Main Idea 6: ***Rest and sleep rid muscles of waste materials and helps keep them from being overused.***

1 pt. = A statement that recognizes the two ways in which rest and sleep helps to keep muscles and bones healthy (i.e., it rids muscles of waste materials created by exercise and it helps to keep them from being over used).

.5 pt. = A statement that recognizes one of the two ways in which rest and sleep helps to keep muscles and bones healthy (i.e., it rids muscles of waste materials created by exercise or it helps to keep them from being overused).

Comprehension Monitoring Rating Form Used by Participants

Did I Understand What I Just Read?

Please rate your understanding of what you have just read by pointing to the number that best matches how well you understood the passage.

1
I **did not**
understand
the passage

2
I understood
less than half
of the passage

3
I understood
about half
of the passage

4
I understood
more than half
of the passage

5
I understood
all
of the passage