

SUMMARY OF THE GIBSON SUBTESTS

IMPACT OF WEAK SKILLS

The Gibson Test of brain skills consists of seven subtests that measure eleven different core cognitive skills and reports on nine skill areas. The following presents a description of eight of the skill areas and explains how weak skills can impact learning.

Attention:

The Gibson test does not specifically measure attention skills. If the participant fills out the survey, an approximation of attention skills is provided. Attention skills provide the ability to attend to a task with focus, clarity, and purpose. Attention skills include sustained attention (staying on task), selective attention (ignoring distractions), and divided attention (attending to more than one task at a time). To measure attention, we have used an attention survey because of the difficulty of separating attention from other cognitive skills in testing.

Weakness in Attention often results in: needing things repeated; poor listening; difficulty in following a conversation in a crowd; easily distracted, mind-wandering; missing important information; unable to keep things tidy; impulsive; and often has trouble getting started.

Processing Speed:

This test measures cognitive efficiency, more specifically the speed of processing simple concepts. The subject is asked to locate and click on one of two identical numbers/letters in a row of six targets. This task increases in difficulty from single digit/letter to triple digit/letter combinations.

Weakness in Processing Speed often results in: difficulty with basic reading skills, written expression, and math calculation; difficulty handling complex problems; slower performance; and frequently needing to have instructions repeated.

Working Memory:

This test measures the ease and capacity to hold data in memory while processing it. The test requires the individual to hold pictures and verbal statements in immediate awareness (memory) while performing other mental tasks before being required to respond.

Weakness in Working Memory often results in: difficulty remembering names, telephone numbers; difficulty completing problem solving operations; needing instructions repeated. It may seem that students "just don't get it."

Long-Term Memory:

This test measures long-term storage and retrieval ability. The test requires the subject to store and retrieve a series of pictures and statements after time and numerous activities have intervened.

Weakness in Long-Term Memory often results in: difficulty retrieving content for tests; a need for more practice and repetition than most; difficulty recalling math facts and blending sounds in reading; difficulty recalling names and facts; frequent use of general descriptors/words in written language rather than specific; showing inconsistent performance (A's and F's); "It's on the tip of my tongue but I can't quite remember it"

Visual Processing:

This test measures visual spatial relationships as well as recognition and manipulation of visual images - the ability to perceive, analyze, synthesize, and think using visual patterns. The subject is shown a complete puzzle and pieces and then is asked to select the piece that best matches a highlighted part of the puzzle.

Weakness in Visual Processing often results in: difficulty with rapid sound/symbol processing and copying tasks; not rapidly recognizing "whole" words; reading slowly; reduced creativity; problems understanding information from graphics.

Auditory Processing (phonological awareness):

This test measures the ability to manipulate and understand spoken sounds - which is the crucial underlying skill for reading and spelling. The test consists of a segmenting subtest which asks the subject to unglue the individual sound in a word and a drop subtest requiring the subject to identify a word after one of its sounds is removed.

Weakness in Auditory Processing often results in: difficulty with phonetic reading activities and beginning spelling skills development; poor listening and reading comprehension/language and vocabulary acquisition.

Logic and Reasoning:

This test measures the ability to reason and draw conclusions from given conditions - the ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures. The subject is presented with a set of patterns with one pattern missing and is to select from a set of five choices the pattern that best completes the set.

Weakness in Logic and Reasoning often results in: difficulty with math including algebra, statistics, and geometry; difficulty with transfer and generalization of learning; trouble with rule-bound systems of reading; being "slower on his/her feet" when required to cope with a new situation; and poor creative writing.

Word Attack:

This test measures the ability to sound out unfamiliar words and accurately recognize letter combinations. The subject hears a made-up-word and then selects one of four different letter combinations that best represents the made-up-word. (Note: "Word Attack" is not a cognitive skill but a measure of the subject's knowledge of phonic and structural analysis to read words. Normally poor word attack ability is related to poor auditory processing, however good word attack when auditory processing is poor reflects that the subject has likely had extensive phonetics instruction. It has been included in this test battery because of its importance in reading and spelling).

Weakness in Word Attack often results in: not knowing the sound-letter relationships required to read and spell resulting in poor reading fluidity (choppy reading) which then reduces comprehension.