

Skills Categories	Skill Description	Percentile Rank
<u>Processing Speed:</u>	The ability to perform cognitive tasks, particularly when measured under pressure to maintain focused attention	63
<u>Working Memory:</u>	The ability to hold information in immediate awareness while performing a mental operation on it	54
<u>Long-Term Memory:</u>	The ability to store information and fluently retrieve it later in the process of thinking	18
<u>Visual Processing:</u>	The ability to perceive, analyze, synthesize visual patterns, including the ability to store and recall visual images	3
<u>Auditory Processing:</u>	Phonemic Awareness, the ability to analyze and manipulate speech sounds; crucial underlying skill for reading and spelling	28
<u>Logic &amp; Reasoning:</u>	The ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures	22
<u>Visual / Auditory Memory Balance:</u>	Comparison of the ability to hold auditory versus visual information in immediate awareness while performing a mental operation on the information	<b>Balanced</b>
<u>Word Attack:</u>	The knowledge of and application of sound codes in order to pronounce unknown words	45

>75% Taking action to increase brain skills is **a preference** based upon personal goals.

>51-75% Taking action to increase brain skills is **a priority** based upon personal goals.

>25-50% Taking action to increase brain skills is **a critical need** to overcome definite weakness, alter mental abilities and allow its capabilities to grow.

<25% Taking action to increase brain skills is **a crisis intervention** to not only improve limited capabilities but make higher levels of skill an attainable option.

### Percentile Rank

Student's relative ranking out of a possible score of 100. Student score is compared to a normed group of their same-age peers. If a student scored 45 percentile, 45 students out of 100 on average scored lower. If the score is shown as xx+ (e.g. 88+), that is the highest score possible for that age group. Percentile scores have a potential range of  $\pm$  five points.

### Summary

Cognitive skills are the foundational mental processes that enable learning. A score for each of the core skill groups is presented above. Any weak skills make learning more difficult. Strong skills make learning or work faster and easier. If a student has one or more weak skills, it is possible and important to train those skills to unlock learning potential. The purpose of the Gibson Test is to identify if weak core cognitive skills are an issue that may be impeding a student from achieving their full potential.

### Visual/Auditory Memory Balance

Students receive information by visual and auditory inputs. They must retain or remember that information in immediate awareness in order to learn. If one skill is stronger than the other, students rely upon one input method more so than the other to obtain information. They must compensate for the skill which is weak. It is better to have strong memory in both skill areas. The Working Memory and Long-Term Memory scores indicate overall memory strength. The Visual/Auditory Memory Balance score indicates if the visual and auditory skills are similar or if one is significantly stronger than the other.

# GIBSON TEST OF BRAIN SKILLS REPORT

## Introduction

**The Gibson Test is not intended to diagnose or label the learning capacity of an individual.**

The Gibson Test was designed only to be used as an affordable screening tool to identify whether weak cognitive skills may be present which could be keeping a student from achieving their full potential. More detailed testing may be necessary depending upon need and circumstances. For example, if a medical diagnosis of a learning disability is desired, you must obtain testing from a licensed practitioner.

Results can be affected by various circumstances. It is critical that the date of birth be entered correctly as the results are calculated based upon the age of the student at the time the test was taken. If the age is not correct in the report, please send an email to [smarter@gcstest.com](mailto:smarter@gcstest.com) with the correct date of birth information. Expected cognitive skill abilities change based upon age. If a student was stressed, did not understand the instructions, is not comfortable using a computer mouse, was distracted or the computer did not have satisfactory sound, the results may not accurately reflect the true cognitive skill abilities of that person.

### Beyond IQ

The Gibson Test goes beyond traditional IQ testing. Standard IQ tests can be misleading. Most only report an average or combined score which could hide the presence of one or more weak skills. It is similar to having a great car with a high-performance engine, great aerodynamic design but one flat tire. You need to know how each component is performing to identify what may be causing the lack of performance.

The Gibson Test is a compilation of seven subtests that measure eleven core cognitive skills critical for learning. Nine values are reported in the tables and charts below. It is not an average but a report on each skill area. It goes beyond IQ. This gives you the Power to Know™ if any weak skills may be holding anyone back from achieving their full potential.

## How the test results are organized:

This report has four sections.

- **Section One** provides your test results by Age Equivalent and Percentile (these are defined at the end of Section One).
- **Section Two** provides your test results in graph form
- **Section Three** provides the Performance Rating Scale results which show the comparison and correlation between performance activities and underlying cognitive skills.
- **Section Four** provides a comprehensive explanation of the cognitive skills tested and based on those results how your performance may be affected. Your test results are interspersed within these explanations.

## Overview of what the test results mean:

***The Gibson Test (GT) measures individual cognitive and decoding skills.*** These findings represent current cognitive abilities, not one's potential cognitive abilities - because cognitive skills are not fixed and can be enhanced. However, the current level of these cognitive skills will determine the current ease, speed, and quality of one's learning and performance.

***The purpose of the test results is not to diagnose or label. It is intended to:***

- 1) Indicate relative cognitive skill strengths and weaknesses,
- 2) Understand the reason/cause of a learning problem,
- 3) Compare change in cognitive skills over time,
- 4) Measure the effectiveness of skill intervention,
- 5) Determine the best intervention to bring weaker skills to productive levels,
- 6) Predict performance,
- 7) Guide future life choices.

The online Gibson Test is based upon a clinical test that has been used for over 10 years to serve 15,000 plus students in over 300 clinical settings. It was adapted for online use in 2009. The current results are normed by age using over 6,000 diverse test results. Validity and reliability studies have been completed and adjustments made as appropriate. Unlike many individual ability tests, the GT subtests are explicitly designed to assess a student's abilities on many specific Cattell-Horn-Carroll "cognitive factors," not just a total score or a few factors. Word attack, a learned skill, is also included as a subtest because this measurement is very helpful to identify causes of weak reading performance.

The Gibson Test is only intended to be used as a screening tool to identify if weak core cognitive skills are an issue that may be impeding a student from achieving their full potential. The current norming is more than sufficient to accomplish that objective. Over time, the tables may be updated as more test results are accumulated. If pre and post training testing is done, please make sure to compare test reports using the current tables. Do not compare a post test result to an earlier printed version. Always compare to the results shown when logged into the system. The last update was made on 06/13/2011.

# SECTION ONE

Name: Student, Example  
Test date: 09/10/13

		09/10/13, Age 10.68 years			
Skills Tests	Description	Raw Score	Total Possible	Age Equivalent	Percentile Rank
<u>Processing Speed:</u>	The ability to perform cognitive tasks, particularly when measured under pressure to maintain focused attention	31	50	11.8	63
<u>Working Memory:</u>	The ability to hold information in immediate awareness while performing a mental operation on it	13	18	11.1	54
<u>Long-Term Memory:</u>	The ability to store information and fluently retrieve it later in the process of thinking	5	14	8	18
<u>Visual Processing:</u>	The ability to perceive, analyze, synthesize visual patterns, including the ability to store and recall visual images	12	56	5.4	3
<u>Auditory Processing:</u>	Phonemic Awareness, the ability to analyze and manipulate speech sounds; crucial underlying skill for reading and spelling	14	26	8.5	28
<u>Logic &amp; Reasoning:</u>	The ability to reason, form concepts, and solve problems using unfamiliar information or novel procedures	5	20	7	22
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<u>Word Attack:</u>	The knowledge of and application of sound codes in order to pronounce unknown words	16	21	10.2	45

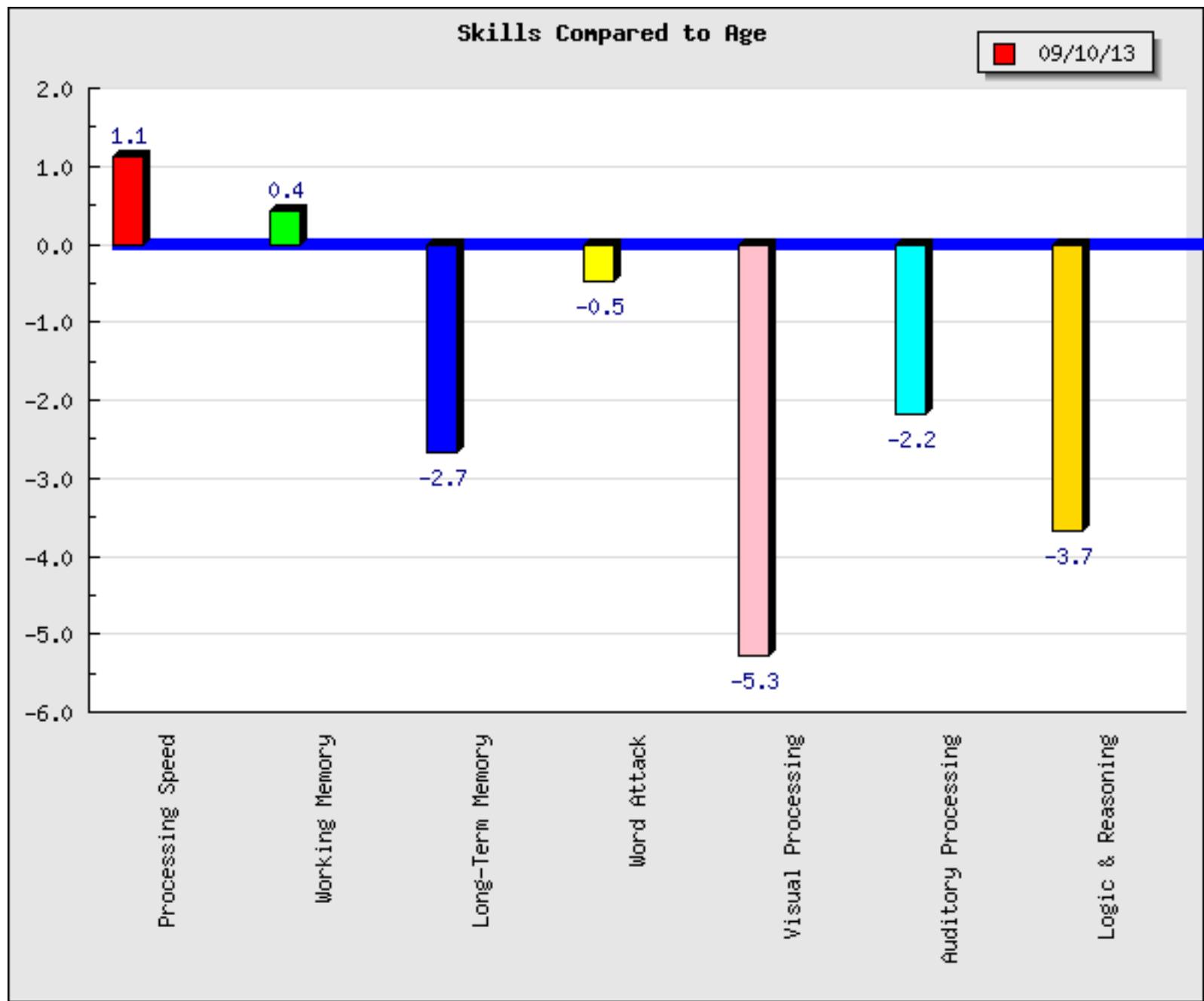
## Definitions

**Age equivalent:** the student's score is stated based upon the average score in the age range of 6-18; if the subject is above 16, no age equivalent is given.

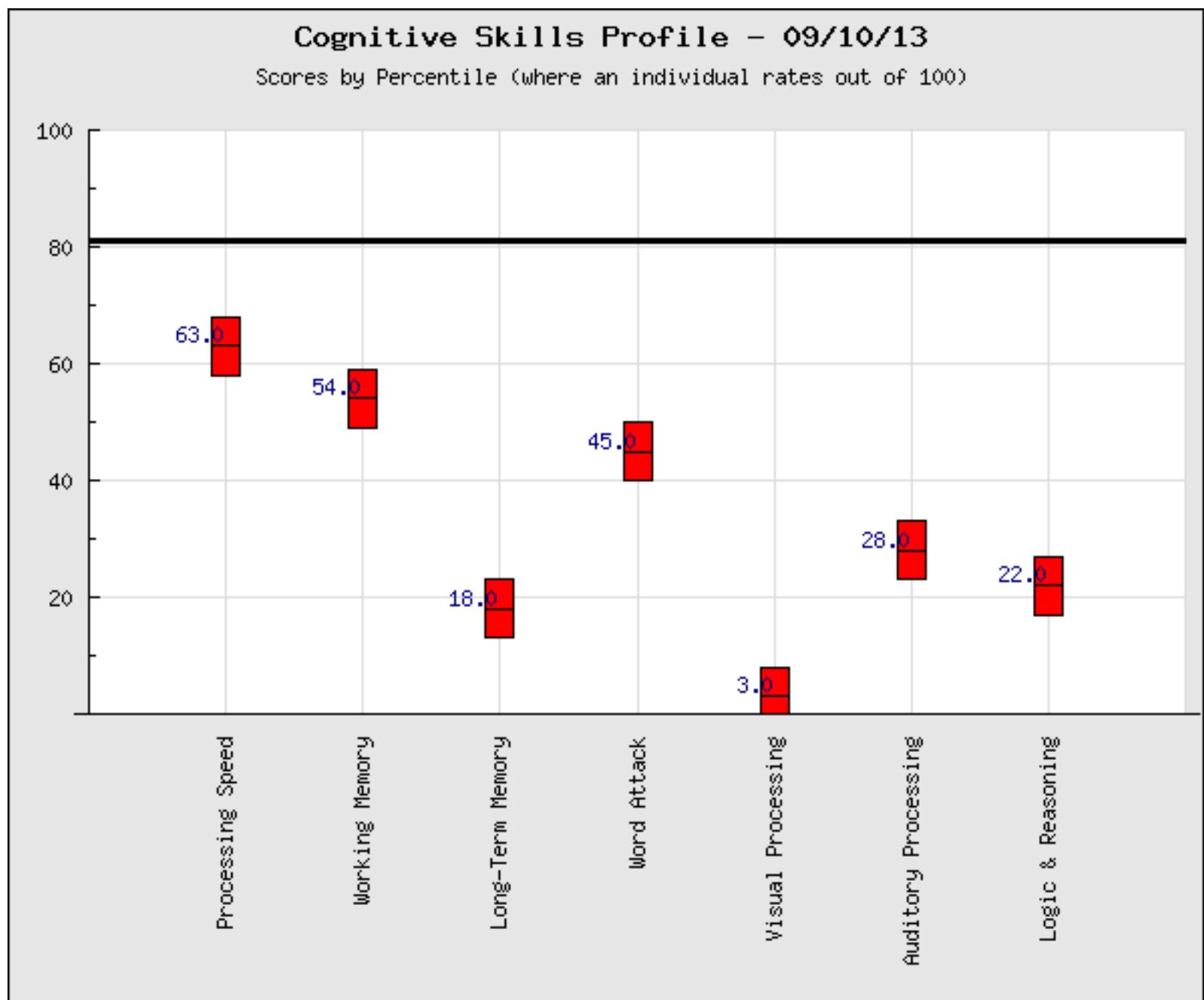
**Percentile:** compared to 100 subjects; percentile indicates the percent of subjects that are equal to or below. For example, a 45 percentile would mean that out of 100 subjects, 45 scored at or below this subject.

## SECTION TWO

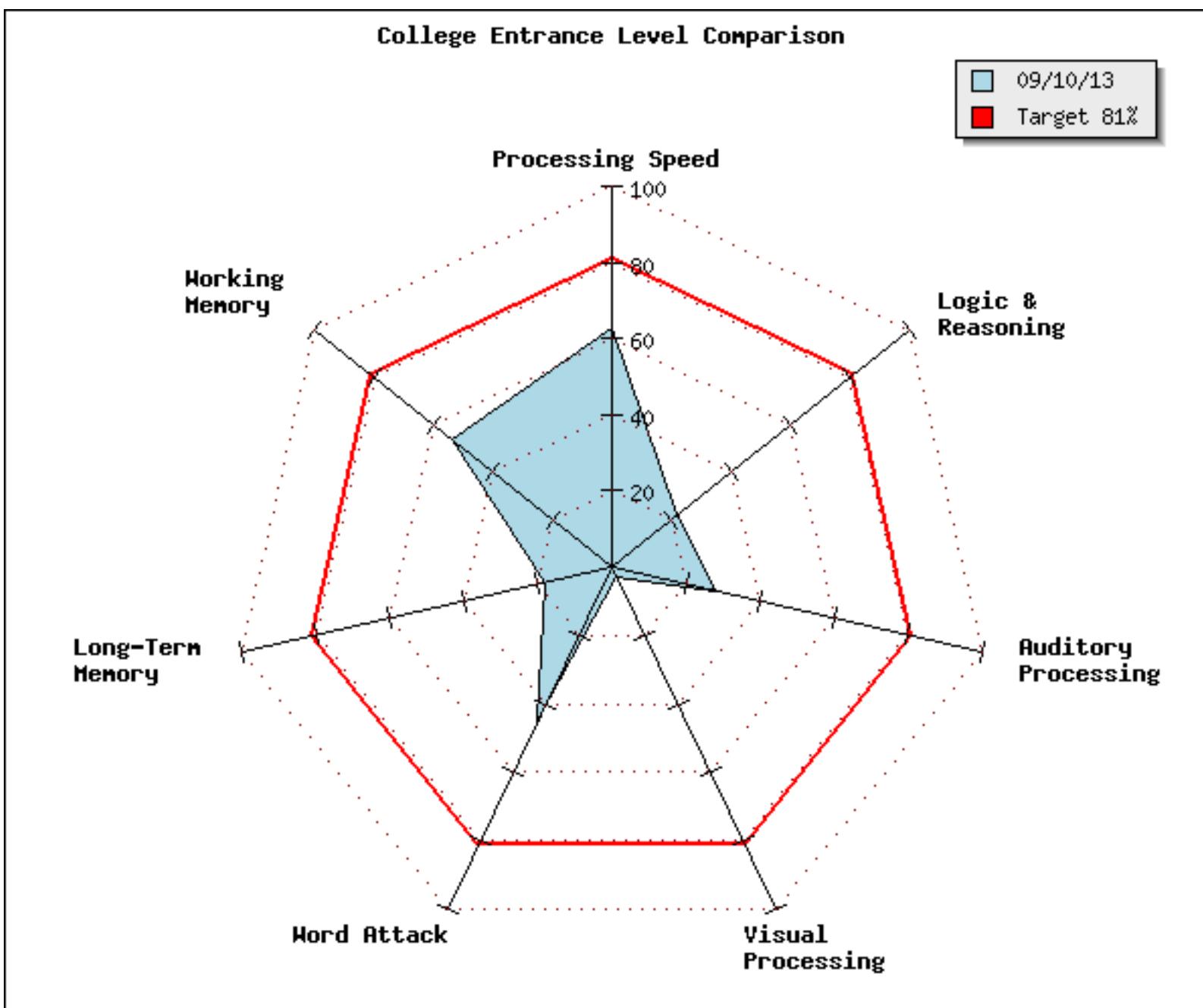
The Age Equivalency graph below compares the student's scores as they relate for others of the same age. This graph is only valid up to age 18. Bars above the blue age line show skills that are more advanced than the norm for the student's age, whereas below the blue age line show skills weakness as compared to the student's norm for their current age. For example, if a student is age 12 and their score is equivalent to the norm for an 18-year old student, the graph will show six years above the 12 year-old norm. If the score is equivalent to the norm for a 10-year old student, the graph will show two years below the line. This graph is only comparing the student's scores with the average for students of other ages up to age 18.



The Percentile Graph below shows how your skills rank as compared to others your age on average. Given 100 individuals your age that represent a diversified norm group, if you have a skill score of 60, this means that there are 40 individuals your age that are stronger in that skill set than you and 60 that are weaker than you in that particular skill set. The 81 percentile line is shown to represent the average percentile of college-bound students. If you plan to attend college, this is the minimum target percentile you should strive to obtain at any age.



The Radar Graph below shows a comparison of your current skill set (in blue) to the average skill set of those entering college (the red line).



## SECTION THREE

The Performance Rating Scale was not completed.

To take the performance survey, please login and click on the survey link. Once completed, the survey results will appear in this report.

## SECTION FOUR

Professionals understand that the brain's functions are very complex, but most agree that the 70 known mental skills can be grouped into 7 major types of skills. These skills are the foundation to fast, efficient learning and performance.

The Gibson Test includes subtests of the six major skill groups and a rating survey for Attention. The six skill group subtests cover Processing Speed, Working Memory, Long-Term Memory, Visual Processing, Auditory Processing, and Logic & Reasoning. The Attention skill is measured via a survey rather than a subtest because the survey method is more accurate than any one test when dealing with Attention issues.

It's important to understand that cognitive skills are not fixed but can be modified with mentally challenging activities and/or appropriate targeted intervention. Included in each skill explanation below is data from LearningRx as to the average gains achieved after intense training of weak cognitive skills.

Below are explanations, affects if weak (how a skill weakness affects learning), past history of average gains made by intervention, and your subtest scores for the cognitive skills tested.

## Skill Type--Attention:

The Performance Rating Scale has not been completed.

## Skill Type--Processing Speed:

Your Processing Speed percentile score of **63%** is in the **high average** range. This score is better than **63%** of all persons taking this test in your age category.

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.

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (18.1), Post-Intervention (47.2), and Net Gain (29.1) in Processing Speed with 12 weeks of intense targeted brain training. Significant gains are possible for most students if they diligently work on the brain training exercises.

## Skill Type--Working Memory:

Your Working Memory percentile score of **54%** is in the **average** range. This score is better than **54%** of all persons taking this test in your age category.

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; difficulty completing problem solving operations; needing instructions repeated. It may seem that students "just don't get it."

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (18.6), Post-Intervention (52.4), and Net Gain (33.8) in Working Memory with 12 weeks of intense targeted brain training.

## Skill Type--Long-Term Memory:

Your Long-Term Memory percentile score of **18%** is in the **low** range. This score is better than **18%** of all persons taking this test in your age category.

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 word definitions; difficulty recalling names and facts; frequent use of general descriptors/words in written language rather than specific; "It's on the tip of my tongue but I can't quite remember it"

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (26), Post-Intervention (52.7), and Net Gain (26.7) in Long-Term Memory with 12 weeks of intense targeted brain training.

## Visual / Auditory Memory Balance:

Your Visual Memory appears to be **about equal to** your Auditory Memory.

Students receive information by visual and auditory inputs. They must retain or remember that information in immediate awareness in order to learn. If one skill is stronger than the other, students rely upon one input method more so than the other to obtain information. They must compensate for the skill which is weak. Someone with strong auditory memory skills may be referred to as an auditory learner for example, or if visual memory is stronger they may be referred to as a visual learner.

It is better to have strong memory in both skill areas. The Working Memory and Long-Term Memory scores indicate overall memory strength, including a direct relationship to the strength of visual and auditory memory. The Visual/Auditory Memory Balance score indicates if the visual and auditory skills are similar in relative strength or if one is significantly stronger than the other.

## Skill Type--Visual Processing:

Your Visual Processing percentile score of **3%** is in the **very low** range. This score is better than **3%** of all persons taking this test in your age category.

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.

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (23.8), Post-Intervention (43.1), and Net Gain (19.3) in Visual Processing with 12 weeks of intense targeted brain training.

## **Skill Type--Auditory Processing (phonological awareness):**

Your Auditory Processing percentile score of **28%** is in the **low average** range. This score is better than **28%** of all persons taking this test in your age category.

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.

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (17.1), Post-Intervention (43.7), and Net Gain (26.2) in Auditory Processing with 12 weeks of intense targeted brain training.

## **Skill Type--Logic and Reasoning:**

Your Logical & Reasoning percentile score of **22%** is in the **low** range. This score is better than **22%** of all persons taking this test in your age category.

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.

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (14.6), Post-Intervention (53.7), and Net Gain (39.2) in Logic and Reasoning with 12 weeks of intense targeted brain training.

## **Skill Type--Word Attack:**

Your Word Attack percentile score of **45%** is in the **average** range. This score is better than **45%** of all persons taking this test in your age category.

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.

**The following average gains (in percentile) have been achieved in the clinical program:** Average Pre-Intervention (16.3), Post-Intervention (48.9), and Net Gain (32.6) in Work Attack with 24 or less weeks of intense targeted brain training.