

# Behavior Rating Inventory of Executive Function -

Adult Version™

# BRIEF-A™

## Interpretive Report

Developed by

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### Client Information

**Client Name :** Sample Client

**Client ID :** Sample Client

**Gender :** Male

**Age :** 20

**Birthdate :** 08/02/1986

**Test Date :** 09/25/2006

**Test Form :** BRIEF-A Informant Report Form

**Rater Name :** John Doe

**Relationship to Client :** Friend

**Test Description :** Website Sample

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## Introduction

The Behavior Rating Inventory of Executive Function—Adult Version™ (BRIEF-A™) is a standardized rating scale developed to provide a window into everyday behaviors associated with specific domains of the executive functions in adults ages 18 to 90 years. The BRIEF-A consists of equivalent Self-Report and Informant Report Forms, each having 75 items in nine non-overlapping scales, as well as two summary index scales and a scale reflecting overall functioning (Global Executive Composite [GEC]) based on theoretical and statistical considerations. The Behavioral Regulation Index (BRI) is composed of four scales: Inhibit, Shift, Emotional Control, and Self-Monitor. The Metacognition Index (MI) is composed of five scales: Initiate, Working Memory, Plan/Organize, Task Monitor, and Organization of Materials. There also are three validity scales: Negativity, Infrequency, and Inconsistency. The BRIEF-A can serve as a screening tool for possible executive dysfunction, as an index of the ecological validity of laboratory or clinic-based assessments, and as an indicator of individuals' awareness of their own self-regulatory functioning, particularly when both Self-Report and Informant Report Forms are used. The Informant Report Form provides information about an individual's functioning in the everyday environment based on an informant's observations. The Self-Report Form provides an understanding of the individual's perspective with respect to their own difficulties in self-regulation - information that can be critical to the development of interventions. Explicitly assessing, valuing, and providing feedback about an individual's viewpoint can facilitate rapport and the development of a collaborative working relationship that can, in turn, serve as a starting point for intervention. Determining the degree to which an individual is aware of their executive dysfunction can be helpful in gauging the amount of support he or she will require. For those who possess a high degree of awareness, as well as motivation, the intervention process can be facilitated. For those with limited awareness, a greater degree of external support may be required. Although response patterns on self-report behavior rating scales such as the BRIEF-A can range from strong agreement with other informants to complete denial of any problems, rich clinical information can be gleaned from directly assessing self-reported opinions.

The clinical information gathered from an in-depth profile analysis on the BRIEF-A is best understood within the context of a full assessment that includes (a) a detailed history of the individual; (b) performance-based testing; (c) reports on the BRIEF-A from informants; and (d) observations of the individual's behavior. By examining converging evidence, the clinician can confidently arrive at a valid diagnosis and, most importantly, an effective treatment plan. A thorough understanding of the BRIEF-A, including its development and its psychometric properties, is a prerequisite to interpretation. As with any clinical method or procedure, appropriate training and clinical supervision is necessary to ensure competent use of the BRIEF-A. This report is confidential and intended for use by qualified professionals only. This report should not be released to the individual being evaluated or to informants. If a summary of the results specifically written for the rated individual and/or his or her informants is appropriate and desired, the BRIEF-A Feedback Report can be generated and given to the interested parties, preferably in the context of verbal feedback and a review of the Feedback Report by the clinician.

*T* scores ( $M = 50$ ,  $SD = 10$ ) are used to interpret the individual's level of executive functioning on the BRIEF-A. These scores are transformations of the raw scale scores. *T* scores provide information about an individual's scores relative to the scores of respondents in the

standardization sample. Percentiles represent the percentage of adults in the standardization sample who fall below a given raw score. Traditionally, *T* scores at or above 65 are considered clinically significant. In the process of interpreting the BRIEF-A, review of individual items within each scale can yield useful information for understanding the specific nature of the individual's elevated score on any given clinical scale. Although certain items may have considerable clinical relevance for the individual being evaluated, placing too much interpretive significance on individual items is not recommended due to lower reliability of individual items relative to the scales and indexes.

## Overview

John Doe completed the Informant Report Form of the Behavior Rating Inventory of Executive Function-Adult Version (BRIEF-A) regarding Mr. Client on 09/25/2006. There are no missing item responses in the protocol. Ratings of Mr. Client's self-regulation do not appear overly negative. Items were completed in a reasonable fashion, suggesting that the respondent did not respond to items in a haphazard or extreme manner. Responses are reasonably consistent. In the context of these validity considerations, ratings of Mr. Client's everyday executive function suggest some areas of concern. The overall index, the Global Executive Composite (*GEC*), was elevated (*GEC T* = 65, %ile = 90). The Behavioral Regulation Index (*BRI*) was within normal limits (*BRI T* = 56, %ile = 73) and the Metacognition Index (*MI*) was elevated (*MI T* = 71, %ile = 97). Within these summary indicators, all of the individual scales are valid. One or more of the individual BRIEF-A scales were elevated, suggesting that Mr. Client is described as having difficulty with some aspects of executive function. Concerns are noted with his ability to sustain working memory, plan and organize problem-solving approaches, and attend to task-oriented output. Mr. Client's ability to inhibit impulsive responses, adjust to changes in routine or task demands, modulate emotions, monitor social behavior, initiate problem solving or activity, and organize environment and materials is not described as problematic.

The overall profile suggests that Mr. Client experiences difficulties with working memory and with planning and organization that interfere with his ability to complete everyday tasks at home or at work. Individuals with similar elevations on the Working Memory scale, and without significant elevations in the Behavioral Regulation Index scales, are often described as inattentive. Without appropriate working memory, the ability to sustain focus for adequate lengths of time may be compromised for these individuals. Further, individuals with similar profiles may have secondary difficulty developing and organizing a plan of approach for future-oriented problem solving. This profile is often seen in individuals with inattentive-type attentional disorders.

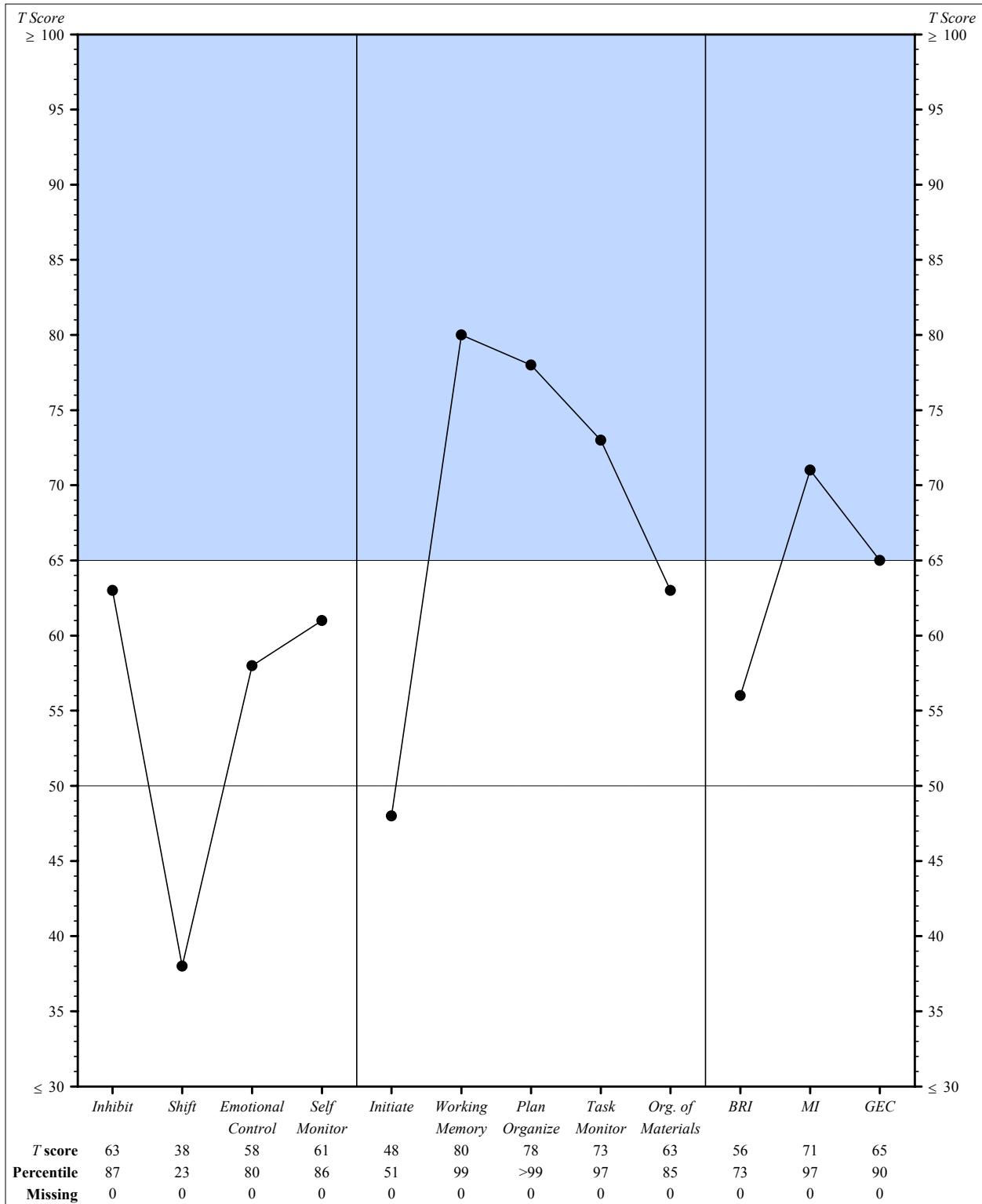
### BRIEF-A™ Score Summary Table

| Scale/Index                                     | Raw Score | T Score | Percentile | 90% CI  |
|---|-----------|---------|------------|---------|
| <i>Inhibit</i>                                  | 16        | 63      | 87         | 56 - 70 |
| <i>Shift</i>                                    | 6         | 38      | 23         | 30 - 46 |
| <i>Emotional Control</i>                        | 20        | 58      | 80         | 54 - 62 |
| <i>Self-Monitor</i>                             | 13        | 61      | 86         | 54 - 68 |
| <b><i>Behavioral Regulation Index (BRI)</i></b> | 55        | 56      | 73         | 52 - 60 |
| <i>Initiate</i>                                 | 12        | 48      | 51         | 41 - 55 |
| <i>Working Memory</i>                           | 21        | 80      | 99         | 74 - 86 |
| <i>Plan/Organize</i>                            | 28        | 78      | >99        | 72 - 84 |
| <i>Task Monitor</i>                             | 15        | 73      | 97         | 67 - 79 |
| <i>Organization of Materials</i>                | 19        | 63      | 85         | 57 - 69 |
| <b><i>Metacognition Index (MI)</i></b>          | 95        | 71      | 97         | 68 - 74 |
| <b><i>Global Executive Composite (GEC)</i></b>  | 150       | 65      | 90         | 62 - 68 |

| Validity Scale       | Raw Score | Cumulative % | Protocol Classification |
|----------------------|-----------|--------------|-------------------------|
| <i>Negativity</i>    | 2         | 0 - 98.5     | Acceptable              |
| <i>Infrequency</i>   | 0         | 0 - 93.3     | Acceptable              |
| <i>Inconsistency</i> | 2         | 0 - 98.8     | Acceptable              |

Note: Age-specific norms have been used to generate this profile.  
 For additional normative information, refer to the Appendixes in the BRIEF-A™ Professional Manual.

### Profile of BRIEF-A™ T Scores



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 For additional normative information, refer to the Appendixes in the BRIEF-A™ Professional Manual.

## Validity

Before examining the BRIEF-A profile, it is essential to carefully consider the validity of the data provided. The inherent nature of rating scales brings potential bias to the scores. The first step is to examine the protocol for missing data. With a valid number of responses, the Negativity, Infrequency, and Inconsistency scales of the BRIEF-A provide additional validity information.

### Missing Items

The respondent completed 75 of a possible 75 BRIEF-A items. For reference purposes, the summary table for each scale indicates the actual rating for each item. There are no missing responses in the protocol, providing a complete data set for interpretation.

### Negativity

The Negativity scale measures the extent to which the respondent answered selected BRIEF-A items in an unusually negative manner. Items composing the Negativity scale are shown in the summary table below. A higher raw score on this scale indicates a greater degree of negativity, with less than 1% of respondents endorsing six or more of the items as *Often* in the clinical sample. *T* scores are not generated for this scale. The Negativity score of 2 is within the acceptable range, suggesting that the respondent's view of Mr. Client is not overly negative and that the BRIEF-A protocol is likely to be valid.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 1    | [Item text removed from this report] | Sometimes     |
| 8    |                                      | Never         |
| 19   |                                      | Sometimes     |
| 21   |                                      | Often         |
| 22   |                                      | Never         |
| 23   |                                      | Sometimes     |
| 29   |                                      | Sometimes     |
| 36   |                                      | Sometimes     |
| 39   |                                      | Often         |
| 40   |                                      | Sometimes     |

### Infrequency

Scores on the Infrequency scale indicate the extent to which the respondent endorsed items in an atypical fashion relative to the combined normative and clinical samples. For example, marking *Often* to Item 10 ("I forget my name") is highly unusual, even for adults with severe cognitive impairment. Items composing the Infrequency scale are shown in the summary table below. Because unusual responding on the five Infrequency items is not always indicated by the same extreme response (that is, *Never* or *Often*), the infrequent response also is shown for each item. *T* scores are not generated for the Infrequency scale. Instead, the number of items endorsed in an atypical, or an infrequent, manner is summed for a total score (i.e., the Infrequency score) and

classified as “Acceptable” or as “Infrequent.” Less than 1% of respondents in the combined mixed clinical/healthy adult and normative samples had Infrequency scores of 3 or higher. The Infrequency score of 0 is within the Acceptable range, suggesting that there is no clear evidence of atypical responding.

| Item | Content                              | Response (Infrequent Response) |
|------|--------------------------------------|--------------------------------|
| 10   | [Item text removed from this report] | Sometimes (Often)              |
| 27   |                                      | Sometimes (Never)              |
| 38   |                                      | Sometimes (Often)              |
| 48   |                                      | Sometimes (Never)              |
| 59   |                                      | Sometimes (Never)              |

### Inconsistency

Scores on the Inconsistency scale indicate the extent to which similar BRIEF-A items were endorsed in an inconsistent manner relative to the combined normative and mixed clinical/healthy adult samples. For example, a high Inconsistency score might be associated with marking *Never* in response to Item 33 (“Overreacts to small problems”) and simultaneously marking *Often* in response to Item 72 (“Gets upset quickly or easily over little things”). Item pairs composing the Inconsistency scale are shown in the summary table below. *T* scores are not generated for the Inconsistency scale. Instead, the raw difference scores for the 10 paired items are summed and the total difference score (i.e., the Inconsistency score) is used to classify the protocol as either “Acceptable” or “Inconsistent.” Less than 1% of respondents in the combined mixed clinical/healthy adult and normative samples had Inconsistency scores of 8 or higher. The Inconsistency score of 2 is within the Acceptable range, suggesting that responses were reasonably consistent.

| Item 1 | Content Item 1                       | Score 1 | Item 2 | Content Item 2                       | Score 2 | Diff. |
|--------|--------------------------------------|---------|--------|--------------------------------------|---------|-------|
| 2      | [Item text removed from this report] | 3       | 41     | [Item text removed from this report] | 2       | 1     |
| 25     |                                      | 2       | 49     |                                      | 1       | 1     |
| 28     |                                      | 2       | 42     |                                      | 2       | 0     |
| 33     |                                      | 2       | 72     |                                      | 2       | 0     |
| 34     |                                      | 3       | 63     |                                      | 3       | 0     |
| 44     |                                      | 1       | 61     |                                      | 1       | 0     |
| 46     |                                      | 2       | 56     |                                      | 2       | 0     |
| 52     |                                      | 2       | 75     |                                      | 2       | 0     |
| 60     |                                      | 3       | 74     |                                      | 3       | 0     |
| 64     |                                      | 2       | 70     |                                      | 2       | 0     |

## Composite and Summary Indexes

### Global Executive Composite

The Global Executive Composite (*GEC*) is an overarching summary score that incorporates all of the BRIEF-A clinical scales. Although review of the Behavioral Regulation Index (*BRI*),

Metacognition Index (*MI*), and individual scale scores is strongly recommended for all BRIEF-A profiles, the *GEC* can sometimes be useful as a summary measure. In this case, the two summary indexes are substantially different, with the Behavioral Regulation Index ( $T = 56$ , %ile = 73) and Metacognition Index ( $T = 71$ , %ile = 97)  $T$  scores separated by 15 points. Differences of this magnitude occurred less than 10% of the time in the normative sample. Thus, the *GEC* may not adequately reflect the overall profile. With this in mind, Mr. Client's  $T$  score of 65 (%ile = 90) on the *GEC* is elevated as compared to the scores of his peers, suggesting significant perceived difficulty in one or more areas of executive function.

## **Behavioral Regulation and Metacognition Indexes**

The Behavioral Regulation Index (*BRI*) captures the ability to maintain appropriate regulatory control of one's own behavior and emotional responses. This includes appropriate inhibition of thoughts and actions, flexibility in shifting problem-solving set, modulation of emotional response, and monitoring of one's actions. It is composed of the Inhibit, Shift, Emotional Control, and Self-Monitor scales. Appropriate behavioral regulation is likely to be a precursor to appropriate metacognitive problem solving. It enables the metacognitive processes to successfully guide active and systematic problem solving, as well as more generally supporting appropriate self-regulation.

The Metacognition Index (*MI*) reflects the individual's ability to initiate activity and generate problem-solving ideas, to sustain working memory, to plan and organize problem-solving approaches, to monitor success and failure in problem solving, and to organize one's materials and environment. It is composed of the Initiate, Working Memory, Plan/Organize, Task Monitor, and Organization of Materials scales.

Examination of the indexes reveals that the Metacognition Index is elevated ( $T = 71$ , %ile = 97) and the Behavioral Regulation Index is within the average range ( $T = 56$ , %ile = 73). This suggests that Mr. Client demonstrates difficulties with initiation, working memory, planning, organizing, and/or the ability to monitor task-oriented problem solving, but also suggests relatively preserved ability to inhibit impulses, modulate emotions, shift problem-solving set, and monitor his behavior.

## **Clinical Scales**

The BRIEF-A clinical scales measure the extent to which the respondent reports problems with different behaviors related to the nine domains of executive functioning captured within the BRIEF-A. The following sections describe the scores obtained on the clinical scales and the suggested interpretation for each individual clinical scale.

### **Inhibit**

The Inhibit scale assesses inhibitory control and impulsivity. This can be described as the ability to resist impulses and the ability to stop one's own behavior at the appropriate time. Mr. Client's  $T$  score of 63 (%ile = 87) on this scale is within the non-elevated range as compared to his peers. This suggests that he is viewed as typically able to resist impulses and consider consequences before acting, and generally as "in control" of himself.



| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 5    | [Item text removed from this report] | Sometimes     |
| 16   |                                      | Sometimes     |
| 29   |                                      | Sometimes     |
| 36   |                                      | Sometimes     |
| 43   |                                      | Sometimes     |
| 55   |                                      | Never         |
| 58   |                                      | Often         |
| 73   |                                      | Sometimes     |

## Shift

The Shift scale assesses the ability to move with ease from one situation, activity, or aspect of a problem to another as the circumstances demand. Key aspects of shifting include the ability to (a) make transitions; (b) tolerate change; (c) problem-solve flexibly; (d) switch or alternate attention; and (e) change focus from one mindset or topic to another. Mr. Client's score on the Shift scale is within the average range as compared to like-aged peers ( $T = 38$ , %ile = 23), suggesting typical behavioral and/or cognitive flexibility.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 8    | [Item text removed from this report] | Never         |
| 22   |                                      | Never         |
| 32   |                                      | Never         |
| 44   |                                      | Never         |
| 61   |                                      | Never         |
| 67   |                                      | Never         |

## Emotional Control

The Emotional Control scale measures the impact of executive function problems on emotional expression and assesses an individual's ability to modulate or control his or her emotional responses. Mr. Client's score on the Emotional Control scale is within the average range as compared to like-aged peers ( $T = 58$ , %ile = 80). This suggests that Mr. Client is viewed as adequately able to modulate or regulate emotions overall. He is generally described as reacting to events appropriately; without outbursts, sudden and/or frequent mood changes, or excessive periods of emotional upset.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 1    | [Item text removed from this report] | Sometimes     |
| 12   |                                      | Sometimes     |
| 19   |                                      | Sometimes     |
| 28   |                                      | Sometimes     |
| 33   |                                      | Sometimes     |
| 42   |                                      | Sometimes     |
| 51   |                                      | Sometimes     |
| 57   |                                      | Sometimes     |
| 69   |                                      | Sometimes     |

|    |  |           |
|----|--|-----------|
| 72 |  | Sometimes |
|----|--|-----------|

## Self-Monitor

The Self-Monitor scale assesses aspects of social or interpersonal awareness. It captures the degree to which an individual perceives himself as aware of the effect that his behavior has on others. Mr. Client's score on the Monitor scale is not elevated, suggesting no perceived difficulty with monitoring the impact of his own behavior in social settings ( $T = 61$ , %ile = 86).

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 13   | [Item text removed from this report] | Often         |
| 23   |                                      | Sometimes     |
| 37   |                                      | Sometimes     |
| 50   |                                      | Sometimes     |
| 64   |                                      | Sometimes     |
| 70   |                                      | Sometimes     |

## Initiate

The Initiate scale reflects an individual's ability to begin a task or activity and to independently generate ideas, responses, or problem-solving strategies. Mr. Client's score on the Initiate scale is within the average range as compared to like-aged peers ( $T = 48$ , %ile = 51). This suggests that he is generally able to begin, start, or "get going" on tasks, activities, and problem-solving approaches appropriately.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 6    | [Item text removed from this report] | Sometimes     |
| 14   |                                      | Sometimes     |
| 20   |                                      | Sometimes     |
| 25   |                                      | Sometimes     |
| 45   |                                      | Never         |
| 49   |                                      | Never         |
| 53   |                                      | Never         |
| 62   |                                      | Never         |

## Working Memory

The Working Memory scale measures "on-line representational memory;" that is, the capacity to hold information in mind for the purpose of completing a task, encoding information, or generating goals, plans, and sequential steps to achieving goals. Working memory is essential to carry out multistep activities, complete mental manipulations such as mental arithmetic, and follow complex instructions. Mr. Client's score on the Working Memory scale is elevated as compared to like-aged peers ( $T = 80$ , %ile = 99). This suggests that Mr. Client is described as having substantial difficulty holding an appropriate amount of information in mind or in "active memory" for further processing, encoding, and/or mental manipulation. Further, elevations on this scale suggest difficulties sustaining working memory, which has a negative impact on the ability to remain attentive and focused for appropriate lengths of time. Individuals with fragile

or limited working memory may have trouble remembering things (e.g., phone numbers, instructions) even for a few seconds, keeping track of what they are doing as they work, or may forget what they are supposed to retrieve when sent on an errand. Such individuals may miss information that exceeds their working memory capacity, such as instructions for an assignment.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 4    | [Item text removed from this report] | Often         |
| 11   |                                      | Often         |
| 17   |                                      | Often         |
| 26   |                                      | Often         |
| 35   |                                      | Often         |
| 46   |                                      | Sometimes     |
| 56   |                                      | Sometimes     |
| 68   |                                      | Sometimes     |

### Plan/Organize

The Plan/Organize scale measures an individual's ability to manage current and future-oriented task demands. The scale consists of two components: plan and organize. The Plan component captures the ability to anticipate future events, to set goals, and to develop appropriate sequential steps ahead of time in order to carry out a task or activity. The Organize component refers to the ability to bring order to information and to appreciate main ideas or key concepts when learning or communicating information. Mr. Client's score on the Plan/Organize scale is elevated as compared to like-aged peers ( $T = 78$ , %ile = >99). This suggests that Mr. Client is perceived as having difficulty with the planning and the organization of information, which has a negative impact on his approach to problem solving.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 9    | [Item text removed from this report] | Often         |
| 15   |                                      | Often         |
| 21   |                                      | Often         |
| 34   |                                      | Often         |
| 39   |                                      | Often         |
| 47   |                                      | Often         |
| 54   |                                      | Often         |
| 63   |                                      | Often         |
| 66   |                                      | Sometimes     |
| 71   |                                      | Sometimes     |

### Task Monitor

The Task Monitor scale reflects the ability to keep track of one's problem-solving success or failure, and to identify and correct mistakes during behaviors. Mr. Client's score on the Task Monitor scale is elevated compared to like-aged peers ( $T = 73$ , %ile = 97). This suggests that Mr. Client is viewed as having difficulties keeping track of projects or as likely to make careless mistakes.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 2    | [Item text removed from this report] | Often         |
| 18   |                                      | Often         |
| 24   |                                      | Often         |
| 41   |                                      | Sometimes     |
| 52   |                                      | Sometimes     |
| 75   |                                      | Sometimes     |

## Organization of Materials

The Organization of Materials scale measures orderliness of work, living, and storage spaces (e.g., desks, rooms). Mr. Client's score on the Organization of Materials scale is within the average range relative to like-aged peers ( $T = 63$ , %ile = 85). Mr. Client is described as being able to keep materials and belongings reasonably well-organized, as having his materials readily available for projects or assignments, and as being able to find his belongings when needed.

| Item | Content                              | Item Response |
|------|--------------------------------------|---------------|
| 3    | [Item text removed from this report] | Sometimes     |
| 7    |                                      | Sometimes     |
| 30   |                                      | Sometimes     |
| 31   |                                      | Sometimes     |
| 40   |                                      | Sometimes     |
| 60   |                                      | Often         |
| 65   |                                      | Often         |
| 74   |                                      | Often         |

**End of Report**