Generated by PARiConnect

by Peter K. Isquith, PhD, Gerard A. Gioia, PhD, and PAR Staff

Client name :	Sample Client
Client ID :	123
Gender :	Male
Age :	8
Test date :	04/30/2013
Grade :	3 rd.
Test form :	Parent Form
Rater name :	-Not Specified-
Relationship to client:	Parent

This report is intended for use by qualified professionals only and is not to be shared with the examinee or any other unqualified persons.

PAR • 16204 N. Florida Ave. • Lutz, FL 33549 • 1.800.331.8378 • www.parinc.com

Version: 3.10.041

The BRIEF was developed to provide a window into the everyday behavior associated with specific domains of the executive functions. The BRIEF can serve as a screening tool for possible executive dysfunction. The clinical information gathered from an in-depth profile analysis is best understood, however, within the context of a full assessment that includes (a) a detailed history of the child and the family, (b) performance-based testing, and (c) observations of the child's behavior. A thorough understanding of the BRIEF, 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.

This report is confidential and intended for use by qualified professionals only. This report should not be released to the parents or teachers of the child being evaluated. If a summary of the results specifically written for parents and teachers is desired, the BRIEF Feedback Report can be generated and given to the interested parents and/or teachers.

T scores are used to interpret the child's level of executive functioning as reported by parents and/or teachers on the BRIEF rating forms. These scores are linear transformations of the raw scale scores (M = 50, SD = 10). *T* scores provide information about an individual's scores relative to the scores of respondents in the standardization sample. Percentiles, which are also presented within the BRIEF-SP, represent the percentage of children in the standardization sample who fall below a given raw score.

In the process of interpreting the BRIEF, review of individual items within each scale can yield useful information for understanding the specific nature of the child's elevated score on any given clinical scale. In addition, certain items may be particularly relevant to specific clinical groups. Placing too much interpretive significance on individual items, however, is not recommended due to lower reliability of individual items relative to the scales and indexes.

Overview

Sample Client's parent completed the Parent form of the Behavior Rating Inventory of Executive Function (BRIEF) on 04/30/2013. There are no missing item responses in the protocol. Responses are reasonably consistent. The respondent's ratings of Sample Client do not appear overly negative. In the context of these validity considerations, ratings of Sample Client's executive function exhibited in everyday behavior reveal some areas of concern.

The overall index, the Global Executive Composite (GEC), was elevated (GEC *T* = 78, %ile = 98). Both the Behavioral Regulation (BRI) and the Metacognition (MI) Indexes were elevated (BRI *T* = 71, %ile = 96 and MI *T* = 79, %ile = ≥ 99).

Within these summary indicators, all of the individual scales are valid. One or more of the individual BRIEF scales were elevated, suggesting that Sample Client exhibits difficulty with some aspects of executive function. Concerns are noted with his ability to inhibit impulsive responses (Inhibit *T* = 73, %ile = 97), modulate emotions (Emotional Control *T* = 73, %ile = 98), initiate problem solving or activity (Initiate *T* = 75, %ile = 98), sustain working memory (Working Memory *T* = 72, %ile = 97), plan and organize problem solving approaches (Plan/Organize *T* = 82, %ile = ≥ 99), organize his environment and materials (Organization of Materials *T* = 71, %ile = ≥ 99), and monitor his own behavior (Monitor *T* = 69, %ile = 98). Sample Client's ability to adjust to changes in routine or task demands (Shift *T* = 53, %ile = 74) is not described as problematic by the respondent.

Current models of self-regulation suggest that behavioral regulation, particularly inhibitory control, underlies most other areas of executive function. Essentially, one needs to be appropriately inhibited, flexible, and under emotional control for efficient, systematic, and organized problem solving to take place. Sample Client's elevated scores on the Inhibit scale, and the Behavioral Regulation and the Metacognition Indexes, suggest that Sample Client has poor inhibitory control and/or suggest that more global behavioral dysregulation is having a negative effect on active metacognitive problem solving. The elevated Behavioral Regulation Index score, however, does not negate the meaningfulness of the elevated Metacognition Index

score. Instead, one must consider the influence of the underlying behavioral regulation issues while simultaneously considering the unique problems with the metacognitive problem-solving skills.

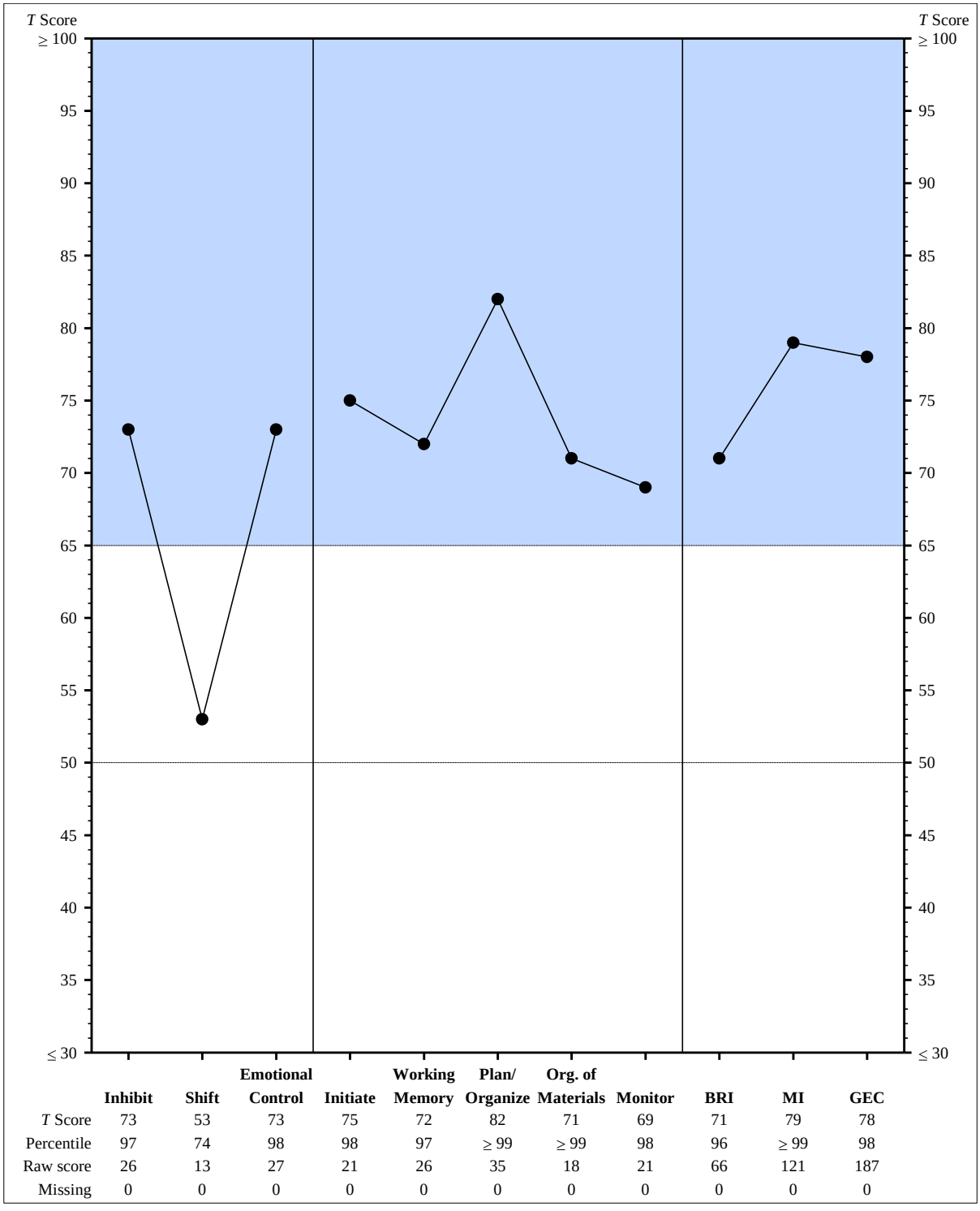
BRIEF® Score Summary Table

Index/scale	Raw score	*T* score	Percentile	90% C.I.
Inhibit	26	73	97	68 - 78
Shift	13	53	74	45 - 61
Emotional Control	27	73	98	68 - 78
Behavioral Regulation Index (BRI)	66	71	96	67 - 75
Initiate	21	75	98	67 - 83
Working Memory	26	72	97	67 - 77
Plan/Organize	35	82	≥ 99	76 - 88
Organization of Materials	18	71	≥ 99	65 - 77
Monitor	21	69	98	61 - 77
Metacognition Index (MI)	121	79	≥ 99	75 - 83
Global Executive Composite (GEC)	187	78	98	75 - 81

Validity scale	Raw score	Cumulative percentile	Protocol classification
Negativity	2	≤ 90	Acceptable
Inconsistency	4	≤ 98	Acceptable

Note: Male,age-specific norms have been used to generate this profile.
For additional normative information, refer to Appendix A - D in the BRIEF® Professional Manual.

Profile of BRIEF® *T* Scores



	Inhibit	Shift	Emotional Control	Initiate	Working Memory	Plan/ Organize	Org. of Materials	Monitor	BRI	MI	GEC
T Score	73	53	73	75	72	82	71	69	71	79	78
Percentile	97	74	98	98	97	≥ 99	≥ 99	98	96	≥ 99	98
Raw score	26	13	27	21	26	35	18	21	66	121	187
Missing	0	0	0	0	0	0	0	0	0	0	0

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

Validity

Before examining the BRIEF profile, it is essential to carefully consider the validity of the data provided. The inherent nature of rating scales (i.e., relying upon a third party for ratings of a child's behavior) brings potential bias to the scores. The first step is to examine the protocol for missing data. With a valid number of responses, the Inconsistency and Negativity scales of the BRIEF provide additional validity indexes.

Negativity

The Negativity scale measures the extent to which the respondent answered selected BRIEF items in an unusually negative manner relative to the clinical sample. Items comprising 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 3% of respondents scoring above 7 in the clinical sample. As with the Inconsistency scale, *T* scores are not generated for this scale. The Negativity score of 2 falls within the acceptable range, suggesting that the respondent's view of Sample Client is not overly negative and that the BRIEF protocol is likely to be valid.

Item	Content	Response
8	Tries the same approach to a problem over and over even when it does not work	Never
13	***Remaining item content redacted for sample report***	Sometimes
23		Never
30		Sometimes
62		Sometimes
71		Never
80		Often

Composite and Summary Indexes

Global Executive Composite

The Global Executive Composite (GEC) is an overarching summary score that incorporates all of the BRIEF clinical scales. Although review of the Metacognition Index, Behavioral Regulation Index, and individual scale scores is strongly recommended for all BRIEF profiles, the GEC can sometimes be useful as a summary measure. In this case, the two summary indexes are not substantially different, with *T* scores separated by 8 points. Thus, the GEC adequately captures the nature of the overall profile. With this in mind, Sample Client's *T* score of 78 (%ile = 98) on the GEC is significantly elevated as compared to the scores of his peers, suggesting significant difficulty in one or more areas of executive function.

Behavioral Regulation and Metacognition Indexes

The Behavioral Regulation Index (BRI) captures the rated child's ability to shift cognitive set and modulate emotions and behavior via appropriate inhibitory control. It is comprised of the Inhibit, the Shift, and the Emotional Control scales. Intact behavioral regulation is likely to be a precursor to appropriate metacognitive problem solving. Behavioral regulation enables the metacognitive processes to successfully guide active systematic problem solving; and more generally, behavioral regulation supports appropriate self-regulation.

The Metacognition Index (MI) reflects the rated child's ability to initiate, plan, organize, self-monitor, and sustain working memory. It can be interpreted as Sample Client's ability to cognitively self-manage tasks and to monitor his performance. The MI relates directly to a child's ability to actively problem solve in a variety of contexts. It is composed of the Initiate, Working Memory, Plan/Organize, Organization of Materials, and Monitor scales.

Examination of the indexes reveals that both the Behavioral Regulation Index (T = 71, %ile = 96) and Metacognition Index (T = 79, %ile = ≥ 99) are elevated. This suggests more global difficulties with self-regulation, including the fundamental ability to inhibit impulses, modulate emotions, and to flexibly problem solve. These global difficulties extend to metacognitive functions, including the ability to sustain working memory, initiate, plan, organize, and self-monitor.

Clinical Scales

The BRIEF clinical scales measure the extent to which the respondent reports problems with different types of behavior related to the eight domains of executive functioning. 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. Sample Client's score on this scale is highly elevated (T = 73, %ile = 97) as compared to his peers. Children with similar scores on the Inhibit scale typically have marked difficulty resisting impulses and difficulty considering consequences before acting. They are often perceived as (a) less in control of themselves than their peers, (b) having difficulty staying in place in line or in the classroom, (c) interrupting others or "calling out" in class frequently, and (d) requiring higher levels of adult supervision. Often, caregivers and teachers are particularly concerned about the verbal and social intrusiveness and the lack of personal safety observed in children who do not inhibit impulses well. Such children may display high levels of physical activity, inappropriate physical responses to others, a tendency to interrupt and disrupt group activities, and a general failure to "look before leaping."

In the contexts of the classroom and assessment settings, children with inhibitory control difficulties often require a higher degree of external structure to limit their impulsive responding. They may start an activity or task before listening to instructions, before developing a plan, or before grasping the organization or gist of the situation.

Examination of the individual items that comprise the Inhibit scale may be informative and may help guide interpretation and intervention.

Item	Content	Response
38	Acts wilder or sillier than others in groups (birthday parties, recess)	Sometimes
41	***Remaining item content redacted for sample report***	Often
43		Often
44		Sometimes
49		Often
54		Often
55		Often
56		Sometimes
59		Sometimes
65		Often

Shift

The Shift scale assesses the ability to move freely 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. Sample Client's score on the Shift scale falls within the average range as compared to like-aged peers (T = 53, %ile = 74). This suggests that Sample Client is generally able to change from task to task or from place to place without difficulty, is able to think of or accept different ways of solving problems, and is able to demonstrate flexibility in the performance of day to day activities.

Item	Content	Response
5	Resists or has trouble accepting a different way to solve a problem with schoolwork, friends, chores, etc.	Sometimes
6	***Remaining item content redacted for sample report***	Never
8		Never
12		Sometimes
13		Sometimes
23		Never
30		Sometimes
39		Sometimes

Emotional Control

The Emotional Control scale measures the impact of executive function problems on emotional expression and assesses a child's ability to modulate or control his or her emotional responses. Sample Client's score on the Emotional Control scale is significantly elevated as compared to like-aged peers (*T* = 73, %ile = 98). This score suggests marked concerns with regulation or modulation of emotions. Sample Client likely overreacts to events and likely demonstrates sudden outbursts, sudden and/or frequent mood changes, and excessive periods of emotional upset. Poor emotional control is often expressed as emotional lability, sudden outbursts, or emotional explosiveness. Children with difficulties in this domain often have overblown emotional reactions to seemingly minor events. Caregivers and teachers of such children frequently describe a child who cries easily or laughs hysterically with small provocation, or a child who has temper tantrums of a frequency or severity that is not age appropriate.

Item	Content	Response
1	Overreacts to small problems	Often
7	***Remaining item content redacted for sample report***	Often
20		Often
25		Sometimes
26		Sometimes
45		Often
50		Often
62		Sometimes
64		Often
70		Often

Initiate

The Initiate scale reflects a child's ability to begin a task or activity and to independently generate ideas, responses, or problem-solving strategies. Sample Client's score on the Initiate scale is significantly elevated compared with like-aged peers (*T* = 75, %ile = 98). This suggests that Sample Client has marked difficulties beginning, starting or "getting going" on tasks, activities, and problem-solving approaches. Poor initiation typically does not reflect noncompliance or disinterest in a specific task. Children with initiation problems typically want to succeed at and complete a task but they have trouble getting started. Caregivers of such children frequently report difficulties with getting started on homework or chores along with a need for extensive prompts or cues in order to begin a task or activity. Children with initiation difficulties are at risk for being viewed as "unmotivated." In the context of psychological assessment, initiation difficulties are often demonstrated in the form of difficulty with word and design fluency tasks as well as a need for additional cues from the examiner in order to begin tasks in general. Alternatively, initiation deficits may reflect depression, and this should be examined particularly if this finding is consistent with the overall affective presentation of the child.

Item	Content	Response
3	Is not a self-starter	Often
10	***Remaining item content redacted for sample report***	Often
16		Often
47		Often
48		Often
61		Sometimes
66		Often
71		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. Sample Client's score on the Working Memory scale is significantly elevated as compared to like-aged peers (*T* = 72, %ile = 97). This suggests that Sample Client has substantial difficulty holding an appropriate amount of information in mind or in "active memory" for further processing, encoding, and/or mental manipulation. Further, Sample Client's score suggests difficulties sustaining working memory, which has a negative impact on his ability to remain attentive and focused for appropriate lengths of time. Caregivers describe children with fragile or limited working memory as having trouble remembering things (e.g., phone numbers or instructions) even for a few seconds, losing track of what they are doing as they work, or forgetting what they are supposed to retrieve when sent on an errand. They often miss information that exceeds their working memory capacity such as instructions for an assignment. Clinical evaluators may observe that a child cannot remember the rules governing a specific task (even as he or she works on that task), rehearses information repeatedly, loses track of what responses he or she has already given on a task that requires multiple answers, and struggles with mental manipulation tasks (e.g., repeating digits in reverse order) or solving arithmetic problems that are orally presented without writing down figures.

Appropriate working memory is necessary to sustain performance and attention. Parents of children with difficulties in this domain report that the children cannot "stick to" an activity for an age-appropriate amount of time and frequently switch tasks or fail to complete tasks. Although working memory and the ability to sustain it have been conceptualized as distinct entities, behavioral outcomes of these two domains are often difficult to distinguish.

Item	Content	Response
2	When given three things to do, remembers only the first or last	Often
9	***Remaining item content redacted for sample report***	Sometimes
17		Often
19		Often
24		Never
27		Often
32		Often
33		Sometimes
37		Often
57		Often

Plan/Organize

The Plan/Organize scale measures the child's ability to manage current and future-oriented task demands. The scale is comprised 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. Sample Client's score on the Plan/Organize scale is significantly elevated as compared to like-aged peers (T = 82, %ile = ≥ 99). This suggests that Sample Client has marked difficulty with the planning and the organization of information which has a negative impact on his approach to problem solving. Planning involves developing a goal or end state and then strategically determining the most effective method or steps to attain that goal. Evaluators can observe planning when a child is given a problem requiring multiple steps (e.g., assembling a puzzle or completing a maze). Sample Client may underestimate the time required to complete tasks or the level of difficulty inherent in a task. He may often wait until the last minute to begin a long-term project or assignment for school, and he may have trouble carrying out the actions needed to reach his goals.

Organization involves the ability to organize oral and written expression as well as to understand the main points expressed in presentations or written material. Organization also has a clerical component that is demonstrated, for example, in the ability to efficiently scan a visual array or to keep track of a homework assignment. Sample Client may approach tasks in a haphazard fashion, getting caught up in the details and missing the "big picture." He may have good ideas that he fails to express on tests and written assignments. He may often feel overwhelmed by large amounts of information and may have difficulty retrieving material spontaneously or in response to open-ended questions. He may, however, exhibit better performance with recognition (multiple choice) questions.

Item	Content	Response
11	Does not bring home homework, assignment sheets, materials, etc.	Often
15	***Remaining item content redacted for sample report***	Often
18		Often
22		Often
28		Sometimes
35		Often
36		Often
40		Often
46		Often
51		Often
53		Often
58		Often

Organization of Materials

The Organization of Materials scale measures orderliness of work, play, and storage spaces (e.g., desks, lockers, backpacks, and bedrooms). Caregivers and teachers typically can provide an abundance of examples describing a child's ability to organize, keep track of, and/or clean up their belongings. Sample Client's score on the Organization of Materials scale is significantly elevated relative to like-aged children ($T = 71$, %ile = ≥ 99). Sample Client is described as having marked difficulty keeping (a) his materials and his belongings reasonably well organized, (b) having his materials readily available for projects or assignments, and (c) as having considerable difficulty finding his belongings when needed. Children who have significant difficulties in this area often do not function efficiently in school or at home because they do not have their belongings readily available for use. Pragmatically, teaching a child to organize his or her belongings can be a useful, concrete tool for teaching greater task organization.

Item	Content	Response
4	Leaves playroom a mess	Often
29	***Remaining item content redacted for sample report***	Often
67		Often
68		Often
69		Often
72		Often

Monitor

The Monitor scale assesses two types of monitoring behaviors: Task-oriented monitoring or work-checking habits and Self-monitoring or interpersonal awareness. The task monitoring portion of the scale captures whether a child assesses his or her own performance during or shortly after finishing a task to ensure accuracy or appropriate attainment of a goal. The self monitoring portion of the scale evaluates whether a child keeps track of the effect that his or her behavior has on others. Sample Client's score on the Monitor scale is moderately elevated, suggesting some difficulty with monitoring (*T* = 69, %ile = 98). Examination of the task-monitoring and self-monitoring clusters of individual items that comprise the Monitor scale reveals strong endorsement of both task-monitoring and self-monitoring items. Children with similar patterns tend to be less cautious in their approach to tasks or assignments and often do not notice and/or check for mistakes. They are often unaware of their own behavior and the impact this behavior has on their social interactions with others. Caregivers often describe children with task-oriented monitoring difficulties as rushing through their work, as making careless mistakes, and as failing to check their work. Clinical evaluators may observe the same types of behavior during formal assessment.

Item	Content	Response
14	Does not check work for mistakes	Often
21	***Remaining item content redacted for sample report***	Sometimes
31		Often
34		Often
42		Sometimes
52		Often
60		Often
63		Sometimes

Additional Clinical Items

The BRIEF Parent and Teacher Forms both contain additional items of clinical interest that are not included in any of the clinical scales. Although these items are not scored and therefore do not contribute to the BRIEF scale raw scores, they were retained because of their direct relevance to functional intervention programming and their relevance to specific clinical populations (e.g., Pervasive Developmental Disorders, Traumatic Brain Injury, and Attention Deficit/Hyperactivity Disorder). Careful review of these individual items can assist the examiner in identifying and targeting areas of concern for intervention and can further reinforce interpretation of the findings from the clinical scales by providing additional evidence of difficulties in the particular domain of executive function. The item summary table below includes the item numbers, item content, and the rater's item responses, as well as the BRIEF scale to which the item was originally assigned.

Item	Content	Response
73	Has trouble waiting for turn (Inhibit)	Often
74	***Remaining item content redacted for sample report***	Often
75		Often
76		Sometimes
77		Often
78		Sometimes
79		Sometimes
80		Often
81		Often
82		Sometimes
83		Never
84		Often
85		Often
86		Never

Comparison of BRIEF Working Memory and Inhibit Scales to ADHD Groups

The BRIEF Inhibit and Working Memory scales may be helpful in identifying children with suspected Attention-Deficit/Hyperactivity Disorder (ADHD). Theoretically, inhibitory control enables self-regulation, and working memory enables sustained attention. It is important at the outset, however, to appreciate the distinction between executive functions and the diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD): Executive functions are neuropsychological constructs whereas ADHD is a neuropsychiatric diagnosis based on a cluster of observed symptoms. Although executive functions underlie the symptoms of ADHD, executive dysfunction is not synonymous with a diagnosis of ADHD. There is general agreement that different aspects of executive dysfunction contribute to the behaviors that characterize ADHD.

The Inhibit and Working Memory scales exhibit good predictive validity and good sensitivity and specificity for detecting a likely diagnosis of Attention-Deficit/Hyperactivity Disorder (ADHD) Inattentive Type or Combined Type. In clinical samples, the Working Memory scale discriminated between children with no ADHD diagnosis (healthy controls) and those with either the Inattentive or Combined types of ADHD. The Inhibit scale further distinguished between controls and children with the Combined Type of ADHD. Please refer to pages 76 through 84 in the BRIEF Professional Manual for further detail. While the BRIEF may be a helpful and efficient tool in assessing for ADHD, it is important that all relevant data be considered in the context of clinical judgment before reaching a diagnostic decision.

In this particular profile, Sample Client's score on the Inhibit scale is significantly elevated as compared to like-aged peers (T = 73, %ile = 97). His score on the Working Memory scale is also elevated (T = 72, %ile = 97) indicating that he may have problems with working memory. This profile is similar to that seen in children clinically diagnosed with ADHD, Combined Type.

As with any diagnostic decision, consideration of all relevant clinical assessment data is essential and clinical judgment is of paramount importance. Teacher and parent rating scales, such as the BRIEF, can add valuable information to a more comprehensive assessment for ADHD.

Executive System Intervention

A General Framework

Given the unique nature of the executive functions in playing a "command" role in terms of guiding and regulating thought and behavior, the approach to intervention must be considered globally. First, one must consider the end goal or outcome of "good" executive function for the child. The following executive outcomes for children are proposed:

- Demonstrating purposeful, goal-directed activity
- Displaying an active problem-solving approach
- Exerting self-control
- Demonstrating maximal independence
- Exhibiting reliable and consistent behavior and thinking
- Demonstrating positive self-efficacy
- Exhibiting an internal locus of control

Remaining content redacted for sample report

Goal-Plan-Do-Review System

The use of a general executive problem-solving routine that promotes (a) systematic goal definition, (b) planning, (c) action, (d) self-monitoring/evaluating, and (e) flexible, strategic adjustment of plans and actions may serve as a central framework or vehicle within which specific executive function intervention methods and strategies can be incorporated. The Goal-Plan-Do-Review (GPDR) method is one such system (Ylvisaker, Szkeres, et al., 1998). Other goal-oriented problem-solving methods can also be considered (Levine et al., 2000; Marlowe, 2001). The complexity of the problem-solving routine should be adapted to the competency level of the child. The GPDR system is presented in Figure 1.

In developing interventions for the executive functions, it is important to appreciate what they are not. Executive function interventions are not

Remaining content redacted for sample report

***** End of Report *****