

Behavior Rating Inventory of Executive Function-Preschool Version

# Enhanced Interpretation of the Behavior Rating Inventory of Executive Function–Preschool Version (BRIEF-P)

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# **Executive Summary**

There are several steps to describing the strengths and weaknesses of a child's everyday executive functioning via Behavior Rating Inventory of Executive Function–Preschool Version (BRIEF-P) ratings: assessing validity of ratings, making normative comparisons, examining base rates of scale/index scores in normative and clinical groups, interpreting profiles of scale elevations within a protocol, and interpreting ratings between raters (e.g., parents and teachers). These interpretive steps are supported by the use of normative information provided in the BRIEF-P Professional Manual as well as the additional base rates, T-score profiles, and interrater statistics provided in <u>Appendix A</u>, <u>B</u>, and <u>C</u> of this white paper. While assessing validity and interpreting T scores are common practice, the additional steps offered here provide for enhanced, and more nuanced, interpretation of BRIEF-P ratings. In addition to incorporating evidence from other sources, following these steps offers a more comprehensive evaluation of the child's self-regulatory functioning across school and home environments. Enhanced BRIEF-P interpretation is demonstrated via an illustrative case example.

## Introduction

The Behavior Rating Inventory of Executive Function–Preschool Version (BRIEF-P; Gioia, Espy, & Isquith, 2003) is a rating scale for parents and teachers of preschool-aged children that assesses everyday behaviors associated with executive functions in the home and preschool environments. It is designed for preschool children ages 2 years, 0 months to 5 years, 11 months, including those with emergent learning disabilities and attentional disorders; language disorders; traumatic brain injuries; autism spectrum disorders; and other developmental, neurological, psychiatric, and medical conditions.

The BRIEF-P is part of the BRIEF family of products, which includes the BRIEF Second Edition (BRIEF2; Gioia, Isquith, Guy, & Kenworthy, 2015) and the BRIEF-Adult Version (BRIEF-A; Roth, Isquith, & Gioia, 2005). The BRIEF2 Parent and Teacher forms were developed for parents and teachers of children ages 5 to 18 years, and the BRIEF2 Self-Report Form is for adolescents ages 11 to 18 years. The BRIEF-A Self-Report Form and Informant Form are used with adults ages 18 years and older. Since the first BRIEF product was published in 2000, the family of instruments has been translated or adapted for use in more than 60 languages on six continents. Additionally, more than 1,300 studies published in peer-reviewed journals have included the BRIEF family of instruments, adding to a large international body of evidence for reliable and valid interpretation with typically developing individuals and individuals with a broad spectrum of clinical conditions across the life span. Since it was published in 2003, the BRIEF-P has been included in more than 250 studies published internationally in peerreviewed journals, attesting to its validity for assessing the development of executive functions in very young children.

#### The purpose of this white paper is to:

- a. Provide BRIEF-P users with new statistics to enhance BRIEF-P interpretation, including interrater agreement metrics and base rate tables for various clinical groups and the standardization samples.
- **b.** Demonstrate enhanced BRIEF-P interpretation via an illustrative case example.

An introduction to the BRIEF-P and executive function will first be presented, followed by the steps for enhanced BRIEF-P interpretation and the case example. BRIEF-P statistics are provided in <u>Appendix A</u>, <u>B</u>, and <u>C</u> at the end of this white paper for use in your own interpretation of BRIEF-P scores.

For professionals working with older children and adolescents, an in-depth guide to enhanced interpretation for the school-age BRIEF2 Parent, Teacher, and Self-Report Forms is available in the <u>BRIEF2</u> <u>Interpretive Guide</u> (Isquith, Gioia, Guy, & Kenworthy, 2017), which can be purchased on parinc.com.

# **Quick Links**

Appendix A: BRIEF-P Base Rates of Clinically Elevated T Scores

<u>Appendix B: BRIEF-P Mean</u> <u>*T* Scores</u>

Appendix C: Interrater Statistics

Since it was published in 2003, the BRIEF-P has been included in more than 250 studies published internationally in peer-reviewed journals.

# What is Executive Function?

The executive functions are a collection of processes that are responsible for guiding, directing, and managing cognitive, emotional, and behavioral functions, particularly during novel problem solving. The term *executive function* represents an umbrella construct that includes a collection of interrelated functions responsible for purposeful, goal-directed, problem-solving behavior.

Specific subdomains that make up this collection of regulatory or management functions include the ability to initiate behavior, inhibit competing actions or stimuli, select relevant task goals, plan and organize a means to solve complex problems, shift problem-solving strategies flexibly when necessary, and monitor and evaluate behavior. The working memory capacity, whereby information is actively held "online" in the service of complex, multistep problem solving, is also described as a key aspect of executive function (Pennington, Bennetto, McAleer, & Roberts, 1996). Finally, the executive functions are not exclusive to cognitive control but also include regulatory control of emotional response and behavioral action. Because executive function develops over time in typically developing children relative to the structural and functional development of the brain, it is important to quantify what is atypical executive functioning given a child's age and also recognize that executive dysfunction can be an indication of other diagnoses.

## The BRIEF-P

The BRIEF-P contains 63 items within five clinical scales that measure different aspects of executive functioning: Inhibit, Shift, Emotional Control, Working Memory, and Plan/Organize. Table 1 describes the clinical scales and two validity scales (Inconsistency and Negativity). The clinical scales form the three broader indexes of Inhibitory Self-Control (ISCI), Flexibility (FI), and Emergent Metacognition (EMI) and an overall composite score, the Global Executive Composite (GEC).

### Enhanced Interpretation of the BRIEF-P

Strategies for interpreting the BRIEF-P scales are provided in the BRIEF-P Professional Manual. The following section describes an enhanced interpretation approach as outlined in Table 2. Table 2 provides the key steps for interpreting the BRIEF-P and includes associated references and examples of statements that might be included in a report for each step. These steps are illustrated via a case example introduced in the BRIEF-P Professional Manual and expanded on in the following sections. Tables to aid in interpretation are found in the BRIEF-P Professional Manual as well in Appendix A, B, and C of this white paper.

### **Case Example: Adam**

#### **Background Information**

Adam is a 3-year, 8-month-old boy who presents with marked impulsivity, hyperactivity, and distractibility. His medical and developmental histories are benign, but he has a strong family history of attentional and behavioral disorders, and his parents divorced when he was 1 year of age. Adam's impulsivity has resulted in

The term executive function represents an umbrella construct that includes a collection of interrelated functions responsible for purposeful, goaldirected, problemsolving behavior.

|                                      | Description | Table 1<br>of the BRIEF-P Scales   |
|--------------------------------------|-------------|--|
| Scale/index                          | N of items  | Description  |
| Clinical scale/index                 |             |  |
| Inhibit                              | 16          | Controls impulses and behavior; appropriately stops and modulates own behavior at the proper time or in the proper context   |
| Shift                                | 10          | Moves freely from one situation, activity, or aspect of a problem to<br>another as the situation demands; makes transitions; solves problems<br>flexibly   |
| Emotional Control                    | 10          | Modulates emotional responses appropriately to situational demand<br>or context  |
| Working Memory                       | 17          | Holds information in mind for the purpose of completing a task or making the appropriate response; stays with, or sticks to, an activity   |
| Plan/Organize                        | 10          | Anticipates future events or consequences; uses goals or instructions<br>to guide behavior in context; develops or implements appropriate<br>steps ahead of time to carry out an associated task or action |
| Inhibitory Self-Control Index (ISCI) | 26          | Composed of the Inhibit and Emotional Control scales   |
| Flexibility Index (FI)               | 20          | Composed of the Shift and Emotional Control scales   |
| Emergent Metacognition Index (EMI)   | 27          | Composed of the Working Memory and Plan/Organize scales  |
| Global Executive Composite (GEC)     | 63          | Composed of all clinical scales (Inhibit, Shift, Emotional Control,<br>Working Memory, and Plan/Organize)  |
| Validity scales                      |             |  |
| Inconsistency                        | 10 pairs    | Indicates the extent to which the respondent answers similar BRIEF-P items in an inconsistent manner   |
| Negativity                           | 10          | Measures the extent to which the respondent answers selected BRIEF-P items in an unusually negative manner   |

|   | В  | Table 2<br>RIEF-P Interpretation  |   |
|---|--|---|---|
| Step  | Reference  | Procedure   | Example statements  |
| 1. Examine validity   | Tables 2-3 <sup>a</sup> and<br>BRIEF-P Scoring<br>Summary/Profile<br>Form                      | Review Inconsistency and Negativity scales and other indications of compromised validity.   | Ratings on the BRIEF-P were valid.  |
| 2a. Interpret scores<br>relative to normative<br>expectations | Appendixes A <sup>a</sup><br>and B <sup>a</sup> , BRIEF-P<br>Score or Interpre-<br>tive Report | Review and report BRIEF-P <i>T</i> scores<br>and percentiles for scales, indexes,<br>and GEC.   | Parent ratings noted difficulties on<br>the Inhibit, Working Memory, and<br>Plan/Organize scales but function-<br>ing was typical on the Shift and<br>Emotional Control scales.   |
| 2b. Examine base rates  | <u>Appendix A</u>  | Compare $T$ scores to base-rate tables<br>of typically developing children and<br>children with various acquired and<br>developmental disorders.                | Elevations of this magnitude on the<br>Inhibit and Working Memory scales<br>occur in less than 10% of typically<br>developing children his age.   |
| 3. Interpret within-test score profile                        | <u>Appendix B</u>  | Review and report BRIEF-P <i>T</i> -score peaks and valleys; examine profile relative to diagnostic groups.   | The profile pattern is like that seen<br>in students diagnosed with ADHD.   |
| 4. Interpret ratings between informants                       | <u>Appendix C</u>  | Examine discrepancies between raters;<br>consider interrater reliabilities, base<br>rates and significance levels of<br>differences, and possible explanations. | Teacher and parent ratings revealed<br>a similar pattern of concerns with<br>inhibitory control, working memory,<br>and planning and organization<br>but also suggested problems with<br>emotional control in the classroom<br>setting.<br>Teacher and parent ratings were in<br>good agreement in general. |

*Note.* GEC = Global Executive Composite. <sup>a</sup>Appears in Gioia, Espy, & Isquith (2003). several accidents that required doctors' office visits for stitches, but none with alteration of consciousness. He is quick to hit, kick, or throw things when his needs are not met. Because of his behavior, he has been asked to leave two day care programs, and his mother now stays at home to care for him.

Adam's pediatrician referred him for an evaluation of his current difficulties and development of intervention recommendations. During his evaluation, he demonstrated a broad range of affect that was mercurial, ranging from excitement at finding a new object in the office to anger when not allowed to leave the room on demand. As part of the evaluation, both parent (Adam's mother) and teacher (Adam's former day care teacher) BRIEF-P ratings were obtained; their scores are presented in Figure 1.

# Steps for BRIEF-P Interpretation

### Step 1: Examine Validity

Before interpreting BRIEF-P parent or teacher scores, the clinician should carefully consider the validity of the data provided. The inherent nature of rating scales (i.e., reliance on a third party for ratings of a child's behavior) potentially introduces bias to the scores. The BRIEF-P includes two scales (Inconsistency and Negativity) that provide information about validity.

Adam's parent and teacher Inconsistency scores were in the Acceptable range, but the parent Negativity score was Elevated. This score raised the possibility of overly negative views by his mother, who completed the scale, but it must also be viewed in the context of Adam's fairly extreme behaviors. Adam's mother rated him as often having difficulties on many items, with the exception of items on the Shift scale. Because of the consistency among the ratings, his history of expulsion from day care programs, and his marked impulsivity and activity level during the evaluation, the ratings likely reflect extreme behaviors rather than an overly negative rater perspective. Indeed, Adam's behaviors were extreme, and the Negativity scale was designed to capture behaviors that are rarely endorsed except in cases of extreme behaviors or negative bias.

It is important to note that how, or whether, we report information about validity of ratings should be approached with care. If validity scales are not elevated, the simple statement *parent and teacher ratings on the BRIEF-P were valid* will suffice. Noting that a score was not valid may not be necessary or helpful. For example, writing *parent ratings were overly negative* or *teacher ratings were inconsistent* can have negative consequences for the relationship between parent, teacher, and clinician. Thus, it is often preferable for clinicians to review the validity scales on the BRIEF-P and to follow up via interview when the scales are elevated or questionable rather than to state specifics in the report. Information about validity is meant to assist the clinician in interpreting scores, not necessarily to provide feedback to the family or educational team.

#### Step 2a: Interpret Scores Relative to Normative Expectations

Adam's mother's ratings on the BRIEF-P Inhibit and Emotional Control scales were clinically elevated. Likewise, the ISCI score, which is composed of these two scales (see Figure 1), was also clinically elevated. Adam's teacher rated Adam as clinically elevated on the Inhibit scale and elevated but within normal limits on the Emotional Control scale. Scores for both Adam's mother and his teacher on the Working Memory and Plan/Organize scales were also clinically elevated, as was the EMI score. Of interest, the score on the Shift scale was not elevated for either rater, suggesting that Adam does not exhibit behavioral rigidity or cognitive inflexibility. Indeed, one of Adam's difficulties is that he has no routines and does not adhere to the same patterns of daily functioning-behaviors that are opposite of those captured on the Shift scale. Because the Emotional Control scale score was elevated and the Shift scale score was not, the associated FI score was only moderately elevated for both the parent and teacher ratings. In sum, Adam's parent and teacher BRIEF-P scores suggest marked inhibitory control deficits. Because Adam does not have adequate ability to inhibit, his behaviors are impulsive and his emotions are volatile. Further, he is unable to sustain working memory, reflected in his inability to remain attentive or focused for reasonable lengths of time. In Adam's report, we might write: Parent and teacher ratings of Adam's everyday executive functioning indicated marked problems inhibiting impulses, sustaining working memory and attention, and planning and organizing problem solving. Parent ratings also indicated marked problems regulating emotions.

#### Step 2b: Examine Base Rates

BRIEF-P *T* scores and percentiles provide information about the level of concern relative to typically developing peers. The base rate of a given score brings an important context to the score by highlighting how often similar scores occur in typically developing children versus children with clinical conditions. Base rates of clinically elevated *T* scores ( $\geq$ 65) for the BRIEF-P parent and teacher standardization samples as well as clinical groups (ADHD, ASD, TBI, SLI, DS, and preterm birth) are presented in <u>Appendix A</u>. Given Adam's presentation, BRIEF-P *T* scores from Adam's mother can be compared to those in the BRIEF-P parent standardization sample and to children with ADHD and ASD (see Figure 1). In Adam's report, we could write: *Elevations of this magnitude* ( $T \geq$  65) *on the Inhibit, Working Memory, and Plan/Organize* 

|                                      |         |                      | Bas                        | Base rates |     |         |                      |
|--------------------------------------|---------|----------------------|----------------------------|------------|-----|---------|----------------------|
| Scale/index/composite                | T score | Qualitative label    | BRIEF-P<br>standardization | ADHD       | ASD | T score | Qualitative label    |
| Inhibit                              | 86      | Clinically elevated  | 6                          | 77         | 88  | 84      | Clinically elevated  |
| Shift                                | 55      | Within normal limits | 88                         | 71         | 31  | 54      | Within normal limits |
| Emotional Control                    | 72      | Clinically elevated  | 00                         | 47         | 75  | 63      | Within normal limits |
| Working Memory                       | 72      | Clinically elevated  | 6                          | 71         | 75  | 78      | Clinically elevated  |
| Plan/Organize                        | 75      | Clinically elevated  | 6                          | 77         | 56  | 86      | Clinically elevated  |
| Inhibitory Self-Control Index (ISCI) | 83      | Clinically elevated  | 10                         | 77         | 94  | 79      | Clinically elevated  |
| Flexibility Index (Fl)               | 65      | Clinically elevated  | 6                          | 29         | 75  | 60      | Within normal limits |
| Emergent Metacognition Index (EMI)   | 75      | Clinically elevated  | 6                          | 71         | 69  | 82      | Clinically elevated  |
| Global Executive Composite (GEC)     | 79      | Clinically elevated  | 6                          | 71         | 81  | 80      | Clinically elevated  |
|                                      |         |                      |                            |            |     |         |                      |

**BRIEF-P** Teacher

**BRIEF-P** Parent

Figure 1. Results from the BRIEF-P Parent and Teacher Form ratings for Adam. ADHD = attention-deficit hyperactivity disorder; ASD = autism spectrum disorder.

scales are seen in less than 10% of typically developing children but are commonly seen in children diagnosed with attention disorders. The elevation on the Emotional Control scale is also seen in less than 10% of typically developing children but only in approximately 50% of children with ADHD.

### Step 3: Interpret Within-Test Score Profile

Scores on the BRIEF-P scales provide information about the level of concern compared with children in the standardization sample. It is often useful to interpret scores relative to other scales within a profile, or to examine the peaks and valleys within a single protocol and to compare this profile to profiles in known clinical groups such as in children with ADHD or ASD. Clinical experience suggests that it is unusual to find a flat profile across BRIEF-P scales (i.e., all scales with similar T-score levels) for an individual referred for evaluation. Rather, most ratings of children have peaks and

valleys that reflect areas of relatively greater concern and areas of more typical function.

Figure 2 plots Adam's BRIEF-P parent *T* scores along with mean *T* scores from the BRIEF-P parent standardization sample and children diagnosed with ADHD and ASD.

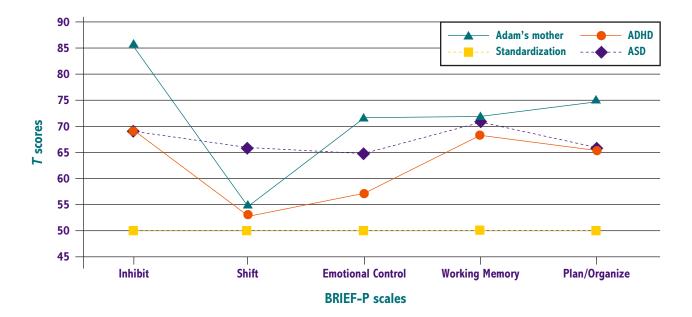
# Most ratings of children have peaks and valleys that reflect areas of relatively greater concern and areas of more typical function.

Appendix B presents the mean *T* scores for these and various other clinical groups. Visual inspection shows that Adam's scores are more similar to those of children with ADHD than to children with ASD or to typically developing children. Comparing Adam's scores to both clinical profiles reveals that his Inhibit

scale score is highly elevated, which is similar to children with either ADHD or ASD. However, his low Shift scale score is more like the profile of children with ADHD rather than ASD, who tend to have marked elevations on the Shift scale. In Adam's report, we might write: *The profile pattern is like that seen in children diagnosed with ADHD*.

# Step 4: Interpret Ratings Between Informants

Gathering multiple perspectives in the assessment of a child's functioning provides a more comprehensive set of data with which to understand his or her needs, with similarities and differences between raters often providing clinically useful information. In the most clear-cut cases, each informant will have a generally similar perspective with overall agreement across scales and indexes. A more challenging case occurs when there is disagreement. There may be several reasons for differences between ratings, and these reasons may lead to different interventions.



**Figure 2.** Adam's BRIEF-P Parent and Teacher Form scale *T* scores plotted against mean scale *T* scores for various clinical groups. ADHD = attention-deficit hyperactivity disorder; ASD = autism spectrum disorder.

For example, a child may show better flexibility or adaptability at home than in school or vice versa, and this can suggest ways to import supports that are helpful from one environment into the other. In order to facilitate interpretation across raters, it can be helpful to examine differences between raters' T scores and the base rates of the differences and to consider interrater reliabilities (see <u>Appendix C</u>).

To facilitate clinical interpretation of differences between parent and teacher ratings, reliable change index (RCI) scores are provided (see Table C.1). The *T*-score values required to indicate a significant difference between parent and teacher BRIEF-P scores are listed for each scale and index at the 80% (p < .20), 90% (p < .10), 95% (p < .10) .05), and 99% (p < .01) confidence levels. In the clinical setting, a T-score difference that exceeds the 80% confidence level is usually considered meaningful. To interpret the significance of the difference between two scores of the same scale or index, calculate the absolute difference between the two scores and compare with the values in Table C.1. Figure 3 shows Adam's parent and teacher T-score differences for each scale and index and the significance levels. For example, Adam's mother's ratings on the Inhibit scale resulted in a T score of 86, and his teacher ratings on the same scale resulted in a T score of 84 for an absolute difference of 2. Table C.1 shows that this difference is not significant.

In addition to considering the significance of *T*-score differences between raters, the percentages of *T*-score differences derived from the interrater sample should be reviewed to determine how common the absolute

difference between specific scores is. The lower the percentage, the more uncommon the difference. Uncommon discrepancies between raters should be investigated to determine why they exist. As seen in Table C.2, approximately 60% of rater pairs are within 10 T-score points of each other, with an additional 15% within 10 to 20 T-score points, resulting in the majority of rater pairs being within 20 T-score points of each other. Thus, it is unusual to have ratings that are 20 or more T-score points apart. As a general rule, differences between raters of more than 10 *T*-score points might suggest very different perspectives that warrants further exploration. As shown in Figure 3, the largest difference between Adam's mother's and his teacher's ratings was found on the Plan/Organize scale. This difference was also relatively uncommon, occurring in only 14.3% of the sample, indicating that Adam's mother and his teacher disagreed about the severity of his problems more than is typical, though the difference was not statistically significant. In Adam's report, we might simply write: Parent and teacher ratings were in good agreement.

#### Putting It All Together

While these interpretive steps may seem cumbersome at first, they can result in a more thorough and nuanced interpretation of BRIEF-P profiles. In this case, following the steps in Table 2 would result in an interpretive paragraph similar to the following:

Parent and teacher ratings of Adam's everyday executive functioning were in good agreement and indicated marked problems inhibiting impulses, sustaining working memory and attention, and planning and organizing problem solving. Parent ratings also indicated marked problems regulating

| Scale/index/composite                | BRIEF-P<br>Parent<br><i>T</i> score | BRIEF-P<br>Teacher<br><i>T</i> score | Absolute<br>difference | Significance<br>level | % of<br>sample |
|--------------------------------------|-------------------------------------|--------------------------------------|------------------------|-----------------------|----------------|
| Inhibit                              | 86                                  | 84                                   | 2                      | ns                    | 60.0           |
| Shift                                | 55                                  | 54                                   | 1                      | ns                    | 64.3           |
| Emotional Control                    | 72                                  | 63                                   | 9                      | ns                    | 58.9           |
| Working Memory                       | 72                                  | 78                                   | 6                      | ns                    | 61.3           |
| Plan/Organize                        | 75                                  | 86                                   | 11                     | ns                    | 14.3           |
| Inhibitory Self-Control Index (ISCI) | 83                                  | 79                                   | 4                      | ns                    | 61.1           |
| Flexibility Index (Fl)               | 65                                  | 60                                   | 5                      | ns                    | 62.9           |
| Emergent Metacognition Index (EMI)   | 75                                  | 82                                   | 7                      | ns                    | 64.0           |
| Global Executive Composite (GEC)     | 79                                  | 80                                   | 1                      | ns                    | 58.4           |

Figure 3. BRIEF-P Parent and Teacher score discrepancies for Adam. ns = not significant.

emotions. Elevations of this magnitude ( $T \ge 65$ ) on the BRIEF-P Inhibit, Working Memory, and Plan/Organize scales are seen in less than 10% of typically developing children but are commonly seen in children diagnosed with attention disorders. The elevation on the Emotional Control scale is also seen in less than 10% of typically developing children but in approximately 50% of children with ADHD. Adam's profile of strengths and weaknesses in self-regulation is similar to students diagnosed with ADHD.

# Recommendations for Adam

With this BRIEF-P profile, Adam is at high risk for continued behavioral, social, and emotional difficulties that will likely interfere with his success across multiple domains. Recommendations should focus on bolstering inhibitory control as the primary need. Because of the extreme nature of his difficulties and their effect on his functioning, Adam may be referred for pharmacological consultation. Because Adam is too young and too impulsive to consider consequences with any delay, he and his family should be referred to a behavioral specialist who can design a program focused on controlling antecedents to his impulsive behaviors. At the same time, consequences—as long as they are meaningful, consistent, and immediate—could be helpful in supporting better inhibitory control and better social interactions. Minimal focus was given to working memory and metacognitive aspects of executive function because inhibitory control needs to improve first. Following these steps offers a more comprehensive evaluation of the child's self-regulatory functioning across school and home environments.

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# **Appendix A:**

BRIEF-P Base Rates of Clinically Elevated T Scores

# Table A.1 BRIEF-P Base Rates of Clinically Elevated T Scores (≥65) for the Parent and Teacher Standardization Samples and Various Clinical Samples

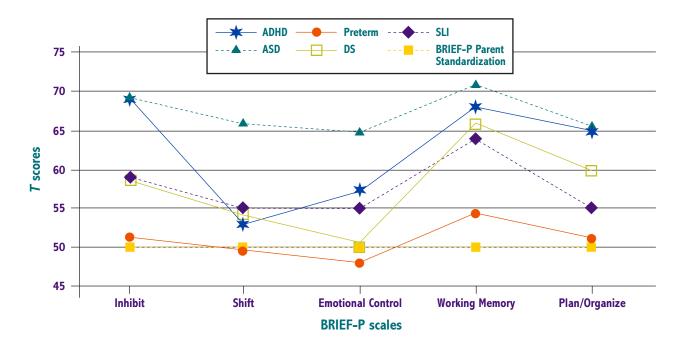
| Sample                               | BRIEF-P<br>standardization <sup>ª</sup> | BRIEF-P<br>standardization <sup>ª</sup> | ADHDª  | ASDª   | ASD⁵   | DS     | DS⁴     | DS <sup>d</sup> | DS <sup>e</sup> |
|--------------------------------------|---|---|--------|--------|--------|--------|---------|-----------------|-----------------|
| Rater (parent or teacher)            | Parent                                  | Teacher                                 | Parent | Parent | Parent | Parent | Teacher | Teacher         | Parent          |
| n                                    | 406                                     | 302                                     | 17     | 16     | 39     | 26     | 19      | 25              | 22              |
| Scale/index/composite                |   |   |        |        |        |        |         |                 |                 |
| Inhibit                              | 9                                       | 9                                       | 77     | 88     | 49     | 31     | 36      | 32              | 32              |
| Shift                                | 12                                      | 13                                      | 29     | 69     | 36     | 23     | 10      | 20              | 19              |
| Emotional Control                    | 8                                       | 11                                      | 47     | 75     | 33     | 7      | 24      | 15              | 15              |
| Working Memory                       | 9                                       | 11                                      | 71     | 75     | 54     | 62     | 75      | 62              | 60              |
| Plan/Organize                        | 9                                       | 10                                      | 77     | 56     | 39     | 43     | 44      | 40              | 32              |
| Inhibitory Self-Control Index (ISCI) | 10                                      | 8                                       | 77     | 94     | 49     | 19     |         |                 | 29              |
| Flexibility Index (FI)               | 9                                       | 10                                      | 29     | 75     | 36     | 19     |         |                 | 19              |
| Emergent Metacognition Index (EMI)   | 9                                       | 10                                      | 71     | 69     | 44     | 57     |         |                 | 73              |
| Global Executive Composite (GEC)     | 9                                       | 11                                      | 71     | 81     | 51     | 42     |         | _               | 53              |

| Sample                               | Language<br>disorders <sup>ª</sup> | SLI <sup>f</sup> | S⊔l <sup>f</sup> | Pretermª | Preterm <sup>g</sup> | Mild/<br>moderate<br>TBI <sup>h</sup> | Severe TBI <sup>h</sup> |
|--------------------------------------|------------------------------------|------------------|------------------|----------|----------------------|---------------------------------------|-------------------------|
| Rater (parent or teacher)            | Parent                             | Parent           | Teacher          | Parent   | Parent               | Parent                                | Parent                  |
| n                                    | 21                                 | 19               | 19               | 34       | 66                   | 63                                    | 23                      |
| Scale/index/composite                |                                    |                  |                  |          |                      |                                       |                         |
| Inhibit                              | 32                                 |                  |                  | 12       | _                    | _                                     | _                       |
| Shift                                | 29                                 |                  | _                | 21       | _                    | _                                     | _                       |
| Emotional Control                    | 29                                 |                  | _                | 9        | _                    | _                                     | _                       |
| Working Memory                       | 39                                 | _                | _                | 35       | _                    | _                                     | _                       |
| Plan/Organize                        | 29                                 |                  | —                | 18       | —                    | —                                     |                         |
| Inhibitory Self-Control Index (ISCI) | 29                                 |                  |                  | 15       | _                    | _                                     | _                       |
| Flexibility Index (FI)               | 29                                 |                  | _                | 9        | _                    | _                                     | _                       |
| Emergent Metacognition Index (EMI)   | 32                                 |                  |                  | 29       | _                    |                                       |                         |
| Global Executive Composite (GEC)     | 36                                 | 16               | 32               | 18       | 24                   | 27                                    | 42                      |

<sup>a</sup>Appears in Gioia, Espy, & Isquith (2003). <sup>b</sup>Appears in Smithson et al. (2013). <sup>c</sup>Appears in Lee et al. (2011). <sup>d</sup>Appears in Daunhauer et al. (2014). <sup>e</sup>Appears in Loveall, Conners, Tungate, Hahn, & Osso (2017). <sup>f</sup>Appears in Wittke, Spaulding, & Schechtman (2013). <sup>g</sup>Appears in Loe, Feldman, & Huffman (2014). <sup>h</sup>Appears in Karver et al. (2012). ADHD = attention-deficit hyperactivity disorder; ASD = autism spectrum disorder; DS = Down syndrome; SLI = speech/language impairment; Preterm = preterm birth; TBI = traumatic brain injury.

# **Appendix B:**

BRIEF-P Mean T Scores for the BRIEF-P Standardization Samples and Various Clinical Groups



**Figure B.1.** Mean scale *T* scores for the BRIEF-P Parent standardization sample and various clinical groups. ADHD = attention-deficit hyperactivity disorder; ASD = autism spectrum disorder; Preterm = preterm birth; DS = Down syndrome; SLI = speech/language impairment.

| Table B.1<br>Mean <i>T</i> Scores for the E<br>and Teacher Standardiz |                     |                      |
|---|---------------------|----------------------|
| Rater (parent or teacher)   | Parent <sup>ª</sup> | Teacher <sup>ª</sup> |
| n   | 460                 | 302                  |
| Scale/index/composite   |                     |                      |
| Inhibit   | 50.02               | 49.99                |
| Shift   | 49.98               | 50.00                |
| Emotional Control   | 50.00               | 50.08                |
| Working Memory  | 50.05               | 50.06                |
| Plan/Organize   | 50.00               | 49.99                |
| Inhibitory Self-Control Index (ISCI)                                  | 50.01               | 49.86                |
| Flexibility Index (FI)  | 50.03               | 49.99                |
| Emergent Metacognition Index (EMI)                                    | 50.03               | 50.05                |
| Global Executive Composite (GEC)                                      | 50.00               | 50.05                |
| <sup>a</sup> Appears in Gioia, Espy, & Isquith (2003).                |                     |                      |

| BRIEF-P Mean T Scores fo             | or Various             | Attention                   | -Deficit Hyp                     | eractivit | y Disord               | er (ADHD)                     | Samples                         |
|--------------------------------------|------------------------|-----------------------------|----------------------------------|-----------|------------------------|-------------------------------|---------------------------------|
| Reference                            | BRIEF-P <sup>a,b</sup> | Skogan<br>et al.<br>(2015)° | Ezpeleta &<br>Granero<br>(2015)° |           | er, Lam, &<br>e (2016) | Mahone &<br>Hoffman<br>(2007) | -                               |
| Rater (parent or teacher)            | Parent                 | Parent                      | Parent                           | Parent    | Teacher                | Parent                        |                                 |
| <u>n</u>                             | 17                     | 104                         | 23                               | 33        | 33                     | 25                            |                                 |
| Scale/index/composite                |                        |                             |                                  |           |                        |                               | <i>M T</i> score across studies |
| Inhibit                              | 76.25                  | 63.50                       | 65.25                            | —         |                        | 69.80                         | 68.70                           |
| Shift                                | 56.75                  | 48.75                       | 48.75                            |           | _                      | 59.10                         | 53.34                           |
| Emotional Control                    | 62.50                  | 54.25                       | 49.25                            | _         | —                      | 61.60                         | 56.90                           |
| Working Memory                       | 73.75                  | 61.75                       | 61.75                            | _         | _                      | 76.20                         | 68.36                           |
| Plan/Organize                        | 74.00                  | 59.00                       | 56.00                            | _         | _                      | 71.80                         | 65.20                           |
| Inhibitory Self-Control Index (ISCI) | 73.00                  | 60.75                       | 59.75                            | _         | _                      | 69.00                         | 65.63                           |
| Flexibility Index (FI)               | 60.75                  | 51.75                       | 48.75                            | _         | _                      | 61.70                         | 55.74                           |
| Emergent Metacognition Index (EMI)   | 73.25                  | 60.00                       | 60.00                            |           |                        | 75.80                         | 67.26                           |
| Global Executive Composite (GEC)     | 74.25                  | _                           | 59.25                            | 73.39     | 66.91                  | 73.40                         | 69.44                           |

Table B.2

<sup>a</sup>Appears in Gioia, Espy, & Isquith (2003). <sup>b</sup>T scores computed from reported item means. <sup>c</sup>T scores computed from reported raw scores.

|                           | Table B.3                                      |
|---------------------------|--|
| BRIEF-P Mean T Scores for | Various Autism Spectrum Disorder (ASD) Samples |

| Reference                            | BRIEF-P <sup>a,b</sup> | Etemad<br>(2011) <sup>°</sup> | Zantinge,<br>Rijn,<br>Stockmann,<br>& Swaab<br>(2017) <sup>°</sup> | Smithson<br>et al.<br>(2013) | Warren<br>et al.<br>(2010) | Jahromi,<br>Bryce, &<br>Swanson<br>(2013) | _                               |
|--------------------------------------|------------------------|-------------------------------|--|------------------------------|----------------------------|---|---------------------------------|
| Rater (parent or teacher)            | Parent                 | Parent                        | Parent   | Parent                       | Parent                     | Parent                                    |                                 |
| n                                    | 16                     | 50                            | 27   | 39                           | 26                         | 20  |                                 |
| Scale/index/composite                |                        |                               |  |                              |                            |   | <i>M T</i> score across studies |
| Inhibit                              | 78.25                  | 65.25                         | 71.00  | 61.97                        | —                          | —   | 69.12                           |
| Shift                                | 70.00                  | 64.75                         | 67.50  | 61.10                        | —                          | —   | 65.84                           |
| Emotional Control                    | 75.25                  | 59.50                         | _  | 59.05                        | _                          | _   | 64.60                           |
| Working Memory                       | 76.00                  | 69.75                         | _  | 67.46                        | _                          |   | 71.07                           |
| Plan/Organize                        | 74.00                  | 62.00                         | _  | 61.10                        | _                          |   | 65.70                           |
| Inhibitory Self-Control Index (ISCI) | 79.00                  | _                             | _  | 62.28                        | _                          | 51.68                                     | 64.32                           |
| Flexibility Index (FI)               | 79.00                  |                               | —  | 61.13                        | _                          |   | 70.07                           |
| Emergent Metacognition Index (EMI)   | 77.50                  |                               |  | 66.18                        | _                          |   | 71.84                           |
| Global Executive Composite (GEC)     | 81.75                  |                               | —  | 65.31                        | 46.50                      |   | 64.52                           |

<sup>a</sup>Appears in Gioia, Espy, & Isquith (2003). <sup>b</sup>T scores computed from reported item means. <sup>c</sup>T scores computed from reported raw scores.

| DRIFE D Maar                         | TOWN   |           | le B.4             | Constant             |   | Complete   |        |                  |
|--------------------------------------|--|-----------|--------------------|----------------------|---|--|--------|------------------|
| BRIEF-P Mean                         | I Scores 1   | or varie  | ous Dow            | n Syndro             | me (DS) :   | Samples  |        |                  |
| Reference                            | Pritchard,<br>Kalback,<br>McCurdy,<br>& Capone<br>(2015) <sup>ª</sup>  |           | uer et al.<br>)14) | Lee et al.<br>(2011) | Loveall,<br>Conners,<br>Tungate,<br>Hahn,<br>& Osso<br>(2017) | Wilde &<br>Oliver<br>(2017)  |        | et al.<br>15)    |
| Rater (parent or teacher)            | Parent   | Parent    | Teacher            | Parent               | Parent  | Parent   | Parent | Parent           |
| n                                    | 24   | 25        | 19                 | 26                   | 22  | 17   | 19     | 10               |
| Scale/index/composite                |  |           |                    |                      |   |  |        |                  |
| Inhibit                              | —  | 59.76     | 63.90              | 56.60                | 56.00   | 66.00  | 56.00  | 53.00            |
| Shift                                | —  | 54.72     | 55.50              | 56.20                | 51.60   | 55.30  | 53.00  | 48.00            |
| Emotional Control                    | —  | 49.88     | 55.20              | 49.80                | 48.10   | 51.00  | 47.50  | 48.50            |
| Working Memory                       | —  | 67.08     | 71.10              | 68.50                | 65.60   | 74.60  | 63.30  | 60.30            |
| Plan/Organize                        | —  | 60.76     | 65.80              | 61.00                | 57.20   | 64.20  | 61.50  | 57.60            |
| Inhibitory Self-Control Index (ISCI) | 48.00  | 56.92     | 61.30              | 54.00                | 52.60   | —  | —      |                  |
| Flexibility Index (FI)               | 47.00  | 53.28     | 55.90              | 53.40                | 49.80   | —  |        |                  |
| Emergent Metacognition Index (EMI)   | 59.00  | 67.08     | 66.80              | 66.70                | 63.30   | —  | —      |                  |
| Global Executive Composite (GEC)     | —  | 62.32     | 66.20              | 61.00                | 58.30   | —  | 58.00  | 54.00            |
| Reference                            | Daunhaue<br>Gerlach-<br>McDonale<br>Will, & Fid<br>(2017) <sup>t</sup> | d,<br>ler | d'Ardhuy           | y et al. (2011       | ō) <sup>b</sup>   | Nelson,<br>Crawford,<br>Reid, Moss,<br>& Oliver<br>(2017) <sup>b</sup> | _      |                  |
| Rater (parent or teacher)            | Parent   | Par       | rent Pare          | nt Parent            | Parent  | Parent   |        |                  |
| n                                    | 36   | 3         | 4 34               | 27                   | 26  | 20   |        |                  |
| Scale/index/composite                |  |           |                    |                      |   |  |        | score<br>studies |
| Inhibit                              | 62.00  | -         |                    | —                    | —   | 51.00  | 58     | 3.15             |
| Shift                                | 54.00  | _         |                    | _                    |   | 57.00  | 53     | 3.83             |
| Emotional Control                    | 52.00  | -         |                    | _                    |   | 49.00  | 50     | D.10             |
| Working Memory                       | 70.00  | _         |                    | _                    |   | 58.00  | 66     | 5.48             |
| Plan/Organize                        | 62.00  | -         |                    | _                    |   | 53.00  | 60     | ).29             |
| Inhibitory Self-Control Index (ISCI) | —  | -         |                    | —                    | _   | —  | 55     | 5.00             |
| Flexibility Index (FI)               | _  | -         |                    | _                    | _   | _  | 5      | 1.92             |
| Emergent Metacognition Index (EMI)   | —  | _         |                    | _                    |   |  | 64     | 1.57             |
| Global Executive Composite (GEC)     | _  | 57        | .50 55.5           | 50.25                | 49.25   | _  | 5      | 7.25             |

 Table B.4

 BRIEF-P Mean T Scores for Various Down Syndrome (DS) Samples

 $^{\rm a}{\cal T}$  scores computed from reported item means.  $^{\rm b}{\cal T}$  scores computed from reported raw scores.

| BRIEF-P Mean TS                      | Scores for Variou                                 | s Speech | /languag                  | e Impairı | ment (SL    | l) Sampl | es                       |
|--------------------------------------|---|----------|---------------------------|-----------|-------------|----------|--------------------------|
| Reference                            | Vugs, Hendriks,<br>Cuperus, &<br>Verhoeven (2014) |          | baulding, &<br>lan (2013) | Wittke, o | & Spaulding | g (2018) |                          |
| Rater (parent or teacher)            | Parent  | Parent   | Teacher                   | Teacher   | Teacher     | Teacher  | -                        |
| n                                    | 58  | 19       | 19                        | 31        | 23          | 23ª      |                          |
| Scale/index/composite                |   |          |                           |           |             |          | M T score across studies |
| Inhibit                              | 58.89   |          | _                         | _         | _           | _        | 58.89                    |
| Shift                                | 54.81   | _        | _                         | _         | _           | _        | 54.81                    |
| Emotional Control                    | 54.83   |          | _                         | _         |             | _        | 54.83                    |
| Working Memory                       | 63.94   |          | _                         |           | _           | _        | 63.94                    |
| Plan/Organize                        | 55.23   | _        | _                         | _         | _           | _        | 55.23                    |
| Inhibitory Self-Control Index (ISCI) | —   | 53.84    | 56.00                     | _         | _           | _        | 54.92                    |
| Flexibility Index (FI)               |   | 53.16    | 55.63                     | —         | —           | —        | 54.40                    |
| Emergent Metacognition Index (EMI)   | _   | 58.11    | 62.47                     | _         | _           | _        | 60.29                    |
| Global Executive Composite (GEC)     | 59.92   | 55.53    | 59.95                     | 47.71     | 60.57       | 44.83    | 54.75                    |

# Table B.5 BRIEF-P Mean T Scores for Various Speech/language Impairment (SLI) Samples

<sup>a</sup>Articulation disorder sample.

# Table B.6BRIEF-P Mean T Scores for Various Preterm Birth Samples

| Reference                            | BRIEF-P <sup>a,b</sup> | O'Meagher,<br>Kemp, Norris,<br>Anderson, &<br>Skilbeck (2017) |         | Loe &<br>Feldman<br>(2016) | eldman Andridge, & |        | Adams,<br>Feldman,<br>Huffman, &<br>Loe (2015) |        | Alduncin,<br>Huffman,<br>Feldman,<br>& Loe<br>(2014) |
|--------------------------------------|------------------------|---|---------|----------------------------|--------------------|--------|--|--------|--|
| Rater (parent or teacher)            | Parent                 | Parent  | Teacher | Parent                     | Parent             | Parent | Parent   | Parent | Parent   |
| <u></u>                              | 34                     | 81  | 105     | 82                         | 10                 | 31     | 20   | 34     | 70   |
| Scale/index/composite                |                        |   |         |                            |                    |        |  |        |  |
| Inhibit                              | 58.00                  | 52.50   | 50.92   | _                          | _                  | _      |  |        |  |
| Shift                                | 56.75                  | 49.63   | 47.48   | _                          | _                  | _      |  |        |  |
| Emotional Control                    | 54.25                  | 50.90   | 46.15   | _                          | _                  | _      |  | _      |  |
| Working Memory                       | 63.75                  | 55.48   | 54.09   | _                          | _                  | _      |  | _      |  |
| Plan/Organize                        | 56.00                  | 51.62   | 52.92   | _                          | _                  |        | _  |        |  |
| Inhibitory Self-Control Index (ISCI) | 56.00                  | 51.88   | 48.86   | _                          | _                  | _      |  | _      |  |
| Flexibility Index (FI)               | 56.25                  | 49.99   | 46.92   | _                          | _                  | _      | _  | _      |  |
| Emergent Metacognition Index (EMI)   | 61.25                  | 54.23   | 53.87   |                            |                    |        |  |        |  |
| Global Executive Composite (GEC)     | 59.75                  | _   | _       | 54.10                      | 45.40              | 56.20  | 64.65  | 48.48  | 54.30  |

| Reference                            | Baro   | n et al. (2 | 014)   | Loe,<br>Feldman,<br>& Huffman<br>(2014) | Roberts,<br>Lim, Doyle,<br>& Anderson<br>(2011) | Ahrc   | ron, Erickson,<br>pnovich, Baker,<br>.itman (2011) |        |                             |
|--------------------------------------|--------|-------------|--------|---|---|--------|--|--------|-----------------------------|
| Rater (parent or teacher)            | Parent | Parent      | Parent | Parent                                  | Parent  | Parent | Parent   | Parent | -                           |
| n                                    | 397    | 196         | 72     | 66                                      | 195   | 60     | 22   | 38     |                             |
| Scale/index/composite                |        |             |        |   |   |        |  |        | M T score<br>across studies |
| Inhibit                              | 47.69  | 47.53       | 47.43  |   | _   | 52.00  | 50.90  | 52.70  | 51.09                       |
| Shift                                | 46.77  | 47.12       | 46.29  | _                                       | _   | 50.20  | 49.00  | 51.00  | 49.60                       |
| Emotional Control                    | 46.64  | 46.78       | 45.49  | _                                       |   | 47.00  | 43.50  | 49.30  | 47.98                       |
| Working Memory                       | 49.69  | 50.11       | 49.40  | _                                       |   | 54.60  | 53.70  | 55.20  | 53.99                       |
| Plan/Organize                        | 47.76  | 48.00       | 47.65  | _                                       | _   | 51.60  | 50.70  | 52.20  | 50.69                       |
| Inhibitory Self-Control Index (ISCI) | 46.89  | 47.04       | 46.19  | _                                       | _   | 49.80  | 47.10  | 51.70  | 49.58                       |
| Flexibility Index (FI)               | 46.27  | 46.53       | 45.33  | _                                       |   | 48.30  | 45.60  | 50.10  | 48.55                       |
| Emergent Metacognition Index (EMI)   | 48.82  | 49.13       | 48.75  | _                                       |   | 53.00  | 52.40  | 53.40  | 52.62                       |
| Global Executive Composite (GEC)     | 47.38  | 47.79       | 46.81  | 54.30                                   | 54.60   | 51.60  | 49.70  | 52.80  | 50.83                       |

 $^{a}\mbox{Appears}$  in Gioia, Espy, & Isquith (2003).  $^{b}\mbox{T}$  scores computed from reported item means.

# Table B.7 BRIEF-P Mean T Scores for Various Traumatic Brain Injury (TBI) Samples

| Reference                            |        | we,<br>a, Babl, &<br>n (2013) |       | Karver et |        |        |                             |
|--------------------------------------|--------|-------------------------------|-------|-----------|--------|--------|-----------------------------|
| Rater (parent or teacher)            | Parent | Parent                        | Parer |           | Parent | Parent | -                           |
| n                                    | 19     | 16                            | 63    | 63        | 23     | 23     |                             |
| Scale/index/composite                |        |                               |       |           |        |        | M T score<br>across studies |
| Inhibit                              | _      | _                             | _     |           |        | _      |                             |
| Shift                                |        | _                             | _     | _         |        | _      |                             |
| Emotional Control                    | _      | _                             | _     |           |        | _      |                             |
| Working Memory                       | _      | _                             | _     |           |        | _      |                             |
| Plan/Organize                        |        | —                             | _     |           |        | —      |                             |
| Inhibitory Self-Control Index (ISCI) | 51.21  | 53.87                         | _     | _         | _      | _      | 52.54                       |
| Flexibility Index (FI)               | 50.16  | 49.31                         | _     |           |        | _      | 49.74                       |
| Emergent Metacognition Index (EMI)   | 50.18  | 54.88                         |       |           |        | _      | 52.53                       |
| Global Executive Composite (GEC)     | 50.89  | 53.88                         | 50.0  | 2 52.24   | 53.68  | 59.63  | 53.39                       |

| Table B.8           BRIEF-P Mean T Scores for Various Clinical Samples |              |                                   |        |   |            |   |  |                               |  |  |  |
|--|--------------|-----------------------------------|--------|---|------------|---|--|-------------------------------|--|--|--|
| Reference  | Ġrai         | eta &<br>nero<br>15) <sup>⊾</sup> | et     | Skogan<br>et al.<br>(2015) <sup>▶</sup> |            | hard,<br>back,<br>urdy,<br>pone<br>15)° | Nelson,<br>Crawford,<br>Reid, Moss, Wilde &<br>& Oliver Oliver<br>(2017) <sup>b</sup> (2017) |                               | Holt, Beer,<br>Kronenberger,<br>Pisoni, &<br>Lalonde<br>(2012) |  |  |
| Rater (parent or teacher)  | Parent       | Parent                            | Parent | Parent                                  | Parent     | Parent                                  | Parent   | Parent                        | Parent   |  |  |
| Sample   | ADHD/<br>ODD | ODD                               | ODD    | Anxiety                                 | DS+<br>ASD | DS+<br>DBD                              | Cornelia<br>de Lange<br>syndrome   | Smith–<br>Magenis<br>syndrome | Deaf with<br>cochlear<br>implant                               |  |  |
| <u>n</u>   | 10           | 51                                | 39     | 48                                      | 67         | 98                                      | 25   | 13                            | 45   |  |  |
| Scale/index/composite  |              |                                   |        |   |            |   |  |                               |  |  |  |
| Inhibit  | 28.10        | 22.96                             | 56.00  | 50.75                                   | —          | —                                       | 56.00  | 77.92                         | 55.00  |  |  |
| Shift  | 13.10        | 13.10                             | 48.75  | 53.75                                   | _          |   | 64.75  | 66.92                         | 53.00  |  |  |
| Emotional Control  | 13.30        | 12.76                             | 57.00  | 54.25                                   | —          | _                                       | 58.50  | 71.85                         | 51.00  |  |  |
| Working Memory   | 26.50        | 22.36                             | 53.75  | 53.75                                   |            | _                                       | 63.75  | 81.00                         | 54.72  |  |  |
| Plan/Organize  | 15.20        | 13.52                             | 52.50  | 49.75                                   |            | _                                       | 56.00  | 72.54                         | 51.00  |  |  |
| Inhibitory Self-Control Index (ISCI)                                   | 41.40        | 35.72                             | 57.25  | 52.25                                   | 65.50      | 74.00                                   |  | _                             |  |  |  |
| Flexibility Index (FI)   | 26.40        | 25.86                             | 53.25  | 53.25                                   | 62.25      | 60.75                                   | _  | —                             |  |  |  |
| Emergent Metacognition Index (EMI)                                     | 41.70        | 35.88                             | 53.25  | 52.25                                   | 82.50      | 76.00                                   | _  | _                             |  |  |  |
| Global Executive Composite (GEC)                                       | 96.30        | 84.70                             | _      | _                                       | _          | —                                       | —  | —                             | 53.81  |  |  |

Note. ADHD = attention-deficit hyperactivity disorder; ODD = oppositional defiant disorder; ASD = autism spectrum disorder; DS = Down syndrome; DBD = disruptive behavior syndrome.

 $^{\mathrm{a}}\mathit{T}$  scores computed from reported item means.  $^{\mathrm{b}}\mathit{T}$  scores computed from reported raw scores

# Appendix C:

**Interrater Statistics** 

# Table C.1 BRIEF-P Parent and Teacher Interrater T Score Differences by Significance Level Significance level

|                                      | Significance level |       |       |       |     |  |  |  |  |
|--------------------------------------|--------------------|-------|-------|-------|-----|--|--|--|--|
| Scale/index/composite                | ns                 | .20   | .10   | .05   | .01 |  |  |  |  |
| Inhibit                              | 0-14               | 15-19 | 20-23 | 24-30 | 31+ |  |  |  |  |
| Shift                                | 0-14               | 15-18 | 19-22 | 23-29 | 30+ |  |  |  |  |
| Emotional Control                    | 0-15               | 16-19 | 20-23 | 24-30 | 31+ |  |  |  |  |
| Working Memory                       | 0-15               | 16-20 | 21-24 | 25-32 | 33+ |  |  |  |  |
| Plan/Organize                        | 0-16               | 17-21 | 22-25 | 26-34 | 35+ |  |  |  |  |
| Inhibitory Self-Control Index (ISCI) | 0-15               | 16-19 | 20-23 | 24-30 | 31+ |  |  |  |  |
| Flexibility Index (FI)               | 0-14               | 15-19 | 20-23 | 24-30 | 31+ |  |  |  |  |
| Emergent Metacognition Index (EMI)   | 0-16               | 17-20 | 21-24 | 25-32 | 33+ |  |  |  |  |
| Global Executive Composite (GEC)     | 0-15               | 16-20 | 21-24 | 25-32 | 33+ |  |  |  |  |

*Note. ns* = not significant.

#### Table C.2

# Percentages of the Interrater Sample That Obtained Various BRIEF-P T-Score Differences

|  | BRIEF-P scale/index/composite |       |                      |                   |                   |      |      |      |      |  |  |  |
|--|-------------------------------|-------|----------------------|-------------------|-------------------|------|------|------|------|--|--|--|
| T-score difference                                   | Inhibit                       | Shift | Emotional<br>Control | Working<br>Memory | Plan/<br>Organize | ISCI | FI   | EMI  | GEC  |  |  |  |
| Parent more than 20 <i>T</i> -score points > teacher | 3.6                           | 3.2   | 4.4                  | 5.0               | 7.0               | 3.9  | 4.2  | 5.5  | 3.9  |  |  |  |
| Parent 10-20 T-score points > teacher                | 16.3                          | 13.3  | 13.9                 | 13.6              | 12.2              | 15.5 | 13.4 | 10.6 | 14.6 |  |  |  |
| Parent and teacher within $\pm 10$ T-score points    | 60.0                          | 64.3  | 58.9                 | 61.3              | 58.6              | 61.1 | 62.9 | 64.0 | 58.4 |  |  |  |
| Parent 10-20 T-score points < teacher                | 14.7                          | 12.7  | 16.9                 | 12.2              | 14.3              | 14.0 | 13.6 | 11.9 | 16.0 |  |  |  |
| Parent more than 20 <i>T</i> -score points < teacher | 5.1                           | 6.6   | 6.0                  | 8.1               | 7.5               | 5.2  | 6.4  | 7.9  | 6.8  |  |  |  |

Note. N = 302. ISCI = Inhibitory Self-Control Index; FI = Flexibility Index; EMI = Emergent Metacognition Index; GEC = Global Executive Composite.

| Table C.3           BRIEF-P Parent and Teacher Interrater Correlations |       |        |      |         |      |            |      |  |  |  |
|--|-------|--------|------|---------|------|------------|------|--|--|--|
|  |       | Parent |      | Teacher |      | Mean       |      |  |  |  |
| <i>T</i> -score difference   | r     | М      | SD   | М       | SD   | difference | d    |  |  |  |
| Inhibit  | .25** | 49.28  | 9.62 | 49.99   | 9.97 | -0.71      | 0.07 |  |  |  |
| Shift  | .28** | 49.45  | 9.71 | 50.00   | 9.98 | -0.55      | 0.06 |  |  |  |
| Emotional Control  | .25** | 49.51  | 9.91 | 50.08   | 9.93 | -0.57      | 0.06 |  |  |  |
| Working Memory   | .14*  | 49.08  | 9.56 | 50.06   | 9.89 | -0.98      | 0.10 |  |  |  |
| Plan/Organize  | .06   | 49.36  | 9.71 | 49.99   | 9.95 | -0.63      | 0.06 |  |  |  |
| Inhibitory Self-Control Index (ISCI)                                   | .24** | 49.27  | 9.72 | 49.86   | 9.95 | -0.59      | 0.06 |  |  |  |
| Flexibility Index (FI)   | .26** | 49.47  | 9.87 | 49.99   | 9.97 | -0.52      | 0.05 |  |  |  |
| Emergent Metacognition Index (EMI)                                     | .11   | 49.13  | 9.48 | 50.05   | 9.95 | -0.92      | 0.09 |  |  |  |
| Global Executive Composite (GEC)                                       | .17** | 49.11  | 9.74 | 50.05   | 9.99 | -0.94      | 0.10 |  |  |  |

*Note. N* = 302.

\*p < .05. \*\*p < .01.





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