

# Comprehensive Executive Function Inventory

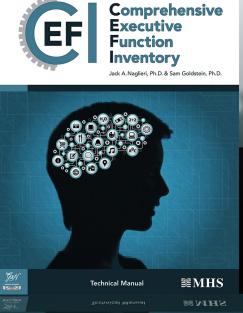


Jack A. Naglieri, Ph.D. & Sam Goldstein, Ph.D.



Executive Function Scores You Can Trust!

Provides a Comprehensive Evaluation of Executive Function Strengths and Weaknesses in Youth Aged 5 to 18 Years.







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# **About the CEFI™**

The Comprehensive Executive Function Inventory™ (CEFI™) is a comprehensive behavior rating scale of executive function strengths and weaknesses in youth aged 5 to 18 years. Executive function is important for

executive function strengths and weaknesses in youth aged 5 to 18 years. Executive function is important for problem solving and reasoning. Problems with executive function can often make simple tasks challenging. Assessing a youth's executive function is an important step to formulate a diagnosis and treatment plan.

### AGE

5-18 years

### **ADMINISTRATION**

Parent Form

Teacher Form Self-Report Form (ages 12-18)

### **ADMINISTRATION TIME**

15 minutes

### **NUMBER OF ITEMS**

100

### **FORMATS**

Paper-and-pencil (QuikScore™) Software Online

### **TRANSLATIONS**

Spanisl

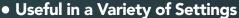
# QUALIFICATION LEVEL

B-level

## Scores You Can Trust

The most representative nationally standardized behavior rating scale of executive function. The large scale normative sample is representative of the U.S. population on a number of key demographic variables including U.S. Census region.

- A Comprehensive Evaluation of Executive Function Behaviors
  Strengths and weaknesses in executive function scores are measured across nine CEFI Scales.
- Implement Intervention Strategies
   When scores on the CEFI Scales are below average, intervention strategies are provided within the Interpretive Report.
- Easy to understand Reports and Findings Items are consistent across all rater forms (Parent, Teacher & Self-Report) providing reports which can be easily communicated.



Diagnostic evaluations, intervention strategies, response to intervention programs, individualized educational plans, treatment and monitoring plans, and in research environments.



Figure 1.0

# **EXECUTIVE FUNCTION**

(Full Scale)



# **Attention**

Measures how well a youth can avoid distractions, concentrate on tasks, and sustain attention



# **Inhibitory Control**

Reflects a youth's control over behavior or impulses



# **Planning**

Reflects how well a youth develops and implements strategies to accomplish tasks



# **Emotion Regulation**

Measures a youth's control and management of emotions



### **Initiation**

Describes a youth's ability to begin tasks or projects without being prompted



# **Self-Monitoring**

Describes a youth's self-evaluation of his/her performance or behavior



# **Flexibility**

Describes how well a youth can adapt to circumstances, including problem solving ability



# **Organization**

Describes how well a youth manages personal effects, work, or multiple tasks



# **Working Memory**

Reflects how well a child/youth can keep information in mind that is important for knowing what to do and how to do it, including remembering important things, instructions. & steps

# How the **CEFI**® works

The CEFI is the most representative nationally standardized behavior rating scale of executive function. Reliability and validity data indicate it has strong psychometric qualities. Data from our large normative sample reveal that the behaviors which are rated on the CEFI represent a single construct: executive function. The CEFI was developed to measure a wide spectrum of behaviors associated with executive function. In addition to the Full Scale score, the CEFI utilizes nine scales to pinpoint targets for intervention (See Figure 1.0).



With 100 items on a Likert-type scale–90 are distributed among the CEFI Scales and 10 on the Positive and Negative Impression Scales – the CEFI offers Parent (5 to 18 years), Teacher (5 to 18 years), and Self-Report (12 to 18 years) Forms. The CEFI can be administered online, via email link, or with paper. Following administration, CEFI forms can be scored online, using the MHS QuikScore™ Format or by MHS Scoring Software.



# Measuring Strengths and Weaknesses Impact Intervention

CEFI results provide information not only on overall level of executive function, but also on specific strengths and weaknesses among the nine CEFI Scales. In this way, it is possible to pinpoint targets for intervention even if scores on all of the CEFI Scales are uniformly below average. In the Interpretive Report, intervention strategies are provided for areas of executive function where an individual scored below average. The analysis indicates whether there are strengths and weaknesses, such that a child's strengths could be utilized when targeting executive function behaviors that the child or youth has trouble with.

# 3 Valuable Reports Available

Generate up to three user-friendly reports using the MHS Scoring Software or the MHS Online Assessment Center.

**1.** The *Interpretive Report* provides information about a single administration.

To request full sample reports visit: www.info.mhs.com/cefi

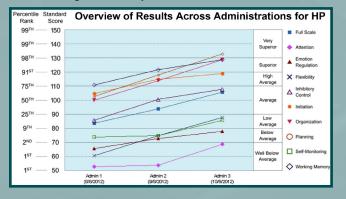
Scores in Relation to the Norm and the Individual								
Full Scale								
Standar	rd Score	90% Confide	ence Interval	Percent	ile Rank	Classi	ification	
83		-08	-86	13 Low Average		verage		
CEFI Scales								
Scale Standard Sco		90% Confidence Interval	Percentile Rank	Classification	Difference from Youth's Average (84.9)	Statistically Significant? (p < .05)	Executive Function Strength/ Weakness	
Attention	83	78-90	13	Low Average	-1.9	No	-	
Emotion Regulation	100	93-107	50	Average	15.1	Yes	-	
Flexibility	97	89-106	42	Average	12.1	Yes	-	
Inhibitory Control	79	74-89	8	Below Average	-5.9	No	-	
Initiation	79	74-89	8	Below Average	-5.9	No	-	
Organization	79	74-87	8	Below Average	-5.9	No	-	
Planning	90	84-97	25	Average	5.1	No	-	
Self-Monitoring	91	84-100	27	Average	6.1	No		
Working Memory	66	62-77	1	Well Below Average	-18.9	Yes	Weakness	

# **Intervention Strategies for Working Memory**

- Help the child to ...
- Provide feedback on ...
- Model strategies that ...

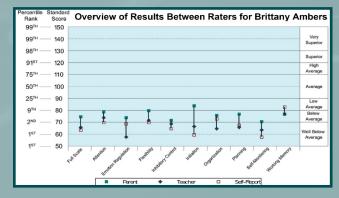


2. The Progress Monitoring and Treatment
Effectiveness Report combines results from up to four
ratings over time by the same rater.





**3.**The *Comparative Report* provides a multi-rater perspective by combining results from up to five different raters.



# The Most Representative Executive Function Behavior Rating Scale

Providing scores you can depend on, the CEFI is the most representative nationally standardized behavior rating scale of executive function. The large scale normative sample was stratified to match the U.S. Census on a number of key demographic variables including region, race/ethnicity, and parental education level (see Figure 2.0). The proportion of the demographic variables in the normative samples fell within 1% of Census targets. At each year of age (Parent and Teacher 5–18 yrs, Self-Report 12–18 yrs), 50 males and 50 females

were collected for each form, resulting in 1,400 rated youth (age M=11.5, SD=4.0) for the parent and teacher normative samples and 700 youth

for the self-report (age M=15.0, SD=2.0). Additionally, the normative samples included ratings of children who had a clinical diagnosis, or were eligible to receive special educational services according to IDEA criteria (parent = 10.9%, teacher = 12.7%, self-report = 9.7%).

Race/Ethnic Distribution: CEFI Normative Samples							
Race/Ethnicity	Parent (%)	Teacher (%)	Self-Report (%)	U.S. Population (%)			
Hispanic	22.0	22.0	22.0	21.1			
Asian	4.0	3.8	4.0	4.2			
Black	14.0	14.0	14.0	13.9			
White	56.0	56.5	56.0	56.5			
Other	4.0	3.7	4.0	4.2			
U.S. Region Distribution:	U.S. Region Distribution: CEFI Normative Samples						
Region	Parent (%)	Teacher (%)	Self-Report (%)	U.S. Population (%)			
Northeast	16.0	16.1	16.0	17.0			
Midwest	22.1	22.0	22.0	21.7			
South	37.9	37.9	38.0	37.2			
West	24.1	24.0	24.0	24.1			
Parental Education Level Distribution: CEFI Normative Samples							
Parental Education Level		Parent (%)	Self-Report (%)	U.S. Population (%)			
No high school diploma		14.1	13.9	14.7			
High school diploma/GED		27.9	28.0	28.5			
Some college or associate's	degree	29.9	30.0	28.9			
Bachelor's degree		18.0	18.1	17.6			
Graduate or professional degree		10.1	10.0	10.3			

Figure 2.0



# Dependable, Reliable, and Valid

# **Internal Consistency Reliability**

- Cronbach's alpha values for the Full Scale and the nine CEFI Scales were strong:
  - o Parent Full Scale α=.98 (CEFI Scales median= .89)
  - o Teacher Full Scale  $\alpha$ = .99 (CEFI Scales median= .93)
  - o Self-Report Full Scale α=.97 (CEFI Scales median= .80)

# **Test-Retest Reliability**

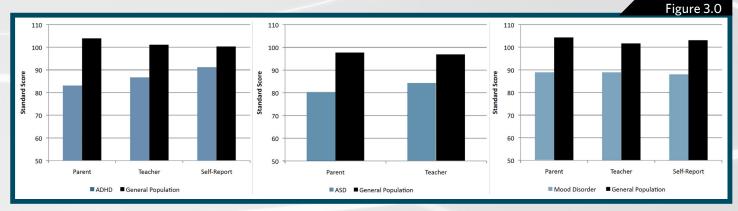
- Interval between test administrations: 7 to 30 days.
- Excellent test-retest reliability was found:
  - o Parent Full Scale r=.91 (CEFI Scales median= .87)
  - o Teacher Full Scale r = .88 (CEFI Scales median = .88)
  - o Self-Report Full Scale r=.77 (CEFI Scales median= .79)

# O of Census Targets

# Mean Score

Differences by Group

Figure 3.0 shows mean CEFI Full Scale comparisons between clinical samples (ADHD, ASD, Mood Disorder), and matched general population samples. Youth from the three clinical groups were expected to have executive function deficits when compared to general population samples. All contrasts were significant with medium to large effect sizes (d = -0.62 to -1.59). Overall, results were consistent with the expected effects. The CEFI is sensitive to differences in behaviors between the general population and these clinical groups.



# Also Available from

Jack A. Naglieri, Ph.D., and Sam Goldstein, Ph.D.



W-HOEFHC Hardcover \$349.00

W-HOEFSC Softcover \$119.00

# The Handbook of Executive Functioning

The Handbook of Executive Functioning cuts through the confusion, analyzing both the whole and its parts in comprehensive, practical detail for scholar and clinician alike. Background chapters examine influential models of EF, tour the brain geography of the executive system, and pose salient developmental questions.

A section on practical implications relates early deficits in executive functioning to ADD and other disorders in children, and considers autism and later-life dementias from an EF standpoint. Further chapters weigh the merits of widely used instruments for assessing executive functioning and review interventions for its enhancement, with special emphasis on children and adolescents.

# Now Available!

Measure executive function in **adults** 18 and older.



B-Level

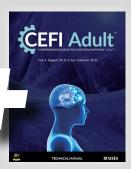
Prices are subject to change

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# **CEFI** and **CEFI Adult**Bundles







ONLIN	E	
CEF001	CEFI Complete Online Kit (Manual & 25 CEFI Self-Report/Parent/Teacher Online Forms)	\$385.00
CEF003	CEFI (5-18 Years) Parent Online Form	\$4.25 ea.
CEF004	CEFI (5-18 Years) Teacher Online Form	\$4.25 ea.
CEF002	CEFI (12-18 Years) Self-Report Online Form	\$4.25 ea.
CEF015	Spanish CEFI Complete Online Kit (Manual & 25 Spanish CEFI Self-Report/Parent/Teacher Online Forms)	\$385.00
CEF017	Spanish CEFI (5-18 Years) Parent Online Form	\$4.25 ea.
CEF018	Spanish CEFI (5-18 Years) Teacher Online Form	\$4.25 ea.
CEF016	Spanish CEFI (12-18 Years) Self-Report Online Form	\$4.25 ea.

	WARE	
CEF005	CEFI Complete Scoring Software Kit (Manual & 25 CEFI Self-Report/Parent/Teacher Response Forms)	\$659.50
CEF006	CEFI Software Scoring Program (USB Key)	\$357.00
CEF007	<b>CEFI Software Scoring Program</b> (Installation Only)	\$357.00
CEF009	CEFI (5-18 Years) Parent Response Forms (25/pkg)	\$73.50
CEF010	<b>CEFI (5-18 Years) Teacher Response Forms</b> (25 pkg)	\$73.50
CEF008	CEFI (12-18 Years) Self-Report Response Forms (25 pkg)	\$73.50
CEF019	Spanish CEFI Complete Scoring Software Kit (Manual, CEFI Scoring Software Program (USB Key) & 25 Spanish CEFI Self-Report/Parent/ Teacher Response Forms	\$644.50
CEF021	Spanish CEFI (5-18 Years) Parent Response Forms (25/pkg)	\$73.50
CEF022	Spanish CEFI (5-18 Years) Teacher Response Forms (25/pkg)	\$73.50
CEF020	Spanish CEFI (12-18 Years) Self-Report Response Forms (25/pkg)	\$73.50
	SCORED	
CEF011	CEFI Complete Handscored Kit (Manual & 25 CEFI Self-Report/Parent/Teacher QuikScore Forms)	\$297.00
CEF013	CEFI (5-18 Years) Parent QuikScore Forms (25 pkg)	\$72.00
	CFFL (5-18 Vears) Teacher QuikScore Forms	

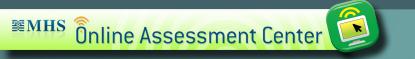
CEF013	CEFI (5-18 Years) Parent QuikScore Forms (25 pkg)	\$72.00
CEF014	CEFI (5-18 Years) Teacher QuikScore Forms (25 pkg)	\$72.00
CEF012	CEFI (12-18 Years) Self-Report QuikScore Forms (25 pkg)	\$72.00
CEF023	Spanish CEFI Complete Handscored Kit (Manual & 25 Spanish CEFI Self-Report/Parent/ Teacher QuikScore Forms)	\$297.00
CEF025	Spanish CEFI (5-18 Years) Parent QuikScore Forms (25 pkg)	\$72.00
CEF026	Spanish CEFI (5-18 Years) Teacher QuikScore Forms (25 pkg)	\$72.00
CEF024	Spanish CEFI (12-18 Years) Self-Report QuikScore Forms (25 pkg)	\$72.00
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CEF000	CEFI Manual	\$102.00
<b>秀 ∱</b> LIFE	SPAN EXECUTIVE FUNCTION SOLUTIONS	
CEFA16	CEFI and CEFI Adult Bundle - Intro Special Online Kit (CEFI Manual, 25 CEFI Self-Report/Parent/ Teacher Online Forms & CEFI Adult Manual, 25 CEFI-Adult Self-Report/Observer Online Forms)	\$647.00
055415	CEFI and CEFI Adult Bundle - Intro Special Handscore Kit (CEFI Manual, 25 CEFI Self-Report/	<b>A</b> F07.00

CEFA17	Parent/Teacher Quilscore Forms & CEFI Adult Manual, 25 CEFI Adult Self-Report/Observer Quilscore Forms)	\$507.00
CEFA18	Spanish CEFI and CEFI Adult Bundle - Intro Special Online Kit (CEFI Manual, 25 CEFI Self-Report/ Parent/Teacher Online Forms & CEFI Adult Manual, 25 CEFI Adult Self-Report/Observer Online Forms)	\$647.00
CEFA19	Spanish CEFI and CEFI Adult Bundle - Intro Special Online Kit (CEFI Manual, 25 CEFI Self-Report/ Parent/Teacher Online Forms & CEFI Adult Manual,	\$507.00

<b>≈</b> MHS C	E/CPD TRAINING PROGRAM	
CEFCE1	CEFI CE Online Manual Quiz (3 CE Credits)	\$45.00
CEFCE2	CEFI Online Workshop (1.5 CE/CPD Credits)	\$25.00

25 CEFI Adult Self-Report/Observer Online Forms)



# Administer, Score, and Report the CEFI™

with the MHS Online Assessment Center

Improve **Productivity** and **Efficiency** without Compromising Quality or Accuracy.

# Why Use the CEFI™ Online?

- Save Time
  Fast, easy, and accurate administration with automated scoring.
- Assess from Anywhere
  View reports with an online connection.
- Improve Efficiency and Accuracy
  When items are absent prompts appear to ensure information is not missed.
- **User-Friendly**Easy to use interface for practitioners and respondents.
- Gain Information Easily
  Email a link to the form directly to the respondent.
- Tailored Organization
   Data can be customized to how you work.





# Earn CE/CPD Credits with the CEFI.

It is easy to earn CE/CPD credits quickly and online. Just study the manual or watch the online workshop, take and pass the online questionnaire, and a certificate is created for you!

Learn more at MHS.com/Learn



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