# McCloskey Executive Functions Scale (MEFS) Report

Student's Name: A Date of Birth: 03/01/2004

Gender: Female Date of Ratings: 03/29/2016

Grade: 6 Age: 12 years, 0 months

School: Middle Rater's Name: S

Executive Functions are neural mechanisms responsible for cueing, directing, and coordinating multiple aspects of perception, emotion, cognition, and action. The MEFS identifies strengths and deficits for multiple Executive Functions:

- Thirty-one Self-Regulation Executive Functions (SREFs) organized into seven overarching Self-Regulation Executive Function Clusters (SREF Clusters) across two Arenas of Involvement (Academic and Self/Social)
- Three facets of Self-Realization (Realization of Self, Realization of Others, and Self-Analysis)
- Two facets of Self-Determination (Goal Setting and Long-Term Planning)

Figure 1 shows the structure of the MEFS and the interpretive tables within this report that address the various Executive Function components.

#### Arenas of Involvement

The use of the 31 SREFs can vary depending on the context or Arena of Involvement. The MEFS assesses SREFs within two separate Arenas of Involvement:

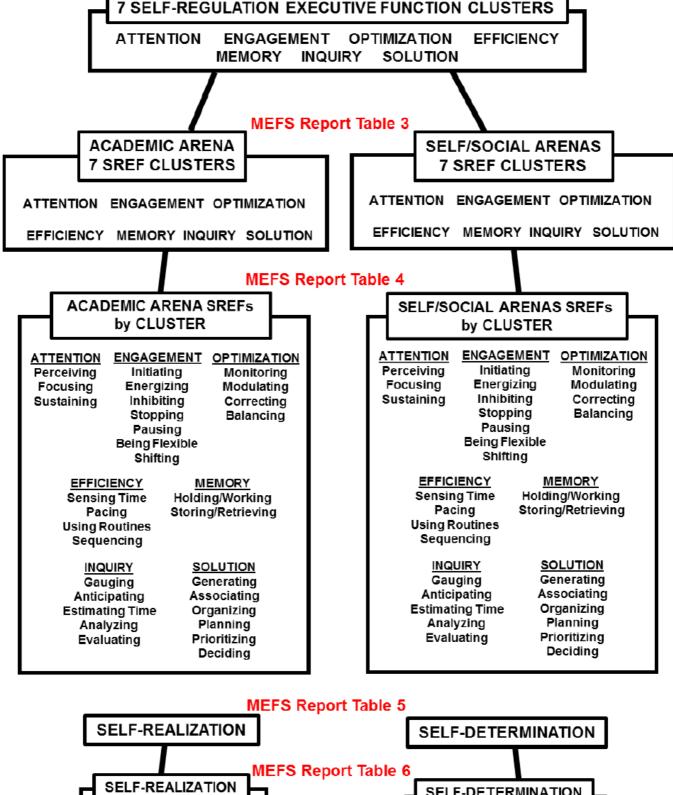
- The Academic Arena encompasses the use of self-regulation executive capacities to cue and direct efficient and effective production when engaged with school tasks, including participation in classroom instruction, completion of in-class projects and assignments, and test-taking and other forms of scholastic assessment.
- The Self/Social Arena encompasses the use of self-regulation executive capacities to cue and direct appropriate and effective interactions with others, as well as appropriate and effective self-control.

#### **Directive Executive Functions and Expressive Executive Skills**

Executive Functions can refer to two distinct but inter-related capacities that work in tandem: Directive Executive Functions and Expressive Executive Skills. For each of the 31 SREFs, the executive function (EF) becomes consciously aware of the need to cue and direct its executive skill (ES) counterpart. When cued by the EF, the ES in turn activates the parts of the brain that need to be used to consciously self-regulate. For example, executive control of Planning starts with the EF of consciously becoming aware of the need to make a plan. The Plan EF then cues the ES network which then activates the neural connections throughout various parts of the brain that are needed in order to create and implement a specific plan. EFs also monitor and evaluate the performance of the Plan ES.

# MEFS INTERPRETIVE STRUCTURE

MEFS Report Table 2



Distinguishing between Directive Executive Function Deficits and Expressive Executive Skill Deficits is important when planning and implementing interventions. An Expressive Executive Skill Deficit involves either a lack of knowledge about how to

Awareness of Self

Awareness of Others

Self-Analysis

SELF-DETERMINATION

**Goal Setting** 

Long-Term Planning

perform the skill or a lack of practice with performing the skill. A Directive Executive Function Deficit involves either a lack of awareness of when or a lack of awareness of how to effectively cue and engage the Expressive Executive Skill.

An individual may be capable of using an Expressive Executive Skill but fail to independently apply the skill due to inadequate development of the Directive Executive Function that cues it. For example, a teacher may observe that a student is able to sustain attention (adequate Expressive Executive Skill) but is lacking awareness of situations in which sustained attention is needed (inadequate Directive Executive Function). Alternately, a student may be lacking in both the Directive Executive Function and the corresponding Expressive Executive Skill, or possess both a well-developed Directive Executive Function and Expressive Executive Skill.

The distinction between Expressive Executive Skills and Directive Executive Functions is built into the rating system of the MEFS, as shown in Figure 2.

Figure 2 Ratings for Self-Regulation Functions and Corresponding Strengths and Deficits

5	Almost always does it on own without prompting	Executive Function Strength (EFS)
4	Frequently does it on own without prompting	Executive Function Strength (EFS)
3	Seldom does it on own without prompting	Executive Function Deficit (EFD)
2	Does it, but only after prompting	Executive Function Deficit (EFD)
1	Only does it with direct assistance	Executive Skill Deficit (ESD)
0	Unable to do even with assistance	Executive Skill Deficit (ESD)

For each SREF item, the rater makes a judgment about the efficiency of the student's use of that Executive Function. The ratings are categorized as an:

- Executive Function Strength (EFS) Ratings of 5 or 4 (see Figure 2) indicate that a student "almost always does it on own without prompting" or "frequently does it on own without prompting." Ratings of 5 or 4 represent an Executive Function Strength (EFS), that is, effective use of *both* the Expressive Executive Skill and the Directive Executive Function.
- Executive Function Deficit (EFD) Ratings of 3 or 2 indicate that a student "seldom does it on own without prompting" or "does it, but only after prompting." Ratings of 3 or 2 suggest that the Expressive Executive Skill is available and can be used, but that the student is not aware of when this skill is needed unless there is external prompting. Ratings of 3 or 2, therefore, represent a Directive Executive Function Deficit (EFD).
- Executive Skill Deficit (ESD) Ratings of 1 or 0 indicate that a student "only does it with direct assistance" or is "unable to do even with assistance." Ratings of 1 or 0 suggest that the Expressive Executive Skill needed for effective performance is so poorly developed or so underutilized that the student cannot function without assistance. Ratings of 1 or 0, therefore, represent an Expressive Executive Skill Deficit (ESD).

Frequency counts for SREF strengths and deficits are shown in Tables 2 through 4. Table 7 shows individual SREF item ratings.

#### **Self-Realization and Self-Determination**

In addition to the seven SREF Clusters, there are two higher-level executive capacities that influence Self-Regulation Executive Functions. They are the Self-Realization and Self-Determination Executive Functions. The MEFS rating system for the Self-Realization and Self-Determination Executive Functions differs from that of the rating system for the SREFs. The ratings for Self-Realization and Self-Determination items are based on the frequency with which behaviors associated with these Executive Functions are observed by the rater. A rating of "does this very often" may reflect an Executive Function Strength. A rating of "never does this" may reflect an Executive Function Deficit, depending on the age of the child. Behaviors reflecting Self-Realization and Self-Determination strengths are likely to be observed at least sometimes in children age 10 and older and are likely to be observed with greater frequency in children age 14 and older. Children below the age of 10 demonstrating Self-Realization and/or Self-Determination strengths are exhibiting advanced development of these capacities.

Tables 5 and 6 display frequency counts for the Self-Realization and Self-Determination Executive Functions strengths and deficits. Table 8 shows individual item ratings.

The results of teacher ratings on the MEFS School Age Teacher Form for A are presented in Tables 1 through 8 as follows:

- Table 1 displays the ratings of the pairs of items that comprise the Inconsistency Scale.
- Table 2 provides standard scores, percentile ranks, descriptive categories, and strength and deficit frequency counts for the 7 SREF Clusters.
- Table 3 provides standard scores, percentile ranks, descriptive categories, and strength and deficit frequency counts for the 7 SREF Clusters within the Academic and Self/Social Arenas.
- Table 4 shows the frequency of strengths and deficits for each of the 31 SREFs within the Academic and Self/Social Arenas.
- Table 5 shows standard scores, percentile ranks, descriptive categories and the frequency of strengths and deficits for the Self-Realization and Self-Determination Composites.
- Table 6 shows cumulative percentages and the frequency of strengths and deficits for the specific Self-Realization and Self-Determination Executive Functions.
- Table 7 shows the individual item ratings coded as strengths or deficits for each of the 31 SREFs within the Academic and Self/Social Arenas.
- Table 8 shows the individual item ratings coded as strengths or deficits (when age-appropriate) for the Self-Realization and Self-Determination Executive Functions.

### Validity Check Based on Results of the Inconsistency Scale

Ratings provided by S produced an Inconsistency Score of 1. Relative to the responding of the standardization sample, an Inconsistency Score of 1 represents a cumulative percentile <=96 and a classification of Acceptable. When the results are classified as "Questionable" or "Inconsistent," the examiner should review the differences in wording between the six pairs of items (see Table 1) for a reasonable explanation for the apparent inconsistent responses. Inconsistent responding may be due to noncompliance, carelessness, not reading the items, or not understanding the items. If the inconsistent responses cannot be logically explained, the teacher rating results for this examinee should be considered invalid.

**Table 1 Ratings of Inconsistency Scale Items** 

Item #	Pair	Item Wording	Rating
5	Pair 1	Sustains attention for school tasks until a task is completed.	1
40	Pair 1	Pays attention as long as needed to complete school tasks.	1
6	Pair 2	Sustains attention to others in social situations.	1
41	Pair 2	Pays attention as long as needed when talking or interacting with others.	0
7	Pair 3	Starts school work.	1
66	Pair 3	Gets started on school work.	1
8	Pair 4	Initiates socially appropriate interactions with other students.	2
67	Pair 4	Initiates socially appropriate interactions with others.	2
23	Pair 5	Willing to try a different way of doing school tasks when he or she gets stuck.	1
92	Pair 5	Accepts the need to try a different way to do school tasks when he or she gets stuck.	1
24	Pair 6	Accepts a good idea when it is what most others in a group want to do.	2
93	Pair 6	Can go along with a good idea when it is what others in a group want to do.	2

**Table 2 Self-Regulation Executive Functions Clusters** 

CLUSTER	T-Score	Percentile Rank	Descriptive Category	EFS*	EFD*	ESD*
ATTENTION	13	1	Extremely Low		1	5
ENGAGEMENT	15	1	Extremely Low		12	10
OPTIMIZATION	15	1	Extremely Low		7	7
EFFICIENCY	17	1	Extremely Low		3	11

MEMORY	27	3	Well Below Average	5	2
INQUIRY	21	1	Extremely Low	5	6
SOLUTION	24	1	Extremely Low	6	7

<sup>\*</sup> This column reports the number of items rated as this type of strength or deficit.

# Table 3 Self-Regulation Executive Function Clusters by Arena

CLUSTER	T-Score	Percentile Rank	Descriptive Category	EFS*	EFD*	ESD*
ACADEMIC ARENA						
ATTENTION	18	1	Extremely Low			3
ENGAGEMENT	15	1	Extremely Low		2	6
OPTIMIZATION	21	1	Extremely Low		2	4
EFFICIENCY	19	1	Extremely Low		2	8
MEMORY	25	2	Extremely Low		1	2
INQUIRY	23	1	Extremely Low		1	4
SOLUTION	25	1	Extremely Low			6
SELF/SOCIAL ARENA				•	•	
ATTENTION	12	1	Extremely Low		1	2
ENGAGEMENT	17	1	Extremely Low		10	4
OPTIMIZATION	13	1	Extremely Low		5	3
EFFICIENCY	16	1	Extremely Low		1	3
MEMORY	30	6	Well Below Average		4	
INQUIRY	21	1	Extremely Low		4	2
SOLUTION	26	2	Extremely Low		6	1

<sup>\*</sup> This column reports the number of items rated as this type of strength or deficit.

## Table 4 Self-Regulation Executive Functions within Clusters and by Arena

EXECUTIVE FUNCTION	Cumulative Percentile Range		ACADEMIC ARENA		,	SELF/SOCIAL ARENA	-
		EFS*	EFD*	ESD*	EFS*	EFD*	ESD*
ATTENTION		I	Extremely Lov	v	I	Extremely Lov	/
Perceiving	<= 1%			1			1
Focusing	<= 1%			1		1	
Sustaining	<= 1%			1			1
ENGAGEMENT		ĺ	Extremely Lov	v	ſ	Extremely Lov	I
Initiating	<= 1%			1		1	
Energizing	2% to 5%			1		1	
Inhibiting	2% to 5%			1		2	4
Stopping	2% to 5%		1			2	
Pausing	<= 1%			1		1	
Being Flexible	<= 1%			2		2	

Shifting	2% to 5%	1		1	
OPTIMIZATION		Extremely Lo	W	Extremely Low	/
Monitoring	<= 1%	1	1		2
Modulating	2% to 5%	1	1	3	
Correcting	<= 1%		1		1
Balancing	<= 1%		1	2	
EFFICIENCY		Extremely Lo	w	Extremely Low	/
Sensing Time	2% to 5%		1		1
Pacing	2% to 5%	1			1
Using Routines	<= 1%		7		1
Sequencing	2% to 5%	1		1	
MEMORY		Extremely Lo	w	Well Below Avera	age
Holding/Working	6% to 10%	1		1	
Storing/Retrieving	2% to 5%		2	3	
INQUIRY		Extremely Lo	w	Extremely Low	/
Guaging	2% to 5%		1	1	
Anticipating	2% to 5%		1	2	
Estimating Time	<= 1%		1		1
Analyzing	2% to 5%	1		1	
Evaluating	<= 1%		1		1
SOLUTION		Extremely Lo	w	Extremely Low	/
Generating	2% to 5%		1		1
Associating	2% to 5%		1	1	
Organizing	<= 1%		1	1	
Planning	<= 1%		1	2	
Prioritizing	2% to 5%		1	1	
Deciding	<= 1%	1	1	1	

<sup>\*</sup> This column reports the number of items rated as this type of strength or deficit.

### **Table 5 Self-Realization and Self-Determination Composites**

COMPOSITE	T-Score	Percentile Rank	Descriptive Category	EFS*	**	EFD*
SELF-REALIZATION	33	5	Well Below Average		6	5
SELF-DETERMINATION	31	4	Well Below Average		2	4

<sup>\*</sup> This column reports the number of items rated as this type of strength or deficit. Identified strengths for students below the age of 11 represent advanced development. Determination of deficits is based on age. Deficits are not identified for students below the age of 11.

#### Table 6 Self-Realization and Self-Determination Executive Functions

<sup>\*\*</sup> Ratings placed in the center column indicate that the item is neither a strength nor a deficit.

EXECUTIVE FUNCTION	Cumulative Percentile Range	EFS*	**	EFD*
SELF-REALIZATION		We	II Below Avera	age
Awareness of Self	2% to 5%		1	2
Awareness of Others	11% to 25%		4	1
Self-Analysis	2% to 5%		1	2
SELF-DETERMINATION		We	II Below Avera	age
Goal-Setting	6% to 10%		1	2
Long-Term Planning	6% to 10%		1	2

<sup>\*</sup> This column reports the number of items rated as this type of strength or deficit. Identified strengths for students below the age of 11 represent advanced development. Determination of deficits is based on age. Deficits are not identified for students below the age of 11.

## Table 7 Individual Item Ratings\* for Self-Regulation Executive Functions by Arena

ITEMS	Cumulative Percentile	ACADEMIC ARENA			SELF/SOCIAL ARENA		
	Range	EFS	EFD	ESD	EFS	EFD	ESD
ATTENTION			•				
Perceiving	<= 1%						
Aware with school tasks				1			
Aware in social interactions							1
Focusing	<= 1%			·			
Focused with school tasks				1			
Focused in social interactions						2	
Sustaining	<= 1%				<del>!</del>		•
Sustains with school tasks				1			
Sustains in social interactions							1
ENGAGEMENT							
Initiating	<= 1%						
Starts school tasks				1			
Starts social interactions						2	
Energizing	2% to 5%			ľ	!	•	•
Effortful with school tasks				1			
Effortful in social interactions						2	
Inhibiting	2% to 5%			·	1		•
Waits turn						2	
Thinks before acting							1
Refrains from aggression						2	
Inhibits thoughtless comments							1

<sup>\*\*</sup> Ratings placed in the center column indicate that the item is neither a strength nor a deficit.

Inhibits in frustrating situations						1
Inhibits with challenging school tasks			1			
Inhibits in social situations						0
Stopping	2% to 5%	ı	1	ļ	1	
Stops talking about one thing					3	
Stops playing a game		2				
Stops annoying others					2	
Pausing	<= 1%	ı	1	I.	1	
Returns to school tasks			1			
Returns to social interactions					2	
Being Flexible	<= 1%		•		•	
Tries different ways for school tasks			1			
Accepts good ideas					2	
Accepts school changes			1			
Accepts social changes					2	
Shifting	2% to 5%				•	
Shifts for school tasks		2				
Shifts in social interactions					2	
OPTIMIZATION	-	·				
Monitoring	<= 1%					
Monitors school task performance			1			
Monitors social interactions						1
Monitors school situations		3				
Monitors personal appearance						1
Modulating	2% to 5%					
Activity level fits school tasks		2				
Activity level fits social situation					2	
Emotional response fits school task			1			
Emotional response fits social interaction					2	
Modulates sensory stimulation					2	
Correcting	<= 1%					
Fixes school task errors			1			
Makes social interaction corrections						0
Balancing	<= 1%					
Balances school task elements			1			
Balances social interactions					2	

EFFICIENCY		·				
Sensing Time	2% to 5%					
Keeps track of time with school tasks			1			
Keeps track of time in social interactions						1
Pacing	2% to 5%	l				
Changes pace with school tasks		2				
Changes pace in social interactions						1
Using Routines	<= 1%	<u> </u>				
Uses routines for school tasks			1			
Uses routines for social interactions						1
Gets ideas onto paper effectively			1			
Uses routines and strategies to do well on			0			
Uses routines and strategies to get tasks done			1			
Participates in discussions in school			1			
Brings materials home from school			0			
Hands in school work						
	20/ 1 50/		1			
Sequencing  Gets the steps in the right order for school	2% to 5%		_	<u> </u>		1
tasks		2				
Gets the order right when telling stories					2	
MEMORY						
Holding/Working	6% to 10%					
Keeps information in mind for school tasks		2				
Keeps information in mind in social situations					3	
Storing/Retrieving	2% to 5%					
Stores and recalls school information			1			
Stores and recalls social information					2	
Recalls information for tests			1			
Recalls information in social interactions					2	
Recalls information about self					3	
INQUIRY		I	<u> </u>			<u>.</u>
Guaging	2% to 5%					
Accurately estimates the difficulty/demands of school tasks			1			
Figures out how to interact in social situations					2	
Anticipating	2% to 5%	ı	l			•
Anticipates events in school			1			

Anticipates how statements affect others						2	
Anticipates consequences of own actions						2	
Estimating Time	<= 1%						
Estimates time for school tasks				1			
Estimates time in social situations							1
Analyzing	2% to 5%		•				
Examines and analyzes for school tasks			2				
Examines and analyzes social interactions						2	
Evaluating	<= 1%						-
Evaluates the quality of school work				0			
Evaluates the quality of social interactions							0
SOLUTION							
Generating	2% to 5%						
Comes up with new ways to solve school tasks				1			
Comes up with new ways to solve social tasks							1
Associating	2% to 5%						
Sees similarities in ideas				1			
Sees similarities in social situations						2	
Organizing	<= 1%						
Organizes school tasks				1			
Organizes social activities						2	
Planning	<= 1%						
Makes plans for school tasks				1			
Makes plans for social activities						2	
Makes plans for the use of own time						2	
Prioritizing	2% to 5%						
Prioritizes school tasks				1			
Prioritizes social activities						2	
Deciding	<= 1%						
Makes own decisions about school tasks				1			
Makes own decisions about social situations						2	
* Pating Descriptions	•	•			•		

<sup>\*</sup> Rating Descriptions

<sup>5 =</sup> Almost always does it on own without prompting

<sup>4 =</sup> Frequently does it on own without prompting

<sup>3 =</sup> Seldom does it on own without prompting

<sup>2 =</sup> Does it, but only after prompting

<sup>1 =</sup> Only does it with direct assistance

<sup>0 =</sup> Unable to do it even with assistance

ITEMS	Cumulative Percentile Range	EFS**	***	EFD**
SELF-REALIZATION	<del>-</del>			
Awareness of Self	2% to 5%			
Makes realistic comments about personal strengths and weaknesses.				0
Makes realistic comments about his or her own physical abilities.			1	
Makes realistic comments about what he or she feels or thinks about self				0
Awareness of Others	11% to 25%			
Makes realistic comments about other's mental and emotional strengths and weaknesses			1	
Makes realistic comments about the physical abilities of others.			1	
Makes realistic comments about what other people feel or think about others.			1	
Makes realistic comments about what others feel or think about him or her				0
Makes realistic comments about what other people feel or think about themselves			1	
Self-Analysis	2% to 5%			
Realistically analyzes and comments about his or her school performance			1	
Realistically analyzes and comments about ability to manage self				0
Realistically analyzes and comments about the ability of others to manage themselves				0
SELF-DETERMINATION		·		
Goal-Setting	6% to 10%			
States realistic goals for schooling based on personal interests				0
States realistic goals for work beyond school based on personal interests				0
Expresses strong desires to make his or her own decisions about what to do			1	
Long-Term Planning	6% to 10%			•
States realistic plans for accomplishing long-term schooling goals				0
States realistic plans for accomplishing long-term work goals				0
States realistic plans for accomplishing social and/or personal goals			1	

<sup>\*</sup> Rating Descriptions

- 3 = Does this very often
- 2 = Does this often
- 1 = Does this sometimes, but not much
- 0 = Never does this

<sup>\*\*</sup> Items rated as a strength for students below the age of 11 represent advanced development. Determination of deficits is based on age. Deficits are not identified for students below the age of 11.

<sup>\*\*\*</sup> Item ratings placed in the center column indicate that the item is neither a strength nor a deficit.