



NIH Toolbox Early Childhood Cognition Battery

Event Category:	Time-Based
Event:	48M
Administration:	N/A
Instrument Target:	Primary Caregiver
Instrument Respondent:	Primary Caregiver
Domain:	Neuro-Psychosocial
Document Category:	Scored Assessment
Mode (for this instrument*):	In-Person, CAI
OMB Approved Modes:	Web-Based, CAI; In-Person, CAI
Method:	Data Collector Administered
Estimated Administration Time:	41 minutes
Multiple Child/Sibling Consideration:	Per Child
Special Considerations:	N/A
Version:	1.0
MDES Release:	4.0
Publisher:	NIH Toolbox
NCS Contact:	Carol Andreassen Westat 301-251-1500

*This instrument is OMB-approved for multi-mode administration but this version of the instrument is designed for administration in this/these mode(s) only.

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Neuro-Psychosocial Cognition Battery

The NIH Toolbox is a research-based battery of cognitive, sensory, motor, and emotional function measures that was developed and nationally normed for ages 3-85 (www.nihtoolbox.org). The NIH Toolbox Cognition Battery is designed for ages seven and up and comprised of a series of assessments including Executive Function, Attention, Episodic Memory, Language, Processing Speed, and Working Memory. The administration of the full battery enables the calculation of two summary scores in addition to individual measure scores: Cognitive Function Composite Score and Crystallized Cognition Composite Score.

NIH Toolbox Dimensional Change Card Sort (DCCS) Test

The DCCS task measures working memory, inhibitory control and set shifting skills. The measure is appropriate for ages 3-85. For this task the participant is shown target pictures that vary along the dimensions of color and shape (e.g., a white rabbit and a gold boat). After learning to sort the pictures according to one dimension (e.g., color), the participant is asked to sort the pictures according to the other dimension (e.g., shape). The administration time is about 6 minutes.

NIH Toolbox Flanker Inhibitory Control and Attention Test

The Flanker Test measures inhibition, or the ability to control impulses. The measure is appropriate for ages 3-85. In this task the participant is presented with a series of pictures on a computer screen (e.g., a row of fish). The participant is instructed to respond based on whether the middle fish is pointing to the left or right by pressing the corresponding left or right key on the mouse. On congruent trials, the flanking fish point in the same direction as the middle fish, and on incongruent trials, the flankers point in the opposite direction. The administration time is about 5 minutes.

NIH Toolbox Picture Sequence Memory Test

The Picture Sequence Memory Test measures the ability to recall a series of pictured objects and activities that are presented in a certain order. The length of sequences varies from 6-18 images, and increases as the test proceeds. The measure is appropriate for ages 3-85. The administration time is about 7 minutes.

(Supplemental) NIH Toolbox Auditory Verbal Learning Test (Rey)

The Auditory Verbal Learning Test is a measure of immediate recall. The measure is appropriate for ages 8-85. The measure is a supplement to the Picture Sequence Memory Test or as a possible alternative for participants with visual limitations. The participant is presented with a list of 15 unrelated words through audio recording and asked to recall as many words as possible. The administration time is about 3 minutes.

NIH Toolbox Picture Vocabulary Test

The Picture Vocabulary Test measures receptive vocabulary, which is also known as listening vocabulary: the words that an individual recognizes well enough to understand when read or heard. The measure is appropriate for ages 3-85. In this task the participant is presented with an audio prompt and series of four pictures on a computer screen. For each item, the participant is instructed to select the picture that best matches the word by clicking with a mouse. The administration time is about 4 minutes.

NIH Toolbox Oral Reading Recognition Test

The Oral Reading Recognition test is a measure of verbal intelligence. The measure is appropriate for ages 7-85. The participant is asked to read and pronounce letters and words as accurately as possible. Separate but parallel reading tests are available in English and Spanish. The administration time is about 3 minutes.

NIH Toolbox Pattern Comparison Processing Speed Test

The Pattern Comparison Processing Speed test is a measure of mental efficiency, or the amount of time it takes to process a certain amount of information. The measure is appropriate for ages 7-85. The participant is presented with a series of pictures in a 90 second interval and asked to determine whether two pictures presented side-by-side are the same or not. The administration time is about 3 minutes.

(Supplemental) NIH Toolbox Oral Symbol Digit Test

The Oral Symbol Digit Test is a measure of processing speed and is a supplement to the Pattern Comparison Processing Speed test or possible alternative for participants with motoric limitations. The measure is appropriate for ages 8-85. The participant is shown a set of nine symbols on a computer screen, each associated with a number 1-9, and then presented with a series of symbols without numbers. Then the participant is asked to say out loud each number that goes with that symbol, without skipping any symbols. The administration time is about 3 minutes.

NIH Toolbox List Sorting Working Memory Test

The List Sorting Working Memory Test measures short-term recall. The measure is appropriate for ages 7-85. The participant is presented with pictures of different foods and animals accompanied by an audio recording and written text. For an item the participant is asked to name the pictures out loud in size order from smallest to largest on either one or two dimensions. The administration time is about 7 minutes.