

# ENGAGEMENT

## MEASURE DIFFERENCES

A brief guide to differences between the PROMIS® Early Childhood Parent-Report Engagement – Curiosity and Engagement – Persistence instruments:

EARLY CHILDHOOD PARENT-REPORT
PROMIS Early Childhood Parent-Report Scale v1.0 – Engagement – Curiosity 6a
PROMIS Early Childhood Parent-Report Scale v1.0 – Engagement – Persistence 6a

### ABOUT ENGAGEMENT

The PROMIS Early Childhood Parent-Report Engagement scales assess young children’s curiosity (emotional, behavioral, and cognitive curiosity and interest, initiative taking) and persistence (sustained engagement and effort in problem solving, completing challenging activities, self-confidence) via parent-report. These scales are part of a suite of measures that evaluate the multifaceted construct of early childhood well-being. These scales are universal rather than disease-specific. Both scales assess engagement over the past seven days.

Engagement instruments are available for parents reporting on their young child (ages 1-5 years).

### INTRODUCTION TO ASSESSMENT OPTIONS

There is one administration option for assessing engagement: fixed length scales. No computer adaptive test (CAT) is available. When administering a scale, instruct respondents to answer all of the items (i.e., questions or statements) presented.

### VERSION DIFFERENCES

Some PROMIS domains have multiple versions of instruments (i.e., v1.0, v1.1, v2.0). Generally, **it is recommended that you use the most recent version available which can be identified as the instrument with the highest version number**. In most cases, an instrument that has a decimal increase (v1.0 to v1.1) retains the same item-level parameters as well as instrument reliability and validity. In cases where a version number increases by a whole number (e.g., v1.0 to v2.0), the changes to the instrument are more substantial.

There is currently only one version for each of the Engagement measures:

- PROMIS Early Childhood Parent-Report Scale v1.0: Engagement – Curiosity
- PROMIS Early Childhood Parent-Report Scale v1.0: Engagement – Persistence

### SELECTING AN ENGAGEMENT INSTRUMENT

In selecting an Engagement instrument, it is important to consider the specific content you wish to assess. Both scales can be used in the same study to evaluate two different components of young children’s engagement – curiosity and persistence. If you are more interested in evaluating young children’s cognitive, behavioral, and emotional interest in the world around them, select Engagement – Curiosity 6a; alternatively, if you are interested in assessing young children’s sustained effort during problem solving and challenging activities, select Engagement – Persistence 6a.



## Early Childhood Parent-Report Versus Parent Proxy Report Measures

The PROMIS Early Childhood Parent Report measures are for parents to report on their children ages 1 to 5. The PROMIS Parent Proxy measures are for parents to report on their children ages 5-17. There are currently no Parent Proxy Engagement measures.

## SCORES

For most PROMIS instruments, a score of 50 is the average for the United States general population with a standard deviation of 10 because calibration testing was performed on a large sample of the general population. You can read more about the calibration and centering samples on HealthMeasures.net (<http://www.healthmeasures.net/score-and-interpret/interpret-scores/promis>). The T-score is provided with an error term (Standard Error or SE). The Standard Error is a statistical measure of variance and represents the “margin of error” for the T-score.

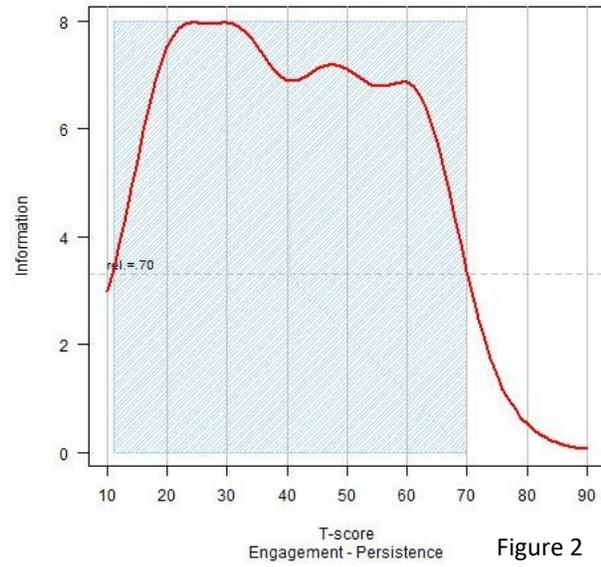
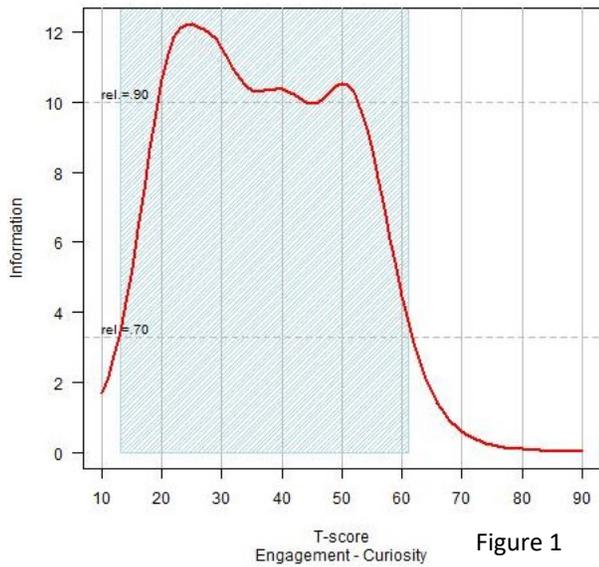
**Important:** A higher PROMIS T-score represents more of the concept being measured. Thus, a child who has T-scores of 60 for the Engagement – Curiosity or Engagement – Persistence scale is one standard deviation better (at curiosity or persistence) than the general population.

## STATISTICAL CHARACTERISTICS

There are four key features of the score for Engagement – Curiosity 6a and Engagement – Persistence 6a:

- **Reliability:** The degree to which a measure is free of error. It can be estimated by the internal consistency of the responses to the measure, or by correlating total scores on the measure from two time points when there has been no true change in what is being measured (for z-scores, reliability =  $1 - SE^2$ ).
- **Precision:** The consistency of the estimated score (reciprocal of error variance).
- **Information:** The precision of an item or multiple items at different levels of the underlying continuum (for z-scores, information =  $1/SE^2$ ).
- **Standard Error (SE):** The possible range of the actual final score based upon the scaled T-score. For example, for Engagement – Persistence 6a, with a T-score of 52.49 and a SE of 3.61, the 95% confidence interval around the actual final score ranges from 45.4 to 59.6 ( $T\text{-score} \pm (1.96 * SE) = 52.49 \pm 7.08 = 45.4 \text{ to } 59.6$ ).

The final score is represented by the T-score, a standardized score with a mean of 50 and a standard deviation (SD) of 10.



In Figure 1 (Engagement – Curiosity 6a) and Figure 2 (Engagement – Persistence 6a), the dotted horizontal lines represents a degree of internal consistency reliability (i.e., .70 or .90) typically regarded as sufficient for an accurate individual score. The shaded blue region marks the range of the scale where measurement precision is comparable to the reliability of .70 for the form. These figures also tell us where on the scale the forms are most informative based upon the T-score.

More information is available at [HealthMeasures.net](http://HealthMeasures.net).

## PREVIEW OF SAMPLE ITEM

Figure 3 is an excerpt from the paper version of the PROMIS Early Childhood Parent-Report Scale v1.0 – Engagement – Curiosity 6a form. Figure 4 is an excerpt from the paper version of the PROMIS Early Childhood Parent-Report Scale v1.0 – Engagement – Persistence 6a form.

**In the past 7 days**

	Never	Rarely	Sometimes	Often	Always
engage_ec1 My child showed interest and curiosity in learning new things.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
engage_ec4 My child was eager to try new things.....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Figure 3

**In the past 7 days**

	Never	Rarely	Sometimes	Often	Always
engage_ec10 My child kept working at something until he/she was finished .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
engage_ec11 My child didn't give up when something was hard .....	<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5

Figure 4

## FREQUENTLY ASKED QUESTIONS (FAQs)

Q: I am interested in learning more. Where can I do that?

Review the HealthMeasures website at [www.healthmeasures.net](http://www.healthmeasures.net).

Q: Are these instruments available in other languages?

Yes! Look at the HealthMeasures website (<http://www.healthmeasures.net/explore-measurement-systems/promis/intro-to-promis/available-translations/117-available-translations>) for current information on PROMIS translations.

Q: Can I make my own short form?

Yes, custom short forms can be made by selecting any items from an item bank. This can be scored using the Scoring Service ([https://www.assessmentcenter.net/ac\\_scoring-service](https://www.assessmentcenter.net/ac_scoring-service)).