

# What's the Meaning of Comprehension for Preschoolers? Pioneering Progress Monitoring Tools in a Disputed Domain

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## Introduction

- The *Individual Growth and Development Indicators* (IGDIs) are general outcome measures used to monitor progress in preschool reading achievement.
- The current, widely used set of IGDIs includes measures of phonemic awareness and oral language but ignores other components of reading achievement (i.e. comprehension).
- If the IGDIs are used within a Response to Intervention (RtI) model to enhance preschool reading achievement, it is important to measure comprehension in order to modify instruction according to current level of performance.
- Yet, few can agree on a definition of comprehension at the preschool level, and few assessment tools are available.
- This poster describes the process used to develop and research a battery of comprehension IGDIs.

## Method

- A comprehensive literature review was completed.
- An operational definition of comprehension was developed and used to generate ideas for observable and measurable child behaviors.
- Four IGDI formats were designed, piloted, revised, and subjected to field testing with a small sample of preschoolers (n = 41).
- Children were given the IGDIs and a criterion measure, the *Clinical Evaluation of Language Fundamentals - Preschool, Second Edition* (CELF-P2).

## Operational Definition

Three essential components of comprehension:

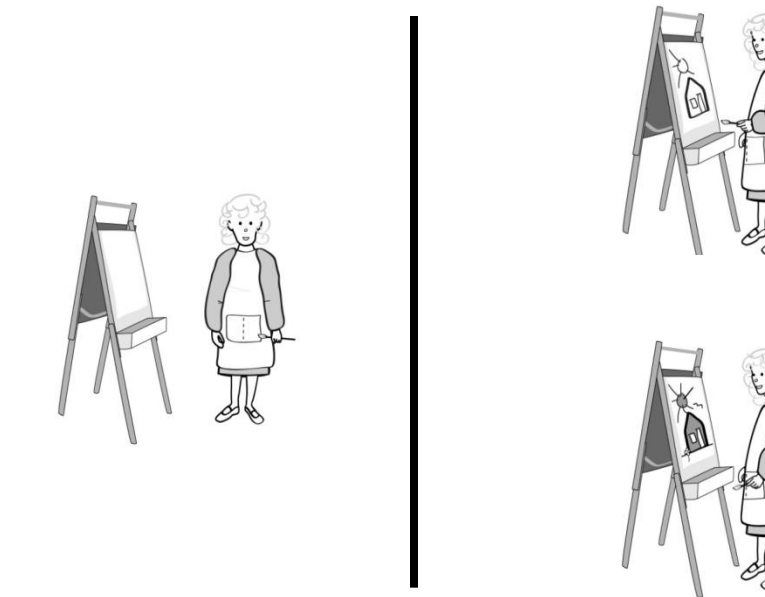
- Text comprehension - the process of gaining meaning from written language, pictures, and symbols.
- Listening comprehension - the understanding of spoken language.
- Inferencing - the process of filling in information that was neither seen nor heard explicitly.

## Picture Comprehension



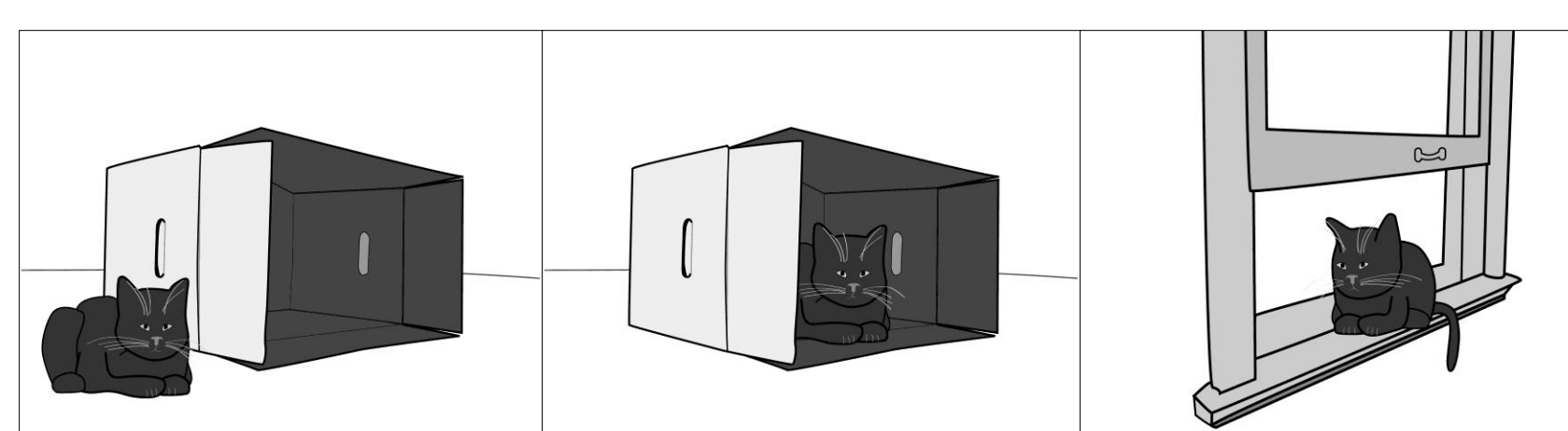
Where is she going?

## Sequencing



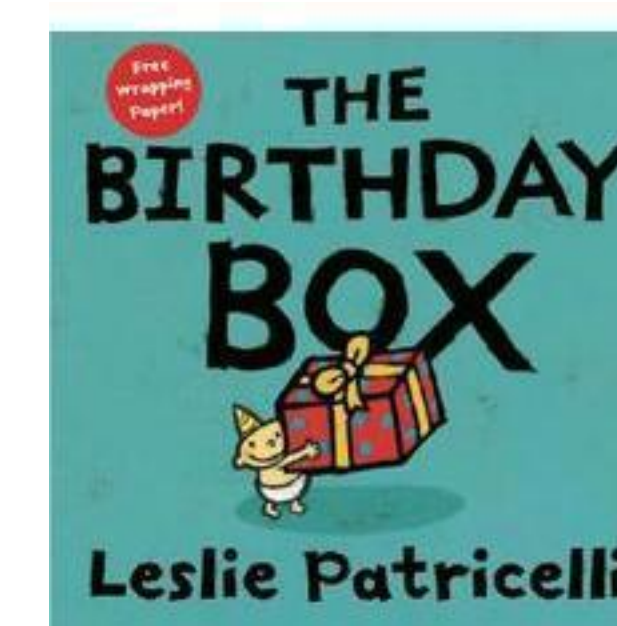
Which one comes next?

## Sentence Comprehension



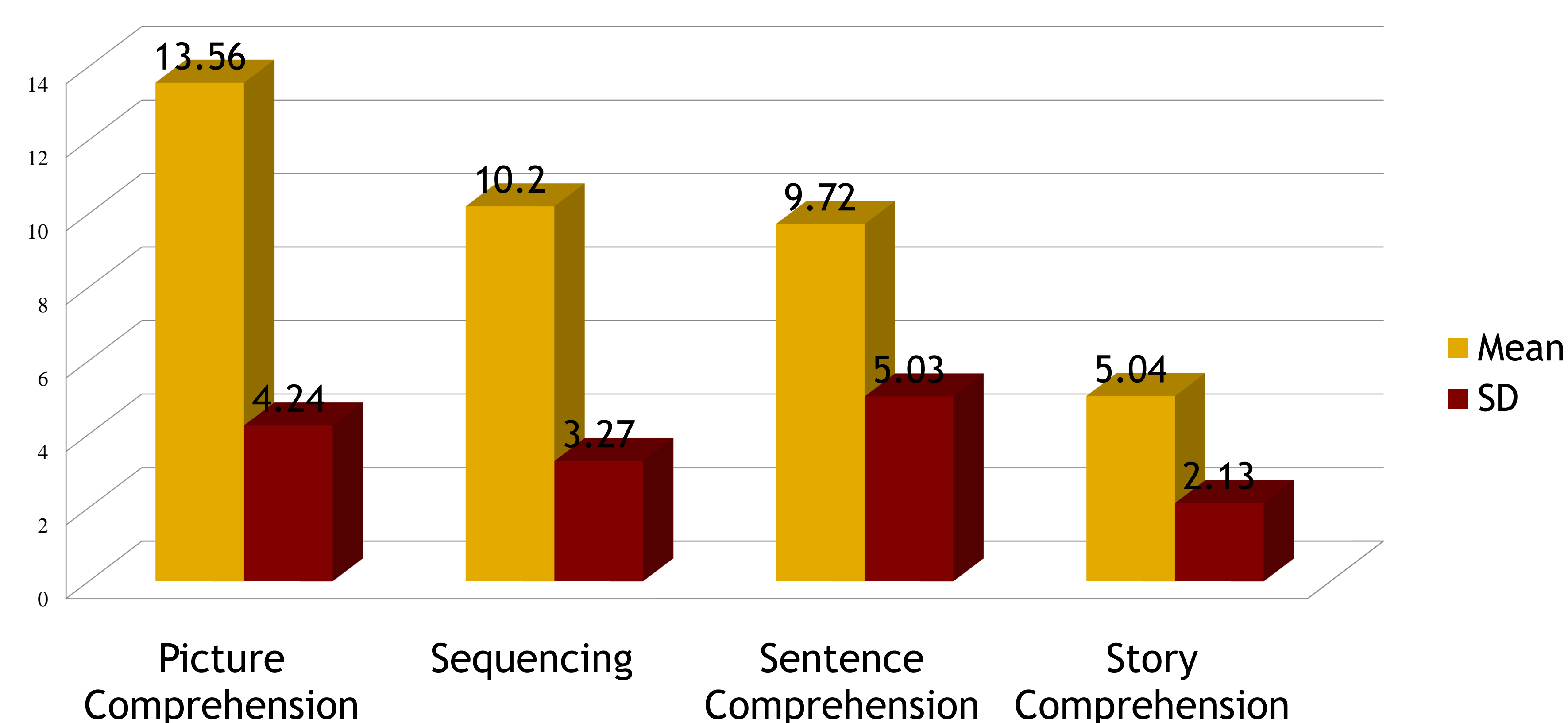
The cat is out of the box.

## Story Comprehension



Why were they tired?

Means and Standard Deviations of Total Scores on IGDIs



## Results

- A slight ceiling effect was observed for Story Comprehension.
- Picture Comprehension, Sequencing and Sentence Comprehension demonstrated normal distributions and minimal ceiling effects. Additionally sequencing was without floor effects.
- Story Comprehension yielded limited variability in total scores, as a result a limited sample was used to assess its utility (n=26).

## Results Continued

- All four IGDIs were moderately correlated with age ( $r_s = .47-.61$ ).
- Sequencing, Picture Comprehension and Sentence Comprehension all demonstrate promise in assessing comprehension with preschool aged-children. These three measures were the most robust and were selected to undergo further development and research.

## Correlations with Criterion Measure

	CELF-P2 Subtests		
	Sentence Structure	Word Structure	Expressive Vocabulary
Picture Comprehension	.43**	.54**	.66**
Sequencing	.44**	.17	.41*
Sentence Comprehension	.64**	.55**	.58**
Story Comprehension	.46*	.60*	.66**

\*Correlation is significant at the .05 level.  
\*\*Correlation is significant at the .01 level.

## Discussion Questions

- What does comprehension mean for children who are not yet reading?
- How well do assessments of comprehension fit within a general outcome measurement model?
  - Is fluency an adequate indicator of comprehension?
  - How can comprehension be measured in 2 minutes or less?
- To what extent is comprehension distinguishable from oral language at the preschool level?
- Are preschoolers able to use inferencing, and how does this ability relate to cognitive development?

