Give us a HAND: Holistic narrative quality rating of stories told by typically developing children
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Introduction
Children with who have language disorders demonstrate difficulty producing complete and coherent oral narratives. Even when children include all story grammar elements, these elements may not be well organized or elaborated sufficiently. Organization and elements of artful storytelling such as the use of elaborated noun phrases and vibrant vocabulary may be lacking in stories told by children with language impairments (Ukrainetz & Gillam, 2009). While these aspects of stories may be accurately captured in narrative assessments such as the Test of Narrative Language, 2nd Edition (Gillam & Pearson, 2017) the aesthetic quality of stories may not be. Holistic ratings of narrative quality may provide a way to capture qualitative elements of stories that other assessment fail to detect. It is important because sometimes, stories contain all of the right elements and yet they do not sound like good stories.

Purpose
The purpose of this study was to determine whether a measure of holistic quality of narrative abilities aligned with scores obtained on a standardized measure of narrative proficiency in typically developing children.

Methodology
- Stories from 256 typically developing children
- Ages 4-7
- Stories from TNL-2
- Stories transcribed using Systematic Analysis of Language Transcripts (SALT)
- Coded for quality using Holistic Analysis of Narrative Discourse (HAND)

Procedures
- Children generated stories from a picture prompt (single scenes).
- Stories were transcribed by individuals blind to the purpose of the study.
- Stories rated for holistic quality on a scale from zero to five, weakest to strongest, by trained raters.
- Holistic scoring inter-rater reliability was 91%.
- Holistic scores were derived from the single scene story.
- Holistic scores were compared to TNL-2.

Results
- The Test of Narrative Language, 2nd edition (TNL-2) total raw score and oral narration were compared with the Holistic Analysis of Narrative Discourse (HAND) ratings.
- A one way multivariate analysis of variance (MANOVA) was conducted to determine the effect of age on the measure of narrative quality.
- Analyses of variances (ANOVA) on the dependent variables were conducted as follow-up tests. Using the Tukey method, each ANOVA was tested at the .05 level.
- Significant differences were found on HAND, TNL2, and Narrative Oration.
- Seven year olds earned significantly higher holistic scores than four and five year olds.
- Six year olds earned significantly higher holistic scores that four and five year olds.
- Five year olds earned significantly higher holistic scores than four year olds.
- No significant difference between six and seven year olds (P=.067)

- Correlation coefficients were computed among the holistic scores and the TNLA.
  - All correlations found for be statistically significant, greater than or equal to 0.61
  - A .61 correlation score for both the production raw score and total raw score shows that the HAND in an independent measure.

Discussion


- Females scored significantly higher than males on the Narrative Oration in the TNL.
- Differences in scores between males and females were not significant on the HAND, but they did approach significance.
- Children ages six years or older were able to score a 5 on the HAND.
- This implies that children’s narrative abilities are approaching full development until the age of 6 (according to the HAND scale.)
- Children ages four and five still produced scores of 0 on the HAND, by the age of six there are no longer any 0 stories.
- By the age of six, children have enough narrative skills to describe the stimulus.

Clinical Implications
- Combined with the TNL-2, the HAND gives the clinician a more holistic perspective on children’s narratives
- Findings show that the is HAND correlated with the TNL but also represents an independent measure of narrative quality
- The HAND is a useful adjunct to the standardized measure
- Narratives play a large role in how children communicate with each other.