Macrostructure Analysis of Written Narratives in Children With Language Learning Disabilities

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Introduction

Writing is a complex task in which many different factors must be combined to create a structured quality piece of writing. For children in school, writing is an important skill for academic success in two key ways. First, the Common Core State Standards (CCSS; 2012) initiative places an increased emphasis on writing, and second, children are assessed annually for accountability purposes.

Historically, annual assessments of writing for accountability purposes required children to provide an expository or persuasive writing sample; however, the assessment designed to assess children aligned with the CCSS initiative asks children to provide a writing sample in the narrative genre.

Children with Language Learning Disabilities (LLD) are at risk for difficulties with writing due to the nature of the language deficit. Research has demonstrated that children with LLD perform poorer than peers with typical development (TD) on a variety of measures of writing including productivity, complexity, accuracy, mechanics, and quality (e.g., Mackie & Dockrell, 2004; Koutsoftas & Gray, 2012; McFadden & Gillam, 1996; Scott & Windsor, 2000).

An important consideration for language intervention for children with LLD are written language outcomes, especially in the face of an increased emphasis on writing ability for school age children. Furthermore, given the emphasis on *narrative* writing for instructional and assessment purposes; an investigation of how children with LLD perform on narrative writing tasks is warranted.

Research has demonstrated weaknesses in narrative language abilities in the spoken modality for children with LLD when compared to peers with TD (Liles, 1993; Merritt & Liles, 1987; 1989), thus setting an expectation that these differences will likely be observed in the written modality.

The purpose of **the current study** is to compare the macrostructure of written discourse between children with and without LLD using a narrative analysis procedure previously used to analyze spoken language samples and to see how measures obtained from this analysis related to an external measure of writing quality. The specific **research questions** are:

1. Do 6th grade children with LLD produce fewer story grammar elements and fewer complete episodes in written narratives compared to peers with TD?

2. Is there a relationship between story grammar elements and complete episodes with quality of writing?

Sample

N = 40	TD (n = 20)	LLD (n = 20)
Mean Age in Years	11.70 (.47)	11.75 (.64)
Female : Male	7 : 13	7 : 13
Mean years of mothers' education	14.45 (1.54)	14.00 (2.75)
Total Test Standard Score* (GRADE; Williams, 2001)	114.35 (10.24)	95.85 (12.56)
Writing Quality Score*	2.9 (1.37)	2.05 (.89)

* p < .05

Story Grammar Element descriptors table (Adapted from Hughes, McGillivray, & Schmidek (1997) Guide to Narrative Language).

Procedures

- The written narratives were analyzed and coded using the story grammar macrostructure guidelines outlined in the Guide to Narrative Language, Procedures for Assessment (Hughes et al., 1997).
  - Writing samples were coded first for story grammar elements and then for story structure.
  - For elements, samples were coded for seven different structures including: setting, initiating event, attempt, consequence, internal response, internal plan, and endings.
  - For structure, story elements were connected into episodes whereby a complete episode included an initiating event, attempt, and consequence along with any other associated elements. Incomplete episodes were those that did not include the three required elements.
- External quality scores were completed in a separate scoring analysis whereby pairs of raters had to come to agreement on a score using a six point scale.

Results

Correlations table

**. Correlation is significant at the 0.01 level (2-tailed).
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Discussion

Children with LLD received a significantly lower score of writing quality using a rubric type measure commonly applied to standardized writing assessments. Dually, the LLD group performed poorer on two narrative productivity measures both of which were significantly related to the writing quality score. The significant relationship between macrostructure analysis and quality rating scores provides validity for using a macrostructure analysis approach for the evaluation of writing in school age children. This provides clinicians a familiar framework for improving narrative writing.

- The results of this study indicate that children with LLD perform poorer than typically developing age matched peers in overall writing score quality.
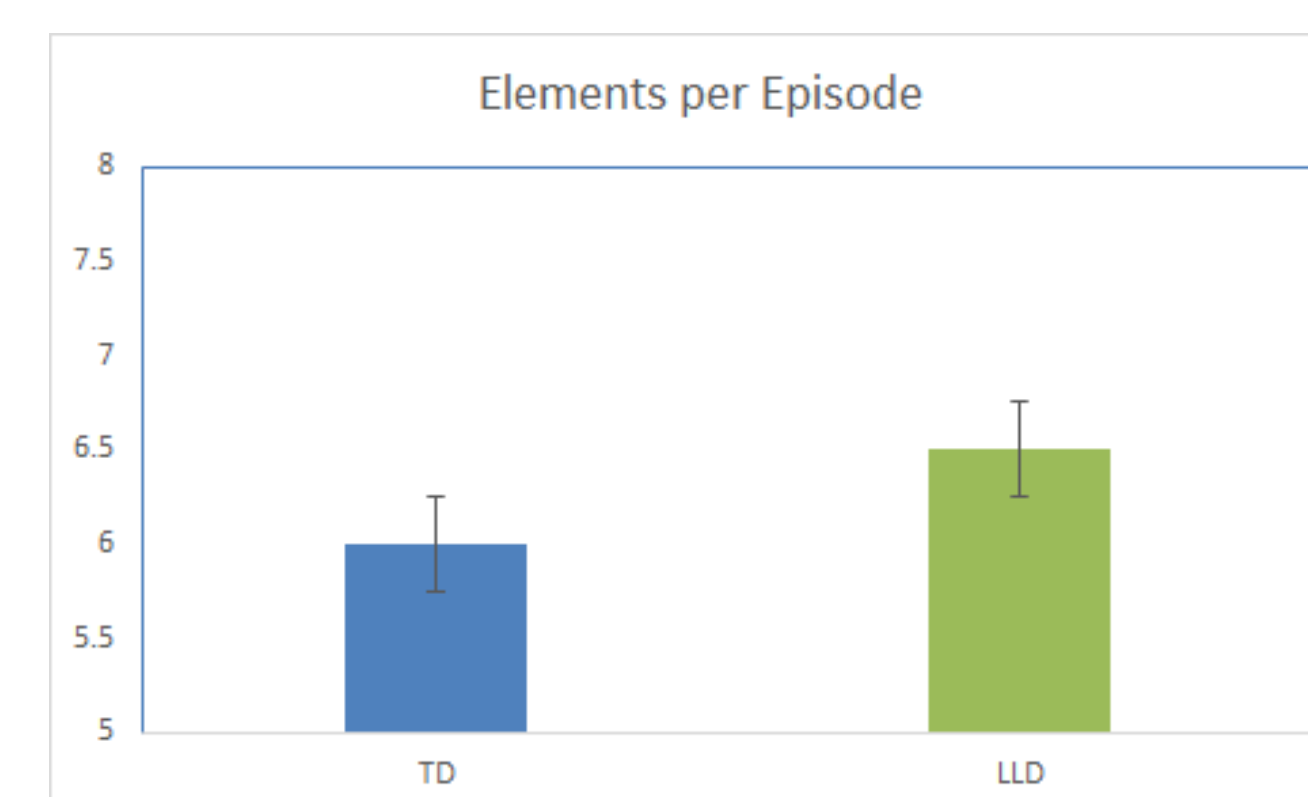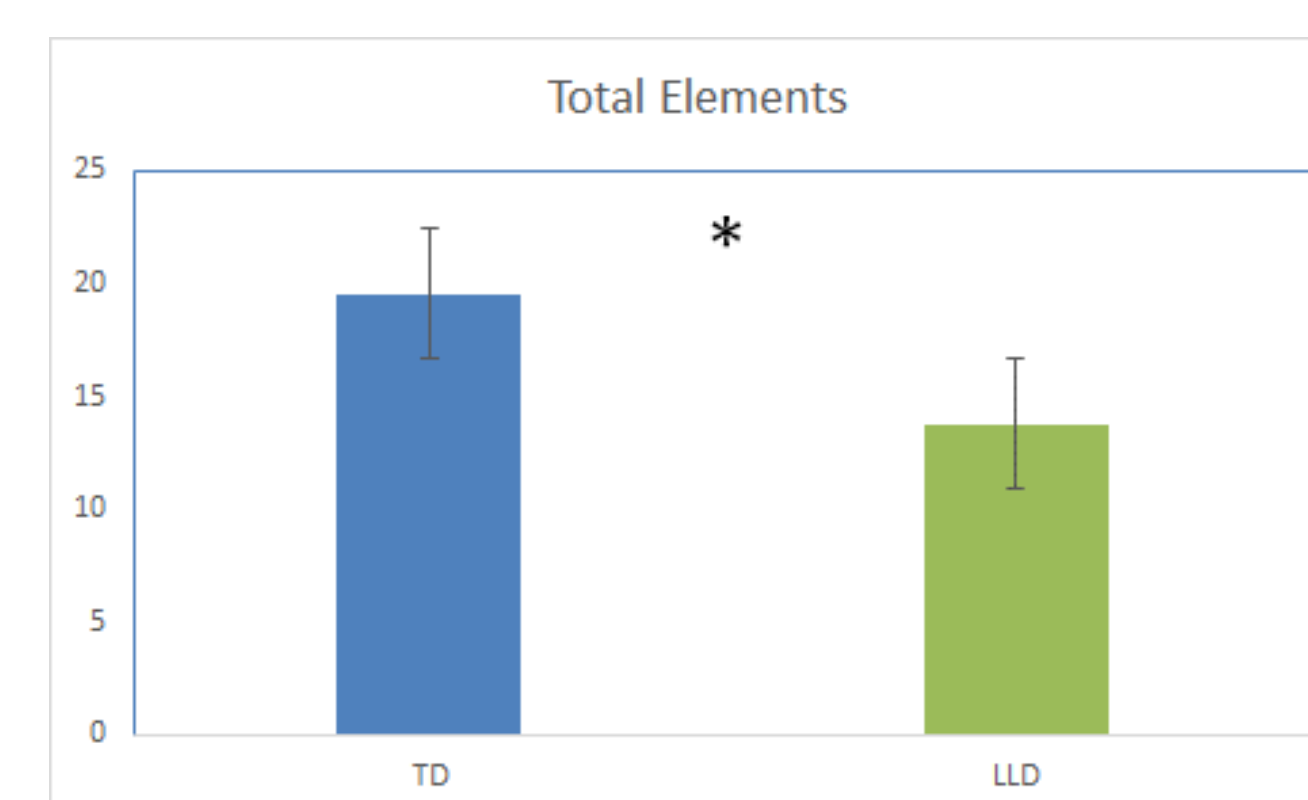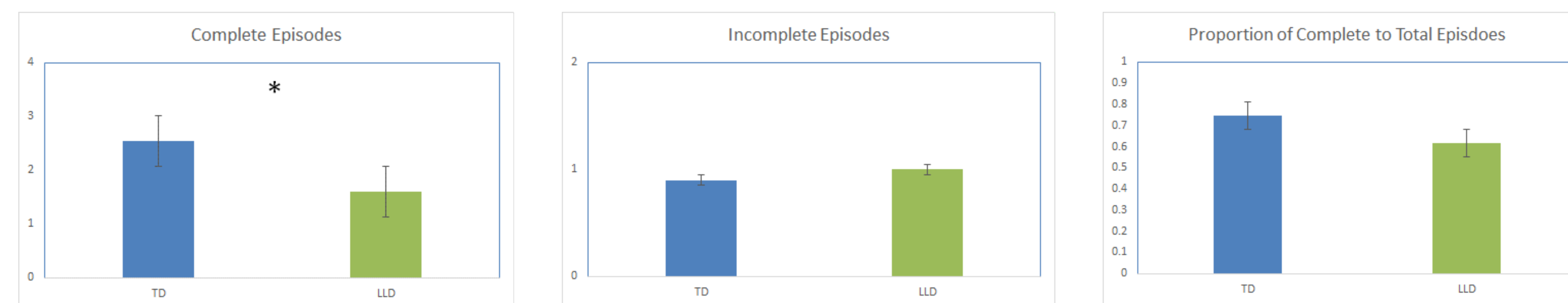
- Typically developing children performed significantly better than children with LLD when analyzing the number of complete episodes and the number of story grammar elements.

- A positive correlation can be seen when comparing the number of story grammar elements to the number of complete episodes, suggesting that there is a relationship between the two measures.

- Our approach in analyzing the narratives was similar to the scores they would receive on a rubric for a writing quality score. Analysis and interpretation of the results suggest that narratives which contain fewer story grammar elements result in a poorer overall writing score quality.

- Based on our findings, it can be assumed that children with LLD can benefit from speech-language therapy to improve their written expressive language, further preparing them for success in learning through the CCSS and performing on the PARCC standardized test which requires a narrative writing sample.

Acknowledgements