

# Comparing Language Skills Measured by the CASL & Narrative Assessment

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## Past Research

### Crais & Lorch (1994) Summarized Discriminating Narrative Measures

Across numerous studies, it was found that compared to their normal peers, narratives of children with language disorders contain:

- fewer story grammar components (Klecan-Aker & Kelly, 1990; Merritt & Liles, 1987)
  - fewer different words (Strong & Shaver, 1991; Newcomer, Barenbaum, & Nodine, 1988)
  - fewer attempts, plans, and internal responses (Roth & Speckman, 1986; Griffith, Ripich, & Dastoli, 1986)
  - too much or too little information (Candler & Hildreth, 1990)
  - less conventionalized story introductions & conclusions (Sleight & Prinz, 1985)
  - less complete cohesive ties (Liles, 1985)
  - more lexical ties, demonstrative references, and error ties (Liles, 1985)
  - less awareness of listener knowledge (Liles, 1987)
  - and more unsuccessful repairs to accurate story meaning (Purcell & Liles, 1992)
- Conflicting findings were also noted.
- Some studies have found that children with language disorders produced shorter stories as measured by number of propositions or utterances (Liles, 1985; Roth & Speckman, 1986); while others have reported similar story length between groups (Feagans & Short, 1984)
  - Some studies have shown similar numbers of total words (German & Simon, 1991) in stories, while other demonstrated shorter stories by language impaired children (Klee, 1992; Strong & Shaver, 1991)

### Gillam (2003) Summarized Least to Most Discriminating Narrative Measures Including:

- Type story grammar propositions
- Number of story grammar propositions
- Total number of words or utterances
- Grammatical complexity
- Number of different words
- Holistic scoring
- Grammatical acceptability

In comparison to their peers, children with language disorders produce narratives which are less complex, with deficits in sentence grammar, story grammar, and cohesion (Gillam, 1989; Gillam & Johnson, 1992; Graybeal, 1981; Liles, 1985; 1987; Merritt & Liles; 1987).

### Narratives as an Assessment or Screening Tool

- Culatta, Page, & Ellis (1983) evaluated the effectiveness of using narratives as a screening tool to identify language disorders.
  - Found only low to moderate correlations between narrative measures and standardized language screening tool results
  - Thought narrative assessment may be a sensitive tool, found some children who performed well on standardized tool but poorly on narrative tasks.
- Strong (1998) has published the **Strong Narrative Assessment Procedure**, one of the first story telling assessments to contain some normative information.
  - The tool lacks information about criterion validity as to how well it's scores correlate with other traditional standardized language assessments.
  - It is difficult to discern how sensitive the story telling tasks are for identifying children with language impairment

## Purpose

Although SLPs have many assessment options available, more information is needed about the relationship among measures so that valid time efficient evaluations can be conducted. The purpose of the present study was to compare language results from narrative assessment with a new comprehensive standardized test, the Comprehensive Assessment of Spoken Language (CASL).

## Subjects

All subjects had normal cognitive ability.

### Normal Developing

- N=11
- 1 first grader
- 7 second graders
- 3 third graders
- Criteria for normal developing subjects was average or above average performance on classroom work per teacher judgment
- No history of speech or language delays
- No current or past S-L treatment

### Language Impaired

- N=11
- 1 first grader
- 7 second graders
- 3 third graders
- Criteria for children with language impairments required them to score 1.5 or greater standard deviations below the mean on two standardized measures at the time they were assessed and added to SLPs caseload, as well as teacher referral and SLPs judgment
- None of the children were initially diagnosed using the CASL. Standardized tests for diagnosis included TOLD, LPT, CELF, etc.

## Assessment

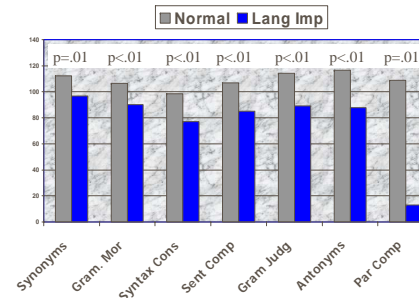
- Subtests from the Comprehensive Assessment of Spoken Language (CASL) (Carrow-Woolfolk, 1999) including Antonyms, Synonyms, Sentence Completion, Syntax Construction, Paragraph Comprehension, Grammatical Morphemes, and Grammaticality Judgment were administered to children individually.
- Story retelling tasks and comprehension questions from the Strong Narrative Assessment Procedure (SNAP) (Strong, 1998) were performed.
- Two of the four wordless Mercer-Mayer storybooks from the SNAP were used. After listening to the story, subjects moved to a different room where they had to retell the story to a naive listener from memory without the use of pictures.
- Both were administered, scored, and transcribed by two Communication Disorders & Sciences students.
- Subjects were tested individually in a small, quiet room.
- Pearson correlations were calculated between the CASL and narrative task measures. T-tests to evaluate significant differences between groups were also performed

## Measures

- 7 CASL subtests**
- 4 Narrative measures used from the SNAP included:**
  - Comprehension Questions
  - Story retelling rating of story structure, episodes, and coherence (Fox & Wright, 1997; Koskinen, Gambrell, & Kapinus, 1993)
  - Words per c-unit
  - Total number of words
- 4 Other narrative measures included:**
  - Total number of different words
  - Average number of cohesive conjunctions used
  - Unique vocabulary not in the 500 most common words in a 6-year-olds' expressive vocabulary (Wepman & Hass, 1969)
  - Grammatical accuracy

## Results

### Means from subtests of the CASL with normal developing children and children with language impairments



### Correlations of Form Measures from CASL (top row) with Narrative Measures (1st column)

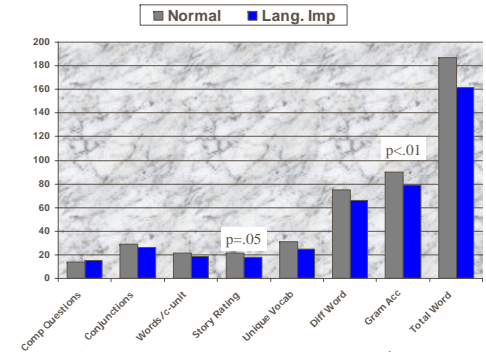
	Syntax Const.	Gram. Morphemes	Gram. Judgment
Words per c-unit	.289	.144	.379
Conjunctions Used	.118	.253	.214
Gram. Accuracy	.649*	.623*	.640*

\* P < .05

## Results Summary

- Significant differences were evidenced between language impaired and normally developing peers on all subtests from the CASL. Children with normal language development scored higher than children with language impairments on all of the CASL subtest measures.
- Means for children with normal language were higher than the language impaired group for 8 out of 9 narrative measures, however the difference between the groups was very small. Only two significant differences were found between the language impaired and normally developing group
  - The global rating of story structure, episodes and coherence from the SNAP differentiated the groups
  - The other significantly different measure from the narratives was the percent of grammatically accurate utterances.

### Means from narrative tasks with normal developing children and children with language impairments



### Correlations of Content Measures from CASL (top row) with Narrative Measures (1st column)

	Synonyms	Antonyms	Sent. Completion	Paragraph Comp.
Total Words	.129	.368	.144	.123
Different Words	.136	.376	.171	.160
Unique Vocabulary	.160	.384	.300	.142
Story Rating	.219	.446*	.182	.257
Comp Questions	.420	.277	.254	.339

\* P < .05

## Discussion

### Relationship to Past Research

- Results agreed with Culatta et al. (1983), indicating that narrative retelling tasks and standardized assessment display low correlations in evaluating language skills.
- Agreed with past research reporting similar performance on some narrative measures between language impaired and normally developing children (Feagans & Short, 1984; German & Simon, 1991)
- Results agreed with Gillam (2003) that global ratings of story retelling and measures of grammatical acceptability were the most discriminating narrative measures between

### Clinical Implications

- Informal narrative assessment or some measures from the Strong Narrative Assessment may not be very sensitive for identifying children with language impairments.
- Gillam's new Test of Narrative Language (in press) may correct many of the possible difficulties with identifying children with language impairments using measures of narrative skills. Has .92 sensitivity at identifying language impaired children