

# Narrative Fluency in African American Children With Language Impairment

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## Introduction

- Studying narratives allows for the evaluation of linguistic complexity.
- Different types of narratives
  - Retelling
  - Story Generation

## Narrative Development

- 6 features
  - Topic Maintenance
  - Event Sequencing
  - Informativeness
  - Referencing
  - Conjunctive Cohesion
  - Fluency**

## Narrative Fluency

- Fluency**
  - Flow of language production.
  - Measured by lack of repetitions, false starts, interruptions, and fillers.
  - Mazes (Loban, 1976), or disfluencies are indications of the formulation load of a sentence (Miller, 1987).
  - Mazes have been used to document word-finding and/or formulation difficulties in children with language impairment
- Using language sample data, Miller (1996) found that 38% of children with SLI (ages 2-14 years) were above one standard deviation compared to their peers with respect to:
  - Number of utterances containing mazes
  - Total number of mazes
  - Percent of mazed words (number of words in mazes/number of words)
- There are no current data concerning the narrative fluency skill of children who are African American with language impairment.



## Narrative Fluency and Mazes

- Within narratives, fluency is calculated by the number of mazes present.
- SALT: ( )
- Maze examples: (um), (er), the (the the)
- The more mazes in your speech, the less fluent you are.

### Examples

- Fluent Narrative
 

"He got out of bed. He was watching a clock and he was spilling the milk. He broke one of his shoelaces. He was late for the bus. He walked to school and the teacher said you are late for school."
- Narrative with Mazes
 

"(um) Ryan (um) got (um) a cheeseburger (and) and fries and a drink and (some) some other stuff. And the girl (gets) got (got some um uh) some chocolate (k) cone ice cream."

## Purpose of the Study

We studied the frequency, density, and length of mazes during 3 narrative tasks: retelling, story generation (sequence pictures) and story generation (static picture) in African American children with language impairment.

## Research Question

- Do African American children with language impairment produce more mazes in retell (no picture), story generation (with sequence pictures) or story generation (with one picture)?

## Predictions

- Retelling requires the child to utilize memory resources, whereas story generation does not, therefore,
- More mazes will be present in the retelling compared to story generation tasks.

## Participants

- 40 African American children (6 to 8;11 years old) with language impairment

	Mean (SD)
Age	7;8 (8)
Gender	
• Male	26
• Female	14
Socioeconomic status	
• Low	9
• Mid	22
• High	9
Nonverbal IQ	94 (7)
Spoken Language Quotient (Test Of Language Development-3)	74 (8)
Language Composite (Comprehensive Assessment of Spoken Language)	77 (9)
Narrative Language Index (Test of Narrative Language)	75 (10)

## Method

- All narratives were tape recorded, transcribed, and analyzed by SALT.
- Stories were considered invalid if the child did not respond to examiner prompts or stated "I don't know".
- Variables included: maze frequency, maze length, and maze density.

## Mazes

- Maze frequency: how often a maze occurs
- Maze density: mazed words as a percentage of total words
- Maze length: average number of words per maze

## Test of Narrative Language

- Given the Test of Narrative Language (TNL) (Gillam & Pearson, 2004)
- 3 types of narratives

### McDonalds



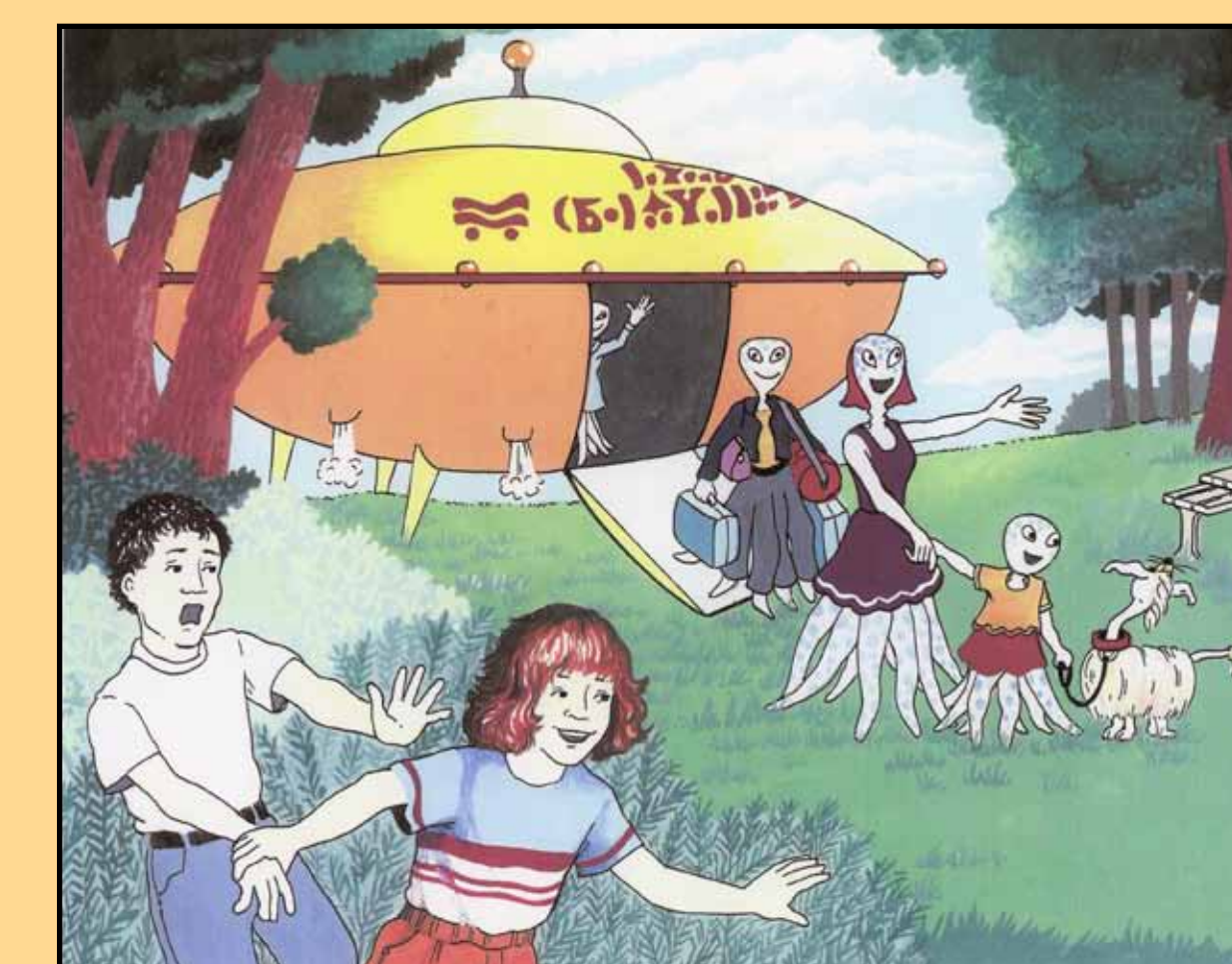
- Retell with no pictures

### Late for School



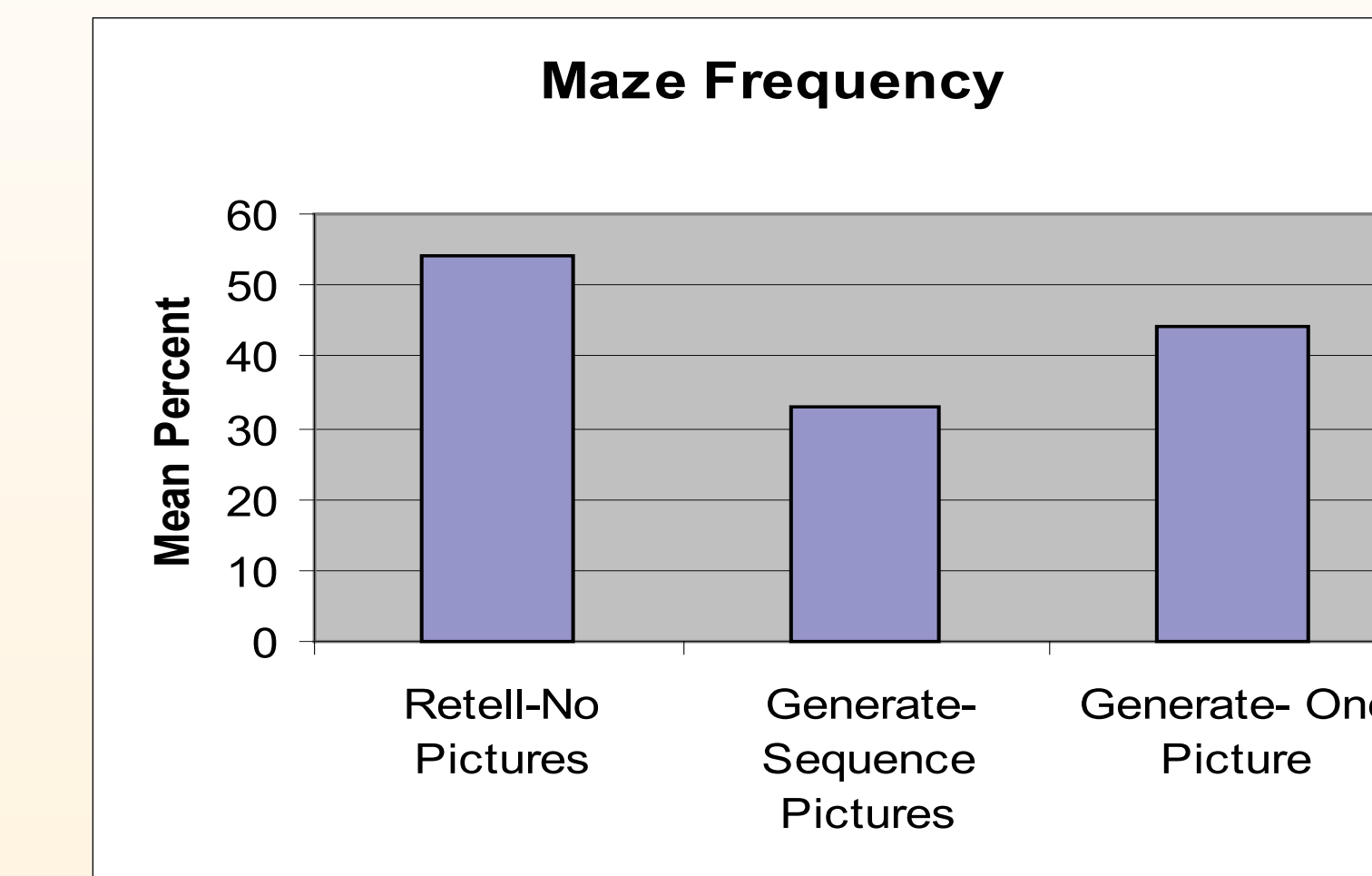
- Sequence Picture Story Generation

### Aliens

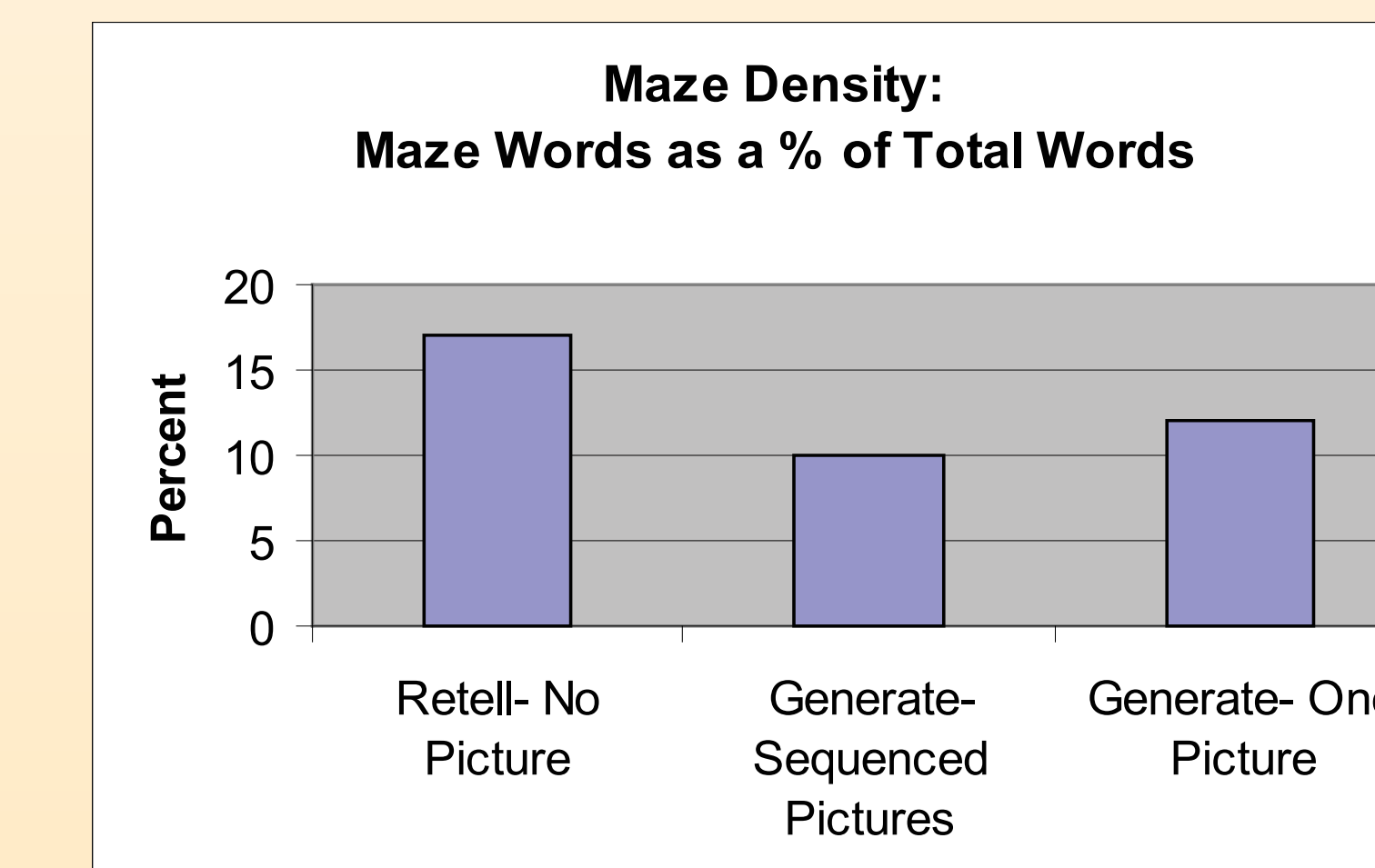


- One Picture Story Generation

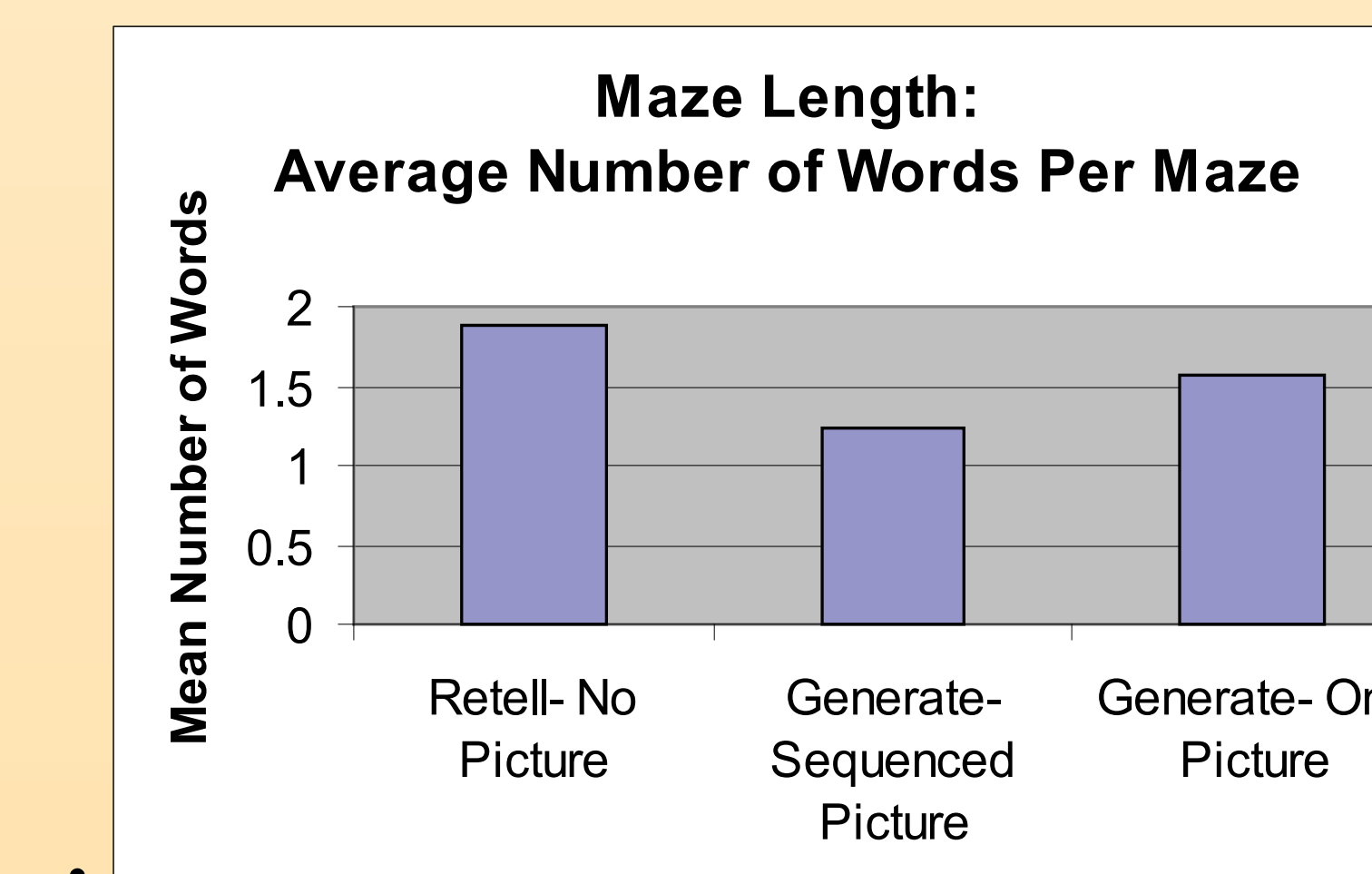
## Results



- More mazes in Retell than Story Generation (sequence pictures)  $p=.001$ ,  $d=.80$
- Fewer mazes in Story Generation (sequence pictures) than Story Generation (one picture)  $p=.05$ ,  $d=.43$



- More mazes in Retell than Story Generation (sequence pictures)  $p=.001$ ,  $d=.70$
- Fewer mazes in Story Generation (sequence pictures) than Story Generation (one picture)  $p=.01$ ,  $d=.24$



- More mazes in Retell than Story Generation (sequence pictures)  $p=.01$ ,  $d=.62$
- No difference between Story Generation (sequence pictures) than Story Generation (one picture)  $d=.24$

## Summary

- The children in this study were the least fluent in the retelling task.
- They were the most fluent in the story generation tasks which provided visual supports.
- Implications of study
  - Assessment:**

The type of narrative task will impact the frequency, density, and length of mazes.
  - Intervention:**

More success may be accomplished at first with story generation tasks that have sequential, visual support.

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