Defining the Problem

- "How we define a problem usually determines how we analyze it. It sends us in a particular direction. And how we analyze a problem—the direction we take—absolutely determines whether we find a solution and what the quality of that solution is.” - Morgan D. Jones

The Problem Defined

- To identify preschoolers who are having language difficulty so we can intervene and prevent academic failure

- Language Difficulty
  - Not just a language disability
  - Includes English learning
Direction - Solution

**Narrative Language**

- The language used when telling stories

- Stories
  - Genres
    - Personal – reflect direct experiences
    - Fictional – made up
  - Story Structure
  - Linguistic Structure

**Story Structure**

- *Story Grammar* = Main parts of the story
  - Causally and temporally related
- Reveal the plot or point of the story
- Reinforced and taught in American schools
  - Who was this story about?
  - What happened in this story?
  - How do you think it’s going to end?
Storytelling to Story Comprehension
Trina D. Spencer

RTI – EC Summit, 2012

Story Structure

- Character
- Setting
- Initiated Event (Problem)
- Attempt (Action)
- Internal Response (Feeling)
- Consequence (Ending)

Linguistic Structure

- The storyteller must create a context for the listener almost exclusively through the use of sophisticated language.
- Similar to written language
  - Adverbs (e.g., quickly)
  - Temporal subordination (e.g., When he was walking…)
  - Causal subordination (e.g., He was sad because…)
  - Elaborated noun phrases (e.g., The huge dog that was scary)
  - Mental & linguistic verbs (e.g., decided, thought)
  - Conjunctions (e.g., and, but)
  - Dialogue (e.g., He said, “I need a band-aid!”)

Narrative Language is Socially Important

- When children tell about their day at school, what happened on their vacation, or how they got hurt, they are narrating.
  - 70% of stories told by young children are personal stories (Preece, 1987).
- Good narrative skills allow for more language practice, increased peer attention, and approval from adults.

Narrative Language is Academically Important

- Early narrative abilities predict later academic performance.
  - Bishop and Edmondson (1987)
  - Fazio, Naremore, and Connell (1996)
  - Feagans & Appelbaum (1986)
- And specifically reading comprehension
  - Catts et al. (2002)
Narrative Language

- Considered a bridge skill between oral language and written language
- Narrative content and structure provide familiar context for learning
  - Personal stories
  - Culturally-relevant
  - Storybook reading

Why Narratives?

- Narratives
  ...can be the intervention target
  ...can be the intervention context
- Authentic
- Ubiquitous
- Useful

Story Champs

- Multi-tiered Curriculum
  - Manualized
  - Flexible
- Key Features
  - Carefully structured stories
  - Engaging visual materials
  - Explicit teaching procedures
  - Fun and motivating

Story Champs Stories: Level A

Story Grammar
- Opening with time element
- Character is named 4 times
- Secondary character is unnamed
- Setting includes an action and general location
- Initiating Event (problem)
- Feeling related to problem
- Attempt by main character
- Consequence (what results from the attempt)
- Ending (what happens after the problem is resolved)

Linguistic Complexity
- 68-70 words
- 1 instance of dialogue
- 1 temporal conjunction ‘then’
- 1 left-branching temporal subordinate clause using ‘After’ or ‘When’
- 2 Right-branching causal subordinate clauses using ‘because’
- 1 Pre-noun modifier (adjective)
- 1 Pre-verb modifier (adverbs)
Sample Level A Story

Last night, Hannah was walking down to the basement to play with her new doll. When she came down the stairs she saw her sister playing with her doll. Hannah was mad because she wanted to play with it. Hannah asked her sister to let her play. Then her sister cheerfully said, “That’s great. Let’s play together.” They played together with the doll because Hanna’s sister shared with her.

Engaging Visual Material

- Pictures for each story
  - 5 panels

- Story Grammar Icons
  - Character
  - Problem
  - Feeling
  - Action
  - Ending

Story Champs - Tiers

- Large Group
- Small Group
- Individual

- Intensity increases as group size decreases
  - More opportunities to respond
  - More explicit and individualized targets
  - More specialized prompting
  - More contingent feedback
  - More frequent sessions
  - Increasing duration
  - More reliance on instructors with greater expertise
Teaching Procedures

- More to come

Narrative Language Measures

Test of Narrative Retell (TNR)

PRESCHOOL EXAMINER'S MANUAL

Narrative Language Measures

Test of Narrative Retell, Preschool

Trina D. Spencer & Douglas B. Petersen
Narrative Language Measures

Preschool (NLM:P)

• A set of administration procedures for...
  - Test of Story Comprehension (TSC)
  - Test of Personal Generation (TPG)
  - Test of Narrative Retell (TNR)

Test of Personal Generation (TPG)

• Assesses language using a conversation elicitation technique adapted from Peterson & McCabe (1983) and McCabe & Rollins (1994).
• Examiner elicits personal stories while interacting with child in a very natural manner.
• Provide at least 3 opportunities to tell a personal story.
• Significantly limited by content relatability and the child’s willingness to tell a story.
• This is the most difficult narrative task we use.

TPG Variation

• Immediately following a child’s retell narrative (TNR), elicit a personal generation by asking, “Has something like that ever happened to you?”
• Samples a different dimension of their narrative skills in a very efficient manner
  - Content limitations
  - Motivation limitations
TNR: Preschool

- **Benchmark**: compare children to an age or grade criterion
- **Progress Monitoring**: show an individual child’s language growth over time

**Materials and Setting**
- The booklets are designed to be administered in order
- The progress monitoring stories can be administered in a different order or a story can be skipped.
- Stories should never be repeated

**Standardized Administration**

- Examiner says, “I’m going to tell you a story. Please listen carefully. When I’m done you are going to tell me the same story. Are you ready?”
- Examiner reads the selected story word for word in a moderate pace with normal inflection.
- Examiner says, “Thanks for listening. Now you tell me that story.”
- Examiner should wait 10-15 seconds before providing encouragement.
- If the child is reluctant, examiner encourages by saying “It’s okay. Just do your best.”
- If the child asks for help, examiner says, “I can’t help but you can just tell the parts you remember.”
- Examiner listens and makes only neutral comments such as “uh huh” and “okay.”
- Examiner may not repeat the story or any part of it, but can repeat the directions and provide encouragement as needed.
- When the child appears to be finished, the examiner says, “Are you finished?”
- If the child is not finished, the examiner should let the child continue.
- If the child does not tell a story even after encouragement the examiner says, “That’s okay. Thanks for listening to my story.”

**TNR:P with Pictures**

- Lay out pictures before beginning the story.
- As you read the story, point to the picture that depicts the part of the story.
- Allow child to see pictures during retell
Storytelling to Story Comprehension

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Analysis of Narratives (Scoring)

• Story Grammar Analysis
  – Entire story is the unit of analysis
  – Story completeness
  – Story Grammar: character, setting, problem, emotion, attempt, consequence, ending

• Linguistic Analysis
  – Words and clauses are the units of analysis
  – Language complexity
  – Language features: vocabulary, subordination, modifiers, causal and temporal markers and other aspects of grammar

Quality Narratives

• Narrative – an account of causally-related events in temporal order (aka. a story)
• Quality Narrative...
  – has a basic plot/episode structure
    • Initiating Event (problem)
    • Attempt/Action
    • Consequence
  – includes sophisticated language features that convey causal and temporal relations between key events (Ukrainetz, 2006).

✓ Quality is impacted by components and the clarity of the relations between components!!!
### Time Efficient, Economical

**Administration Time**
- Three benchmark TNRs take about 6 minutes
- A single TNR for progress monitoring takes about 2 minutes.
- Scoring can be done in real-time while the child is retelling the story to the examiner.
- Scoring can also be done by listening to an audio recording or by referencing a transcript of the child’s story.

### TNR Technical Adequacy

**Concurrent Validity**
- The Renfrew Bus Story and TNR \( r = .88 \)
- Index of Narrative Complexity and TNR \( r = .93 \)

**Reliability**
- Alternate Form Reliability \( .73-.88, p < .0001^* \)
- Fidelity of Administration (91%)
- Interrater Reliability (96%)
- Transcript and Real Time Scoring Reliability (90%+)
- Most recent real-time inter-rater reliability (95%+)

**Sensitivity to Change**
- INC average gain was 9.9 points
- TNR average gain was 13.7 points

### Teaching Procedures

- **Large Group**
  - Video
  - Study
- **Small Group**
  - Video
  - Study
- **Individual**
  - Study
- **Story Champs**
  - Head Start Study

### Table 1

<table>
<thead>
<tr>
<th>TIER</th>
<th>WHAT’S INCLUDED</th>
<th>PURPOSE</th>
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<tr>
<td>Large Group</td>
<td>12 stories (Level A &amp; Level B)</td>
<td>Model stories</td>
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<td>12 sets of story illustrations (large)</td>
<td>Visual support</td>
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<td>10 Champ Checks</td>
<td>Partner retell</td>
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<td>Teach story structure</td>
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<td>LEVEL A: character problem feeling action ending</td>
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<td>LEVEL B: character problem feeling action ending</td>
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<td>end feeling</td>
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Goals of Large Group Study

- Investigate the effect of a low intensity intervention on narrative production and comprehension
- Examine generalization from retell to personal narration
- Identify children who require more intense language services


Participants

- 71 children enrolled in Head Start
- 4 classrooms were divided into 2 groups
  - Matched on number of DLLs
    - 57% (20/35) of Intervention Group were DLL
    - 53% (19/36) of Control Group were DLL
- 2 Groups were randomly assigned
  - Control
  - Intervention (Story Champs)

Large Group Procedural Checklist

1. Model Story
   - Display 5 pictures
   - Tell the story
   - Place icons on pictures
   - Name the SG parts
   - Ask group the 5 parts

2. Story Gestures
   - Retell the story
   - Children play story gestures

3. Team Retell
   - Ask students to think of the story parts
   - Call on individuals before having the group repeat
   - Summarize the story

4. Partner Retell
   - Children retell story with partner
   - Assist as needed
   - Praise good “checking” and “telling”

5. Champ Ceremony
   - Children show trophy
   - Children clap and cheer for team

LARGE GROUP VIDEO

Signals
Story Gestures
Questioning
Individual Turns
Story Corrections
Partners
Model
Ceremony

Appendix B

LARGE GROUP VIDEO

Signals
Story Gestures
Questioning
Individual Turns
Story Corrections
Partners
Model
Ceremony
Test of Narrative Retell

Group x Time
F(2, 68) = 3.6, p = .03

ANOVA
F(1, 68) = 4.1, p = .046, d = 0.49
F(1, 68) = 4.45, p = .039, d = 0.51

Test of Story Comprehension

Group x Time
F(2, 68) = 7.22, p = .001

ANOVA
F(1, 68) = 5.41, p = .02, d = 0.56

Test of Personal Generation

Group x Time
F(2, 68) = .84, p = .44

ANOVA
F(1, 68) = 0.38, p = .54, d = 0.15
F(1, 68) = 0.16, p = .49, d = 0.10

Responsiveness: Identification

Responder
Gainer
Leveler
Minimal Responder

TNR: Level = 7; Gain = 2
TSC: Level = 5; Gain = 1
Conclusions

• Some children will need more intense intervention.
• Language complexity is not easily targeted in large group and differentiation is near impossible.
• Something more and/or different is needed to teach personal stories.
### Storytelling to Story Comprehension

Trina D. Spencer

#### Small Group
- 12 stories (Level A & Level B)
- 12 sets of story illustrations (medium)
- Story games: Story blocks, Story bingo cards, Story sticks
- Medium story grammar icons

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<tr>
<td></td>
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<td>Teach story structure</td>
</tr>
</tbody>
</table>

### Small Group Procedural Checklist

1. Model Story
   - Lay out 5 pictures
   - Model the story
   - Place icons on pictures
   - Name the SG parts

2. Team Retell
   - Leave pictures on table
   - Allow selection of SG icon
   - Each part of story retold
   - Each student places icon
   - Summarize the story

3. Individual Retell 1
   - Leave pictures and icons out
   - Select pre-assigned student
   - Distribute game materials
   - Each part of story retold
   - Play story game
   - Summarize the story

4. Individual Retell 2
   - Remove pictures
   - Select pre-assigned student
   - Each part of story retold
   - Play story game
   - Summarize the story

5. Individual Generation 1
   - Leave icons out
   - Select pre-assigned student
   - “Has something like that ever happened to you?”
   - Each part of story included
   - Play story game
   - Summarize the story

6. Individual Generation 2
   - Remove SG icons
   - Select pre-assigned student
   - “Has something like that ever happened to you?”
   - Each part of story included
   - Play story game
   - Summarize the story

### Goals of Small Group Study

- Extend previous research
  - Children with mild language delays
  - Four children in a small group
  - Address personal generations
- Estimate the number of sessions to criterion
- Estimate whether repeated modeling is sufficient to improve subordination


---

### SMALL GROUP VIDEO

Seating/Rotation: Personal Stories
Story Games: Differentiation
Scaffolding: Corrections
Prompting: Variations

### Appendix C

SMALL GROUP VIDEO

SeaFng/RotaFon

Personal Stories
Story Games
DifferenFaFon
Scaffolding
CorrecFons
PrompFng
VariaFons

### Goals of Small Group Study

- Extend previous research
  - Children with mild language delays
  - Four children in a small group
  - Address personal generations
- Estimate the number of sessions to criterion
- Estimate whether repeated modeling is sufficient to improve subordination

Participants

- 19 children in one Head Start classroom
- 5 of them with below average language skills were research participants
  - 1-Bilingual
  - 1-Dual Language Learner
- Divided into three groups
  - 1-2 research participants in each group

Primary Research Question
To what extent does narrative intervention improve preschoolers’ story retells?

- Low and stable baseline patterns for all participants.
- Clear level changes for Melanie & Ellie.
- Ascending trends for Jenny, Nicky, & Adam.
- With the exception of Jenny, improvements occurred within a few sessions.
- Effects were shown at three points in time and across five participants.

Secondary Question
To what extent does narrative intervention improve preschoolers’ personal narratives?

- Jenny, Melanie, Ellie, & Adam demonstrated improvements.
Outcomes of Small Group Study

- The moderately intense (groups of 4) intervention improved narrative retells.
- Intervention improved personal generations, but results were less clear.
- Estimated the number of sessions to criterion.
  - All participants met criterion within 11 sessions
- Determined that repeated modeling alone did not lead to improvements in the use of subordination.

Conclusions

- One or two participants might need a more intense intervention.
- There is potential for differentiation within the small group arrangement.
### Goals of Individual Study

- Investigate intensive procedures with preschoolers with disabilities
  - Teach story grammar first then use it as the context for teaching other language targets
  - Take Home component
  - Addressed wh- questions
  - Maintenance
Method

- 5 preschoolers with developmental disabilities
  - 4 Spanish-speaking DLLs; 1 American Indian
- Multiple baseline across participants
  - Test of Narrative Retell with and without pictures
  - Test of Story Comprehension
  - Cold assessment probes
- Each participant received 24 session
  - Twice a week for 10-15 minutes
  - 1-12 just story grammar
  - 13-24 specific linguistic targets
### Outcomes of Individual Intervention

- Gradual ascending trends for all children
- Transfer of storytelling from pictures to no pictures
- Wh- questions improved
- 3/5 improvements in personal stories
- Parents liked the Take Home activities
- Maintenance achieved

### Story Champs Head Start Study

- 55 Head Start preschoolers in 3 classes
  - Pre/Post: 3 large group sessions
- 20 were either gainers or minimal responders
  - 11 received small group intervention, following a monitoring period (baseline)
- MBD across groups in Control Group
- Small Group 1:4 - differentiated targets
  - 10 made adequate gains
  - 1 child moved to individual intervention (Tier 3)

### Differentiated Targets

<table>
<thead>
<tr>
<th>Character</th>
<th>Problem</th>
<th>Setting</th>
<th>Goal</th>
<th>Attempt</th>
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- = 2 points
- = 1 point
- = 0 points
Storytelling to Story Comprehension
Trina D. Spencer

YouTube Videos
Channel: LanguageDynamics

LanguageDynamicsGroup.com

For more information, contact:
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References


