

Sentences to Stories: Spoken Language RTL With At-risk Learners

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Economic costs of school underachievement

"the logic is quite clear from an economic standpoint. We can invest early to close disparities and prevent achievement gaps, or we can pay to remediate disparities when they are harder and more expensive to close...Investing early allows us to shape the future; investing later chains us to fixing missed opportunities of the past" (Heckman, 2011, p.47)

Heckman, J.J. (2011). The economics of Inequality: The value of Early Childhood Education. *American Educator*, 31-47.

Learner Objectives

Improve knowledge of how various language input factors influence language development.

Improve knowledge of how oral language skills contribute to reading.

Improve knowledge of an Rtl instruction model for children at risk for potential language impairment.

Improve knowledge of dialogic book reading and narrative interventions for at risk learners.

Low-SES and Language Skills

What are the possible effects on language development

- Reduced parental levels of education
- Reduced quantity and quality of input
- Reduced quality health care
- Reduced stable family environment
- Increased exposure to violence
- Increased levels of parental stress and depression

"Is language acquisition a data crunching process and conversation a delivery mechanism whose value lies, to a substantial degree, in the nature of the data it delivers?" (Hoff & Naigles, 2002)

Low-SES & Language Skills

Large scale outcome studies of children in poverty

- Children of the National Longitudinal Survey of Youth (NLSY; Baker et al., 1989).
 - 966 children evaluated at age three through eight with the PPVT-R
 - 45% of families experienced poverty at some point in the study
 - Children in persistent poverty scored more than 7 standard score points lower than children who had never experienced poverty
- Infant Health & Development Project (IHDS, 1997)
 - 895 children evaluated annually through 5 years of age, PPVT
 - Lower income associated with decreased vocabulary skills

Low-SES & Language Skills

Meaningful differences in the everyday experiences of young American children (Hart & Risley, 1995).

- Recorded and transcribed what parents and children actually did and said in their daily lives.
- 42 families participated:
 - 17 African American families; 23 girls and 19 boys.
- Monthly one-hour observations for 2 ½ years of sequential monthly recordings

Low-SES & Language Skills

Hart & Risley

- Average Family Data
 - 28 minutes per hour interacting with the child
 - 12 minutes per hour interacting with others
 - 20 minutes without talking
- Amount of time interacting increased once the child began learning words
- Extremes included an upper-SES family spending 48 minutes interacting; low-SES spending 17 minutes interacting
- Patterns of talking remained stable within families
- In general, the higher a family SES the more time spent interacting with their child.

Low-SES & Language Skills

Hart & Risley: Child Outcome Measures at 36 months.

- Vocabulary growth: Child's rate of vocabulary acquisition, measured as a trajectory of expressive vocabulary change at 3 years of age.
- Vocabulary use: Number of different words used per hour, measured at 34-36 months of age.
- IQ test score: Stanford Binet Test of Intelligence. Used as a measure of what a child has learned after three years of life.

Low-SES & Language Skills

Hart & Risley Child Outcome Measures

- Vocabulary growth and use were strongly associated ($r=.92$).
- Vocabulary growth and use were strongly associated with IQ
 - Vocabulary growth & IQ ($r = .70$)
 - Vocabulary use & IQ ($r=.73$)
- All three outcome measures were moderately associated with family SES.
 - Vocabulary growth & SES ($r = .65$)
 - Vocabulary use & SES ($r = .63$)
 - IQ & SES ($r = .54$).

Low-SES & Language Skills

Widening Gap in Child Vocabulary Growth

- High SES
 - 500 spoken words at 24 months; 1000+ at 36 months
- Mid & Low SES
 - 200 spoken words at 24 months; 700 at 36 months
- Welfare
 - 200 spoken words at 24 months; 500 at 36 months

CLINICAL KEY: Relationship between vocabulary size & grammatical development

- Strong link between lexical growth and expressive grammar
- Critical mass of vocabulary items for particular grammatical structures (Bates & Goodman, 1999).

Low-SES & Language Skills

Total number of words heard: Do children from Low-SES families have less data to crunch?

Average number of words heard per hour

- Professional: 2,150
- Working Class: 1,250
- Welfare: 620

Average number of words heard per year

- Professional: 12 million
- Working Class: 6 million
- Welfare: 3 million

Low-SES & Language Skills

It is NOT ALL ABOUT SES: Outcomes at 3 years of age.

SES vs Parenting Strategies (Hart & Risley, 1996)

- SES status accounted for 42% of variance in children's rate of vocabulary growth; Parenting (talking) strategies accounted for 61% of the variance.
- SES status accounted for 40% of variance in children's vocabulary use; Parenting (talking) strategies accounted for 61% of the variance.
- SES status accounted for 29% of variance in children's IQ score; Parenting (talking) strategies accounted for 59% of the variance.

Clinical Key: What Parents Say & Do has a Significant Impact on children's Language Learning.

Low-SES & Language Skills

Hart & Risley; Findings at 9-10 years of age.

- Walker et al., follow up with 29 of the H&R children.
- Parent (talking) strategies accounted for 61% of the variance in children's PPVT-R scores, SES accounted for 30% of the variance.
- Parent (talking) strategies accounted for 61% of the variance in children's TOLD scores, SES accounted for 24% of the variance.
- Language Performance remained stable over the time span
- Lower language standing of children from lower SES predicted lower academic achievement through 3rd grade.

Low-SES & Language Skills

Parental (Talking) Strategies Used by Parents

Language Diversity: Number of different nouns/modifiers spoken per hour

Feedback Tone:

- Positive: Parent repetitions, extensions, expansions of child utterances; Parent use of confirmations, praise, and approvals
- Negative: Imperatives to warn/prohibit; disconfirmations, criticisms, disparagements.

Symbolic Emphasis: Richness of nouns, modifiers, and past tense verbs in parent utterances per hour

Guidance Style: How often a child is asked rather than told what to do (indirect vs direct requests).

Responsiveness: Parent utterances that followed a child's initiation (core of teaching within the zone of proximal development).

Low-SES & Language Skills

Language Diversity related to child vocabulary use.

Feedback Tone related to rate of vocabulary growth and IQ

Symbolic emphasis was strongly related to vocabulary use.

Guidance style was strongly related to vocabulary growth and IQ

Responsiveness was independently related to vocabulary growth, vocabulary use, & IQ

Low-SES & Language Skills

CLINICAL KEY: Translating findings into practice. Teach Parents To:

- Talk more often
- Provide diverse language experiences
- Provide more encouragement to learn
- Be responsive to their child
- Talk about the child's interests
- Encourage autonomy
- Ask for, rather than, demand compliance
- Name and explain everything whether or not your child cares or understands (yet).

Low-SES & Language Skills

Language Input & Child Syntax (Huttenlocher, et al., 2002).

- 34 Ss, 54-60 months; low & middle SES
- Language samples obtained in 10 different situations
- Simple and complex syntactic patterns explored
- Middle SES children had a higher proportion of complex syntax
- Middle SES adults had a high proportion of complex syntax

Proportion of complex sentences by adult was best predictor of syntactic complexity of child speech.

Proportion of complex sentences in parental speech was best predictor of child comprehension of syntactically complex utterances.

Low-SES & Language Skills

Language input & child syntax (Huttenlocher et al., 2001).

Is input a source of syntactic growth?

40 classrooms; mixed SES levels; 305 Ss;

- SES moderately related to children's comprehension of complex sentences at beginning of school year but not at school end
- Proportion of multicausal sentences in teacher talk varied from 11 to 32%, mean was 21% at beginning of the school year.
- Child sentence comprehension was not correlated to teacher talk complexity at beginning of the school year
- Child gains in sentence comprehension was related to the complexity of teacher talk at the end of the school year. Children from Low-SES families, with lower levels of syntactic development, may exhibit equal or greater gains in their syntactic development as compared with children from Higher-SES levels, BUT ONLY IF THEIR TEACHERS PROVIDE INPUT COMPARABLE TO OR GREATER THAN THE INPUT IN HIGHER SES PRESCHOOLS.

Low-SES & Language Skills

To what extent are the spoken language skills of children reared in poverty depressed in comparison with the general population (Locke, Ginsborg, & Peters, 2002).

240 UK Ss, 37-50 months old; CELF-P administered.

Receptive Language mean = 84.99; Expressive Language Mean = 85.45; Boys performed significantly lower than girls.

Levels of Severity (Wiig et al., 1992)

- Moderate language delay ss=78-85
- Moderate to severe language delay ss = 71-77
- Severe language delay ss < 71.

26% had receptive language delay; 24% had expressive language delay, 30% had a language delay

Low-SES & Language Skills

Are less successful children DEFICIENT in their English language skills and does a child's difficulty with literacy arise from the deficient language skills?

Do less successful children have DIFFERENT language skills that result in a mismatch between the child's skills and the curriculum demands of a traditional literacy approach?

Should we use a PRAGMATIC criterion? Could a DIFFERENCE be interpreted as a DEFICIT if it has negative consequences for a child's future success?

Hoff, E. (2013). Interpreting the early language trajectories of children from Low SES and language minority homes: Implications for closing achievement gaps. *Dev. Psy.* 4-14.

Low-SES & Language Skills

Do SLPs have a role in addressing the underachievement of children who are in the low-average/mildly impaired range (standard score 78-85) for oral language skills?

"A child might be considered language impaired if his language skills place him at risk for social disvalue at present or in the future" (Fey, 1986).

"Should we facilitate the language skills of all children, including but not limited to those children for whom SES may be a causal factor in language impairment?" (Schuele, 2001)

Are oral language skills related to reading and academic success?

Relationship between Language & Reading

Willows & Ryan (1986). Measures of syntax accounted for 19% of variance ($r = .44$) in READING FLUENCY.

Bowey & Patel (1988). TOLD Sentence Imitation was a moderate predictor of reading comprehension ($r = .54$).

Lombardino et al., (1997). CELF-R expressive language composite and phonemic awareness accounted for 59% of variance in word attack skills ($r = .77$); expressive language accounted for 49% of the variance in reading comprehension ($r = .70$).

Oakhill et al., (2003). Measures of story structure (i.e., narrative) knowledge strongly predict reading comprehension at ages 7-10.

Perfetti et al., (2005). Answering inferential questions, monitoring comprehension, and understanding story structure predicted reading comprehension levels.

Relationship between Language & Reading Iowa Longitudinal Study (Tomblin & Nippold, 2014)

Language measures used in the Iowa Longitudinal Study (Catts et al., 2014).

Test of Language Development: Primary.

- Grammatical Understanding
- Grammatical Completion
- Sentence Imitation
- Picture Identification

Narration Story Task (Culatta et al., 1983).

Grey Oral Reading Test.

Woodcock Reading Mastery Tests.

- Word Identification
- Word Attack

Relationship between Language & Reading

Catts et al., (2014). Kindergarten Oral language composite score was a strong predictor of reading comprehension in 2nd grade.

- Oral language measures accounted for 54% of variance in 2nd grade reading comprehension and 42.9% in 2nd grade word recognition for SLI students.
- Phonological awareness & rapid naming accounted for 41% of the variance in 2nd grade reading comprehension and 38% in 2nd grade word recognition for SLI students.
- 37.2% of Kindergarten poor readers had deficits in both oral language and phonological processing (PP), only 14.3 had a sole PP deficit.
- Large percentages of poor readers performed at least 1 SD below the mean on vocabulary (39%), narration (44%) and grammar (56%).
- 5 Kindergarten variables predicted 2nd grade reading outcome: Letter Identification, Sentence Imitation, Mother's Education, PP, and Rapid Naming.

Relationship between Language & Reading Catts et al., 2014.

Children with LI followed from 2nd through 10th grade

SLI children with reading impairment (RI): 41.8% in 2nd; 35.9% in 4th.

NLI children with RI: 67% in 2nd; 63.7% in 4th.

10th grade LI students exhibited 6th grade performance in reading comprehension & 5th grade performance in word recognition.

10th grade typical learners exhibited 10th grade performance in reading comprehension & 7th-8th grade performance in word recognition.

No significant difference in shape of reading growth trajectories for LI students.

Children with LI who have lower initial reading levels FAIL TO CATCH UP over time.

Relationship between Language & Reading Catts et al., 2014.

Measures of oral language skills account for significant variance beyond phonological processing skills.

LI children who start out as poor readers remain poor readers.

Presence of LI in kindergarten may be an important risk factor for reading disability.

There is a need for early oral language screening.

Language screening must address vocabulary, syntax, and narration in addition to phonological processing skills.

Response to Intervention (RtI) & Multi Tier Systems of Language Support (MTSS).

SES (as measured by parent education level) predicts preschool children's oral language skills at school entry which that predicts school success and educational attainment (JHoff, et al., 2012).

Can we use RtI/MTSS to improve the oral language skills of children at risk for oral and written language impairments?

Basics of RtI/MTSS (Ehren et al., 2009).

Student Outcome Measure/Universal Screening

High Quality (Scientifically Based) Instruction/Intervention

Progress Monitoring/Formative Assessment

Data Based Decision Making

Education Decision Making based on Responsiveness to Instruction/Intervention

Instruction/Intervention Intensity may Change Based on Performance

Selection of a Universal Screening Tool

Universal screening should address an area of oral language that is highly related to academic success

Universal screening is administered to ALL students in the instruction group

Results of the Universal Screening are used to inform classroom instruction, not to refer for special education services

The Universal Screening Tool is used to monitor student progress throughout the school year.

Universal screening results help to determine whether the classroom functions as a facilitative education system.

Selection of a Universal Screening Tool

Norm referenced

Determine presence/absence of a language impairment

Sensitivity & Specificity values

Address the target age

Measurement of an oral language skill highly related to reading ability and academic success

Universal Screening Tool-Structured Photographic Expressive Language Test: Preschool 2

- No norm referenced test of narration
- Vocabulary tests lack adequate sensitivity and specificity

Structured Photographic Expressive Language Test: Preschool 2

40 item picture description/sentence completion tasks with specific morpho-syntactic targets.

Age range was 3:0 through 5:11 years

Norm referenced with standard scores and percentile ranks at 6 month intervals.

Sensitivity and specificity values existed for 4 years (Greenslade, et al., 2009).

- Sensitivity was 90.6, Specificity was 100% when a cut-off standard score of 87 was utilized.

Relatively short administration and scoring time (10-12 minutes)

Rtl for Oral Language Project with Low-SES children.

Head Start and Great Start Readiness Programs (75 children)

SPELT2 as the Universal Screening Tool

SPELT2 administered in October, February and May

Rtl Tiers based on SPELT2 Standard Score Ranges

- Tier 1 SPELT2 SS of 87 or greater
- Tier 2 SPELT2 SS between 78 and 86 (moderate language impairment)
- Tier 3 SPELT2 SS less than 78.

Tier 2 children received Classroom-Based Oral Language Instruction

Tier 3 children received Classroom-Based Oral Language Instruction and twice weekly, in class individualized language intervention.

2013-2014 Rtl Oral Language Project: Tier 2 Findings

Student	13-Oct	14-Feb	14-May
1	80(73-95)	111*	100*
2	80(69-92)	94*	98*
3	82(73-95)	86	84
4	82(71-93)	100*	98*
5	80(69-92)	94*	98*
6	83(71-95)	98*	95
7	83(71-95)	89	117*
8	86(75-98)	91	114*
9	80(70-91)	84	107*
10	82(72-93)	89	89
11	78(68-89)	86	96*

2013-14 Rtl Oral Language Project: Tier 3 Findings

Student	13-Oct	14-Feb	14-May
1	70(59-81)	75	78
2	53(42-65)	89*	92*
3	65 (57-73)	77*	78*
4	68(57-79)	73	92*
5	74(62-86)	79	89*
6	56(44-68)	56	79*
7	51(40-63)	65*	68*
8	77(66-88)	84	75
9	61(51-71)	63	67
10	54(42-66)	51	65
11	68(57-79)	73	109*
12	72(62-82)	63	69
13	68(57-78)	75	80*
14	74(64-84)	80	96*
15	72(61-83)	98*	95*

2013-2014 Rtl Oral Language Project: Annual Calendar

September/October 2013: Universal Screening

October 2013 Students assigned to Tiers

November 2013: Teacher Inservice

November 2013-January 2014: 9 Week Intervention Period

February 2014: Universal Screenings (Tier 2 & 3 only)

February – May 2014: 9 Week Intervention Period

May 2014: Universal Screening Tiers 1-3

2013-2014 RtI Oral Language Project: Teacher Inservice

Introduced teachers to the RtI: Oral Language Project

Reviewed core concepts with teachers in a lecture presentation. Topics included RtI, Relationship between Low-SES & oral language skills; Universal screening; SPELT2; Dialogic Book Reading; Conversational Recasts.

Reviewed RtI universal screening results on a child by classroom basis

Stressed the CRITICAL role that the teachers would have in facilitating oral language skills and the SLP role as SUPPORT personnel.

2013-2014 RtI Oral Language Project: Classroom Based Tier 2 & Tier 3 Instruction

Tier 2 Instruction: Dialogic Book Reading (DBR)

- 4 Weekly Sessions; Teacher led three times weekly; SLP led once weekly
- Specific turn allocation devices with Tier 2 & 3 children
- SLP Recasted utterances from all children during DBR
- Teachers attempted to recast utterances from all children in DBR

Tier 3 Instruction: Focused Stimulation/Conversational Recasts in Student Choice Activity Centers; & Dialogic Book Reading

- Objective specific models (Focused Stimulation)
- Objective specific conversational recasts
- SLP coached and provided feedback for teacher use of conversational recasts

2013-2014 RtI Oral Language Project: Classroom Based Oral Language Instruction

Dialogic Book Reading Method

- Conversations about books
- Picture walk & Book reading

Focus on a Literate Language Style

- Focus on complex sentence production
- Literacy Based Language Intervention (Gillam & Ukrainetz, 2006).

Specific Book List & Event Calendar

- Two Nine Week Instruction Periods
- Books selected on basis of syntactic structure and story grammar
- SPELT2 as the progress monitoring tool

Tier 2 Oral Language Instruction Method: Dialogic Book Reading

DBR encourages shared reading to improve oral language through conversations or dialogues about book pictures and story

High levels of book re-reading are provided. Each book was read 4 times during the weekly instruction.

Student vocabulary and grammatical skills were facilitated through the use of open ended questions, teacher comments, conversational recasts, and forced choice strategies.

DBR may appear “messy” because the children are given many opportunities to participate in conversations about a book as opposed to the static listening role in traditional book reading.

DBR Weekly Schedule: Monday & Tuesday

Picture Walks that focus on:

- Discuss vocabulary: emotion words, salient verbs, specific objects in the pictures
- Use open questions that emphasize the features of objects (e.g., shape, size, color, location, attributes) as well as describe events.
- Recast the student’s utterance by repeating what was said and adding some words. Try to include TWO VERBS in your conversational recast.

Read the Book

- Children are becoming familiar with narrative structure through story re-tellings

DBR Weekly Schedule: Wednesday & Thursday

Read the Book:

- Encourage choral reading
- Use cloze/sentence completion strategies
- Use “turn-about.” Recast the child’s answer and then ask a follow-up question to extend the answer.

Recast and Comment on the following:

- Children’s predictions of what will happen next
- Children’s answers to open ended questions (e.g., Tell me something about what happens on this page).
- Child initiated comments that are RELATED to the book content, including personal references.

Target Book: Brown Bear, Brown Bear

Phase 1: Picture Walk and Conversational Recasts

Talk about the animals in the book

- Compare and contrast animals on the basis of color, size, components, and habitat.

Possible Vocabulary

- Animal names, words specific to the animal (e.g., beak, fins, mane, etc)

Complex Sentence Form Modeled

- Sentential Complement/Full Propositional Complement

Read the Book

Target Book: Brown Bear, Brown Bear

Phase 2 Read the Book; Conversationally Recast

Read the Book

- Use Cloze/Sentence Completion strategies (e.g., Teacher: I see a blue horse::Children: looking at me).

Facilitate Text Predictions

- Which animal do you think we will see next?
- Ben thinks it will be the blue horse, what do you think

DBR Book List: First Nine

Happy Birthday Moon by Franklin Ash

It's My Birthday by Helen Oxenbury

Red Is Best by Kathy Stinson

I Know an Old Lady who Swallowed a Fly by Nadine Westcott

Is Your Momma a Llama? By Debroah Guarino

Brown Bear, Brown Bear by Bill Martin

The Cow that Went Oink by Bernard Most

What Do You Do With a Kangaroo by Mercer Mayer

Does a Kangaroo Have a Mother Too? by Eric Carle

DBR Book List: Second Nine

Mushroom in the Rain by Mirra Ginsborg

There's Something in My Attic by Mercer Mayer

There's a Nightmare In My Closet by Mercer Mayer

If You Give a Mouse a Cookie by Laura Numeroff

Harry and the Terrible Whatzit by Dick Gackenbach

Mrs. McNosh Hangs Up Her Wash by Nadine Westcott

A New House For Mouse by Petr Horacek

Six Sleepy Sheep by Jeffie Ross-Gordon

The Jacket I Wear in the Snow by Shirley Neitzel

Strategies Used by Teachers during DBR

Posting child specific (no identifiers) in areas of the room that were easily accessed.

Developing visual aids for the stories and the weekly structure (i.e., Picture Walk vs Story Telling).

Arranging classroom schedule to more effectively implement DBR.

- DBR conducted with half of the class while the other half went to the bathroom.

2013-2014 Oral Language Project. Teacher Interviews: Post Intervention

Wide style and variation in what visual supports were used during DBR as well as student groupings

Teachers stressed the importance of the SLPs modeling both the DBR and Conversational Recast strategies in the two classroom events.

Books with a story/plot were more interesting to the children as the year progressed.

Repetitive story books became less interesting to the children as the year progressed.

Focus on complex sentences first nine; narratives second nine.

Teacher Interviews: Post Intervention

Novel books were better received.

Having smaller groups made it easier to make sure each child had a chance to comment, made recasting easier.

"I paid attention to the sentence." "I liked knowing what they were supposed to work on with a particular story, like when the words were underlined."

"They learned to view themselves as readers, and would pick up books and "read" them to each other."

"I could see that the children were using longer sentences during conversations."

Incorporating Narration into MTSLS

Language outcomes of contextualized and decontextualized language intervention: Results of an early efficacy study (Gillam, et al., 2012).

Contextualized Language Intervention

- Facilitate multiple linguistic targets or curriculum-related skills in authentic contexts
- Activities are rich, meaningful and have coherent references to people, objects, and actions

Decontextualized Language Intervention

- Language skills are taught in discrete events
- Events are teacher-directed
- Minimal topic continuity across intervention events

CLI & DLI

24 children; SS < 85 on CELF4; 6:0-9:0

Random group assignment to either CLI or DLI (8 per group); 8 Ss in a no treatment control group (CON).

CLI was structured around children's literature

- Modified DBR: 4 different books; bed time and party topics
- Instruction provided in authentic, curriculum-related discourse activities

DLI

- Answered questions and played games with the No-Glamor series (LinguSystems, 2004; Grammar: Social Language/Behavior; Category/Definition language cards
- Lack of topic continuity

CLI & DLI

Dosage & Attendance

- Public School; 3 x wk, 50 min sessions; 6 weeks
- Groups of 3 to 4
- Attendance was equivalent across both intervention contexts

Measures

- CELF 4 Related and Formulated Sentences Subtests
- Test of Narrative Language (TNL)
- Monitoring Indicators of Scholarly Language (MISL: Gillam & Gillam, 2008). The MISL is a revision of the Index of Narrative Complexity

CLI & DLI: Results in terms of Effect Size

CELF 4 Recalling Sentences

CLI > DLI

CELF 4 Formulated Sentences

CLI > DLI;

The effect size for the CLI intervention was 81% greater for sentence level measures.

TNL Index Score

CLI > DLI

Narrative Comprehension Score

CLI > DLI

MISL macrostructure

CLI > DLI

MISL microstructure

CLI & DLI > CON

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Classroom based narrative language intervention.

Students provided with explicit instruction on story grammar components and complex episodic structures.

Students provided with instruction in story comprehension.

Explicit focus on improving vocabulary skills

Study focus was on whole classroom narrative instruction conducted by an SLP

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Do high-risk and low-risk students who receive classroom narrative instruction from a SLP perform differently on narrative measures than high-risk and low-risk students who did not receive whole classroom narrative language intervention from a SLP?

Do high-risk and low-risk students who received classroom narrative instruction from a SLP perform differently on vocabulary measures than high-risk and low-risk students who attended a classroom that did not receive whole classroom narrative instruction from a SLP?

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

43 students; two Title I classrooms. Monolingual and bilingual students. Aged 6;6 to 7;4.

Measures

- Test of Narrative Language (TNL). Cut-point standard score of <90 (25th percentile) for high-risk students.
- Spontaneous narrative samples.
- Vocabulary Responses: Criterion referenced vocabulary probe and rubric (e.g., Tell me what X means).
- Monitoring Indicators of Scholarly Language (MISL; Gillam & Gillam, 2013).

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Both classrooms had similar structure and reading/listening comprehension instruction.

Narrative instruction included modeling, guided and independent narrative production practice, and think-alouds with graphic organizers.

Vocabulary instruction occurred during reading and listening comprehension time

- 3-4 Tier 2 words per day
- Student friendly definitions and examples

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Narrative Instruction Component

- Story modeling, story retelling, story generalization and comprehension instruction
- Wordless Picture Books
- Three Phases
 - Phase 1: Teaching Story Grammar Elements
 - Phase 2: Elaboration – Making Stories Sparkle
 - Phase 3: Independent Story Telling

Vocabulary Instruction Component

- Repeat and use target vocabulary in story discussions

Pictography

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Post Test total MISL score for experimental classroom associated with a large effect size ($d = .82$).

Only high-risk student's performance reached clinical significance on the MISL (i.e., effect size $d = 1.0$)

Low-risk student performance did improve (effect size $d = .53$) relative to the control classroom.

High-risk children began with lower MISL scores than low-risk children but ended with post test MISL scores that were similar to low-risk children.

Low-risk children in the control classroom retained their narrative advantage over the high-risk students at the end of the study.

Clinical Key: Whole risk narrative instruction benefited high-risk students more than low-risk students. Additionally, high-risk students receiving whole class narrative instruction had effect sizes 6 times greater than control subjects.

Classroom-Based Narrative & Vocabulary Instruction Gillam et al., 2014).

Vocabulary Outcomes

- High-risk students in the experimental classroom exhibited significant gains with a moderate effect size ($d = .66$)
- Low-risk students in the experimental classroom exhibited more significant gains with a very large effect size ($d = 2.28$).
- Vocabulary scores for the control students did not improve from pre-test to post-test.

Clinical Keys

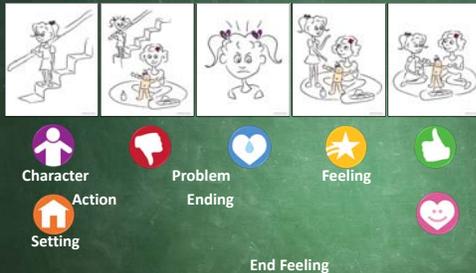
- Systematic instruction in specific vocabulary targets facilitates lexical growth.
- High-risk students may require vocabulary instruction that is more intensive and systematic.

Narrative Language Measures (NLM) Spencer, T.D. & Petersen, D.B. (Language Dynamics)

Test of Narrative Retell

- Five different levels: Preschool, K, 1, 2, 3
- Narrative organization based on story grammar
- Narrative reflects language complexity
- TNR is a criterion referenced measure
 - 9 Benchmark stories (Fall, Winter, Spring)
 - Administer 3 stories and use the best performance
 - 16 additional stories for continuous progress monitoring
 - Bi-weekly or monthly progress monitoring
 - Story administration time is 2 minutes per story,
 - On line scoring or audio taped transcription

Story Grammar



Test of Narrative Retell: Preschool Scoring Guidelines

Components: Character, Setting, Problem, Emotion, Attempt, Consequence and Ending
Each component is scored as 0, 1, or 2 based on a content rubric.

Scores of 2 imply that the utterance stands alone, with no need for the listener to have shared knowledge of the story.

Scores of 1 imply that the child has provided some information, but not enough for the listener to understand the story.

No established cut scores to determine whether a child performs at grade level.

Story Champs: A Multi-Tiered Language Intervention Curriculum (Spencer & Petersen, 2013).

Authentic, contextualized narrative intervention strategy

Target stories include simple and complex syntax; embedded vocabulary; and underlying story grammar basis.

Intervention includes visual mediation tools, clinician scaffolding, multiple story retells and personal story generation.

Intervention also includes the use of story games and listener comprehension tasks.

Spencer, Petersen, & Adams (2015). Tier 2 language intervention for diverse preschoolers: An early stage randomized control group study following an analysis of response to intervention.

Headstart classrooms, primarily minority students, English as dominant language.

Tier 2 students selected on basis of dynamic assessment procedure based on the NLM.

22 Tier 2 support children. 12 Treatment & 10 Control children.

Measures: NLM, Renfrew Bus Story, CELF-P.

Two, 9-week treatment segments.

Story Champs conducted in small group format with take home materials.

Spencer, Petersen, & Adams (2015). Tier 2 language intervention for diverse preschoolers: An early stage randomized control group study following an analysis of response to intervention.

Pretest NLM ns, post test & follow up NLM significant group differences with treatment group mean > control group mean.

Post Test Renfrew Bus Story information score post test significant group differences with treatment group mean > control group mean.

Post test mean Renfrew Bus Story sentence length measure, no significant group differences.

Follow up occurred four weeks post treatment.

Recommended MTSLs for At-Risk Learners

Tier 1: Teacher conducted Dialogic Book Reading with recasts of student utterances; Story Champs conducted in large group format.

Tier 2: Teacher conducted Story Champ program in small group formats; bi-weekly progress monitoring of student progress for a 6-10 week intervention cycle by SLP.

Tier 3: Story Champs conducted in individual or pair formats; bi-weekly progress monitoring by SLP.

Special Education Referral Process

Summary & Conclusions

Significant relationships between Low-SES & language skills.

Significant relationships between Low-SES & academic skills.

Reading achievement is highly related to broad oral language skills as well as phonological processing skills.

Children with LI tend to exhibit reduced literacy skills and do not catch up with their typical peers.

RtI/MTSLs can be utilized to facilitate the oral language skills of children at risk for decreased academic achievement.

Question Remains: Will improved oral language outcomes for at risk children result in improved literacy skills?