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# A Large-Scale Clustered Randomized Control Trial Examining the Effects of a Multi-Tiered Oral Narrative Language Intervention on Kindergarten Oral and Written Narratives and Oral Expository Language

Mollie Paige Brough  
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A Large-Scale Clustered Randomized Control Trial Examining the Effects of  
a Multi-Tiered Oral Narrative Language Intervention on Kindergarten  
Oral and Written Narratives and Oral Expository Language

Mollie Paige Brough

A thesis submitted to the faculty of  
Brigham Young University  
in partial fulfillment of the requirements for the degree of  
Master of Science

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## ABSTRACT

### A Large-Scale Clustered Randomized Control Trial Examining the Effects of a Multi-Tiered Oral Narrative Language Intervention on Kindergarten Oral and Written Narratives and Oral Expository Language

Mollie Paige Brough  
Department of Communication Disorders, BYU  
Master of Science

The purpose of the current study was to examine the effects of a multi-tiered oral narrative language intervention on kindergarteners' oral and written narrative and oral expository skills. The participants included 686 kindergarten students from four school districts in the upper Midwest. They were randomly assigned at the classroom level to a treatment or control condition. The treatment group received large group (tier-1) oral narrative language instruction led by classroom teachers and followed the *Story Champs* procedures. Students whose oral narrative retell skills did not improve after one month of large group instruction were placed in small groups and received more intense oral narrative language instruction in addition to Tier 1 instruction. Tier 2 instruction followed the *Story Champs* small groups producers and was administered by speech-language pathologists. At posttest, students' narrative retell, personal story generation, narrative writing, and expository retell scores were analyzed. The treatment and control groups were compared across all measures. The Tier 2 treatment group was also compared across all measures to matched samples of at-risk, average, and advanced students in the control group. The results indicate that the treatment group made significant improvements across all measures when compared to the control group. Tier 2 students consistently performed similarly to or significantly outperformed their at-risk, average, and advanced peers across all measures with the exception of expository retell. This study demonstrates the effectiveness of a multi-tiered oral narrative language intervention in improving the narrative and expository language skills of kindergarten students. Future research is needed to determine the effects of implementing an explicit expository oral language intervention on kindergarten students' language skills.

Keywords: oral language, narrative, writing, multi-tiered intervention, kindergarten

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## DESCRIPTION OF THESIS STRUCTURE

To adhere to traditional thesis requirements and journal publication formats, this thesis, *A Large-Scale Clustered Randomized Control Trial Examining the Effects of a Multi-tiered Oral Narrative Language Intervention on Kindergarten Oral and Written Narratives and Oral Expository Language*, is written in a hybrid format. The initial pages of the thesis adhere to university requirements while the thesis report is presented in journal article format. The annotated bibliography is included in Appendix A. Appendix B contains information regarding the Pretest CUBED Narrative Language Measures followed by Appendix C, which contains the *NLM* Flow Chart used to score the personal story generation and writing samples. Appendix D includes the Pretest Expository Language Retell Measure. Appendix E includes the Large Group Narrative Intervention Fidelity Checklist. Appendix F contains the Small Group Narrative Intervention Fidelity Checklist. Appendix G contains the IRB approval form.

## Introduction

Strong oral language skills are foundational for academic success. Specifically, literate oral language plays a large role in supporting reading and writing development (Nippold, 2004; Westby, 1985). Literate language differs from informal language in part by integrating abstract, low-frequency and decontextualized vocabulary and complex syntax. Paul, Norbury, and Gosse (2018) highlights the use of literate language in academic settings through shared book reading, storytelling, reading, writing and other forms of communication that take place in the formal academic setting. According to Westby (1985), oral narrative language in particular bridges the gap between contextualized language children are exposed to in the home, and the formal, decontextualized literate language which is required for academic success.

The manner by which children understand spoken and written language depends on complex, yet similar cognitive processes. An understanding of the content, use, and form of language is prerequisite to extracting meaning from written text similar to how one would with spoken language. Thus, children who struggle to understand oral language will also have difficulty gathering meaning from what they read (Paul et al., 2018). Many researchers have found the language skills of children as young as 4-years old to be predictive of later literacy skills (Griffin, Hemphill, Camp, & Wolf, 2004). For example, Dickinson and Tabors (2001) examined the receptive language abilities of kindergarten students and found that reading comprehension in seventh grade was strongly correlated. In a meta-analysis of four longitudinal studies, Larney (2002) found that children with a variety of early expressive language problems experienced later academic challenges including difficulty with reading comprehension and narrative generation. Similarly, Chaney (1998) found a strong relationship between overall language development at age 3 and reading performance, including reading comprehension at

age 7. Furthermore, Lee (2010) examined the expressive language of 1,071 typically developing 2-year old children and assessed literacy and language skills periodically from ages 3 to 11. A variety of language and literacy assessments were performed including measures of reading comprehension and expressive and receptive language. Results showed a positive relationship between early language and later literacy. They found that vocabulary size and linguistic complexity at age 2 were both good predictors of literacy skills up to fifth grade.

In addition to correlative studies, research has also indicated that there is a causal relationship between language and literacy (Barton-Hulsey, Sevcik, & Ronski, 2017). Clarke, Snowling, Truelove, and Hulme (2010) found that reading comprehension difficulties were directly improved as a result of oral language instruction. In fact, this study examined the effects of three interventions: text-comprehension training, oral-language instruction, and a combined text-comprehension and oral language training. They found that while all three groups made gains in reading comprehension, the group that exclusively received oral language instruction maintained the largest gains at 11 months following intervention.

### **Oral Language and Writing**

In addition to the development of adequate reading comprehension, oral language is fundamental to academic writing. Researchers have long considered writing to simply be an alternate form of expressive language (Berninger, 2000; MacArthur, Graham, & Fitzgerald, 2017). Writing is a later developing skill compared to speaking and listening and consequently is significantly affected by precursory development of oral language (Berninger, 2000). The process of writing includes both text generation or formulating and organizing ideas and transcription, which involves the mechanics of writing and representing language through written symbols (Spencer & Petersen, 2018). Writing requires one to draw upon knowledge of many

complex features of language, including aspects of syntactic structure and organization, phonological awareness, meaning and vocabulary, and pragmatics. A child's establishment of these skills provides the foundation for progress in writing development (MacArthur et al., 2017). For example, Scott and Windsor (2000) examined several measures of general language performance of school-age children with Developmental Language Disorder (DLD) and compared them to those of their chronological-age and language-age peers. The children were asked to produce written and spoken summaries of a narrative or expository video. It was found that the participants with DLD produced 40%-60% less language in spoken and written tasks compared to typically developing peers of their same age. Grammatical errors were found to be noticeable in spoken forms of language and more extreme in writing with expository writing being exceptionally difficult. Griffin et al. (2004) examined early discourse skills from a group of children at age 5, including both oral narrative and expository measures. At age 8, reading comprehension and written narratives were assessed. The findings suggested that in addition to a relationship between oral narration at age 5 and later reading comprehension, oral discourse of both narrative and expository texts was also associated with written narrative skills at age 8.

Spencer and Petersen (2018) examined a causal relationship between oral language intervention and the quality of written narratives among first graders. Participants received small group oral narrative instruction focusing on story grammar for the course of two weeks. Following intervention, the children provided written narrative samples which were analyzed for language and story grammar complexity. Results indicated that following oral narrative instruction all but one student made significant gains in overall writing quality. Specifically, post intervention writing samples were longer, included more story grammar elements, more complete episodes, and overall better quality compared to narrative samples collected at baseline.

Furthermore, additional writing samples were collected 3-4 weeks following instruction to determine if these gains would persist in the absence of simultaneous oral narrative instruction. All of the students who made gains immediately following intervention continued to maintain improvements 3-4 weeks post intervention, demonstrating that instruction specifically targeting narratives through oral language intervention has a causal relationship on the quality of written narratives. This suggests that writing, specifically text generation (e.g., written language content, not form), can be directly improved through oral language instruction in as young as first grade students. These findings are particularly important because historically instruction focusing on text generation has not been done with young children. In a review of the literature, Spencer and Petersen (2018) examined the focus of previous writing interventions with early elementary students. Out of over seventy studies examined, a far greater emphasis was placed on transcription intervention for young children, with text generation intervention emphasized only with older students. In fact, there has been no writing intervention research that has targeted text generation for children younger than second grade. These findings expose the lack of text generation instruction among young children and underline the need for more research with younger populations including kindergarteners (Spencer & Petersen, 2018).

### **Kindergarten Academic Expectations**

As children progress through school, an increased reliance on academic language is required as they are expected to comprehend and produce oral and written literate language. Given the relationship of early language ability and subsequent literacy skills, a greater emphasis should be put on explicit language instruction in early formal education, including kindergarten (Lee, 2010). Lee cautions that children who begin to lag behind in emergent literacy skills as early as preschool, may fall behind once they begin formal schooling. Subsequently, children

with adequate reading and writing skills are separated from those with poor literacy skills, resulting in a “gap” which has been seen to persist into adulthood (Bruck, 1998; Stanovich, 2009). Recently, a push to emphasize the understanding and use of complex, academic language has been a focus in as early as kindergarten classrooms, as evidenced by the language, reading, and writing Common Core State Standards (National Governors Association Center for Best Practices & Council of Chief State School Officers [CCSS], 2010). The kindergarten expectations set by the CCSS include both written and oral production and comprehension of elements of narrative and expository texts. For example, the CCSS states that kindergarteners should be able to “with prompting and support, retell familiar stories, including key details...and identify characters, settings, and major events in a story” (CCSS.ELA-LITERACY.RL.K.2, CCSS.ELA-LITERACY.RL.K.3) and “with prompting and support, identify the main topic and retell key details of a text” (CCSS.ELA-LITERACY.RI.K.2). Additionally, the CCSS state that kindergarten students should have the language skills necessary to “determine or clarify the meaning of unknown and multiple-meaning words and phrases based on kindergarten reading and content” (CCSS.ELA-LITERACY.L.K.4).

Academic writing is also emphasized through the CCSS. ELA-LITERACY.W.K.2 and CCSS.ELA-LITERACY.W.K.3 which stating that students will, “use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic” and, “...to narrate a single event or several loosely linked events, tell about the events in the order in which they occurred, and provide a reaction to what happened”.

Although these standards have been adopted by the majority of states for several years, 60%-80% of children in the U.S. score below a proficient level on measures of reading

comprehension and writing (National Assessment of Educational Progress, 2016, 2017). Reading scores have consistently been below the level of expectation, with very little improvement (National Assessment of Educational Progress, 1992). For example, in 1992 71% of fourth graders did not meet a proficient level in reading and in 2017 63% did not meet proficiency in reading standards. In 2011, national averages also indicated only 27% of eighth and twelfth grade students performed at or above a proficient writing level and only 80% performed at or above a basic level. The fact that the majority of the population is not meeting grade level expectations is not the result of a decoding or language disorder. In 2016, Norbury et al. found the prevalence of a language disorder, unrelated to intellectual disability or an existing medical diagnosis, to be 7.58%. Tomblin, Smith, and Zhang (1997) reported similar findings in their epidemiological study on language impairment. Therefore, such overwhelmingly poor results in reading comprehension and writing cannot logically be attributed to language disorder.

Furthermore, the majority of students do not have a decoding disability. The prevalence of decoding, or word-level disabilities is approximately 5% to 18% (Costa, Edwards, Hooper, 2016; Shaywitz & Shaywitz, 2005), and the disproportionate difficulty in reading performance among culturally and linguistically diverse students is not decoding-related (Nakamoto, Lindsey, & Manis, 2006). The primary reason students are not meeting grade-level reading expectations lies in a mismatch between students' oral language skills and the oral and written academic language expectations adopted by the school system. The way in which foundational, literate oral language is being taught through current academic instruction is lacking. Current instruction must change for students to develop oral language skills that will help them meet grade level reading and writing expectations.



## **Multi-Tiered System of Language Support**

Often, specialized language intervention is only reserved for students who qualify for special education services. However, the fact that the majority of students do not meet reading and writing grade-level expectations demonstrates that a large population of students are without the help they need. A multi-tiered system of language support (MTSLS) is a theoretical model that provides early intervention, prevention, and disability identification through multi-tiered levels of instruction (Fuchs & Deshler, 2007). An MTSLS implements differentiating levels of evidence-based, preventative instruction to determine a child's emerging difficulties and potential to learn given more intense and specialized teaching. This is done by frequently assessing a child's progress before, during, and after instruction. Although examples among research of multi-tiered intervention approaches include two to four tiers, a three-tiered approach is typically consistent with how MTSLS is implemented in the schools (Fuchs, Mock, Morgan, & Young, 2003).

An MTSLS approach is not a specific procedure, however the general framework includes the following characteristics: at Tier 1 all students receive evidenced based instruction in their general education classrooms where progress is monitored. Students who are not responsive to this instruction over time move into Tier 2, where they are provided further help that is specific to their needs beyond the large group classroom instruction. Progress is monitored and students who continue to be less responsive to treatment are moved to Tier 3 and referred for a special education evaluation with continued progress monitoring and more intensive services (Troia, 2005). More specifically, Tier 1 instruction includes universal screening and differentiated instruction of evidenced-based curriculum delivered by a general education classroom teacher. Tier 2 includes specifically tailored instruction to meet the needs of students

with little improvements among Tier 1. Tier 2 interventions are domain specific with increased intensity compared to Tier 1. This is typically done by delivering more explicit instruction to smaller groups more frequently or for a longer period of time by trained professionals (e.g., general education teachers, reading specialists, speech-language pathologists; Fuchs & Fuchs, 2006). Tier 2 does not replace, but is supplemental to, the universal instruction provided in Tier 1. Tier 3 includes specialized treatment implemented in small groups or individually by special education professionals. The duration, frequency, and explicitness of instruction is significantly more intense than Tier 2 and may require an additional diagnosis to be eligible for special education services. It is designed to target students making minimal progress following Tier 2 placement and may replace portions of classroom instruction (Troia, 2005).

One of the greatest advantages to MTSLs is that it prevents children from needing to score significantly below expectations before qualifying for the services they need. This eliminates the “wait to fail” method that provides more intense treatment only after a child has qualified for special education. An MTSLs offers a proactive solution in providing all children with the necessary level of support to meet academic expectations. However, current limitations in carrying out MTSLs for language include the lack of a manualized tiered curriculum and valid assessments for progress monitoring. Ukrainetz (2006) emphasized the importance of developing manualized language curriculum and assessments that are easy to administer and score, which can be used in all tiers of instruction by specialized professionals and general education teachers. In order for MTSLs to be effective, general education professionals must be able to confidently use valid, evidenced-based curricula for Tier 1 and 2. Furthermore, intervention must be flexible to allow for differentiated instruction, so the needs of all students are addressed. The fact that language-based MTSLs has mostly been neglected thus far may be a result of these limitations.

However, without a change in systematic oral language instruction, improvements in national reading and writing scores will likely not improve.

### **Narrative Intervention**

An MTSLS should have a strong focus on academic, literate language. Narrative discourse, or the ability to create and understand stories, serves many purposes in an academic setting. For example, children rely upon narrative language skills to share and comprehend information about fictional, personal, and historical events (Heilmann, Miller, Nockerts, & Dunaway, 2010). In addition, it bridges the gap between casual language that children are exposed to in the home, and formal language which is required for academic success (Westby, 1985). Telling narratives requires the understanding and organization of story elements (e.g., setting, character, problem, action, resolution). In addition, narratives include formal language that signal temporal and causal relationships among sequences of events. Before a child can successfully tell a coherent and organized story, they must understand and have the ability to manipulate these language concepts and story grammar elements (Hipfner-Boucher et al., 2014). Researchers have found that language skills required for successful narrative generation can be enhanced through intervention targeting narrative discourse, including MTSLS treatment approaches. For example, Brown, Garzarek, and Donegan. (2014) examined the effects of narrative retell intervention with electronic self-monitoring on at-risk kindergarten students. The participants included three kindergarteners who were identified as “high risk” for a language disorder. The children were divided into small groups and participated in narrative intervention targeting basic story grammar elements through oral reading, retelling stories, and listening to themselves retell stories to self-monitor. The results indicated that all three students improved significantly on narrative retell measures over 15, 15-20 minute sessions. Follow-up data were

taken 2 weeks after intervention and all three participants maintained progress on measures of narrative retell. Data also indicated that participants' language complexity benefitted as a result of targeting narrative macrostructure. This study supports the idea that early narrative intervention including a self-monitoring feature component can increase oral narrative skills of young, at-risk children. Furthermore, Spencer, Petersen, and Adams, (2015) studied the implementation of tier-2 narrative language instruction in diverse preschoolers. The students were divided into small groups and participated in differentiated, Tier 2 instruction focusing on oral narratives for a total of 30-40 minutes each week, for nine weeks. Student progress was measured weekly with results indicating that the treatment group made significant gains in narrative retells compared to the control group. This demonstrates the effectiveness of implementing tier-2 instruction with young students and the causal relationship between targeting oral language and improved narrative retell skills. Spencer, Weddle, Petersen, and Adams, (2018) also studied the effects of large group narrative intervention focused on retelling narratives. Participants included four Head Start classes made up of 71 preschool students. Large group (i.e., up to 20 children) instruction was provided for a total of 12 sessions which lasted 15-20 minutes. Data (i.e., personal story generation, retell, question answering) were collected immediately before and after intervention in addition to 4-weeks post intervention. As a result, preschoolers who participated in the treatment group scored significantly higher on measures of story retell and answering questions post intervention and at the 4-week follow-up compared to the control group.

While more research in the area is needed, previous studies have found narrative interventions across multiple tiers to not only be feasible, but effective in improving the narrative language skills of young students. However, the majority of studies have limited outcome

measures to narrative retelling or story generation and have included very few participants. More research on the effects of narrative-based MTSLs on distal outcomes such as expository language is needed. It has been hypothesized that oral narrative intervention could improve expository language if the narrative language the students are exposed to and produce in intervention is reflective of the complex language found in expository language (Petersen & Petersen, 2016). In addition to effects on proximal outcomes, such as story retelling and story generation, further research indicating the impact of oral narrative intervention on other distal outcomes such as writing is also needed. Therefore, the current study addressed the following questions:

1. Will the proximal outcomes of narrative retells and personal story generations and distal outcomes of narrative writing and oral expository retells of kindergarten students who are randomly assigned to a multi-tiered narrative intervention condition be significantly different from kindergarten students randomly assigned to a no-treatment control condition?
2. To what extent will at-risk students receiving Tier 2 intervention have higher scores that are statistically significant across all oral and written language outcomes when compared to a matched sample of at-risk students in the control group?
3. To what extent will at-risk students receiving Tier 2 intervention have higher scores that are statistically significant across all oral and written language outcomes when compared to a matched sample of average performing students who had pretest language scores between the 50th percentile and 75th percentile?
4. To what extent will at-risk students receiving Tier 2 intervention have higher scores that are statistically significant across all oral and written language outcomes when compared

to a matched sample of advanced students who had pretest language scores at or above the 75th percentile?

## Method

### Participants

As the current study involved human participants, approval was obtained from the Institutional Review Board in the collection of all of the data used. A total of 686 kindergarten students participated in this study. Twenty-eight kindergarten classrooms from four school districts in the same geographic region (upper Midwest) were randomly assigned to a treatment or control condition resulting in 14 treatment classrooms and 14 control classrooms. The treatment group had 337 kindergarteners, and the control group had 349 kindergarteners. To help describe participants, demographic information on the participants that was available from the school districts was obtained. Child characteristics including ethnicity, dominant language, socioeconomic status (SES), and presence of a disability are displayed in Table 1.

Independent samples *t*-tests indicated that there were no significant differences between groups across gender,  $p = .83$ ,  $t = .210$ ,  $F(684) = .169$ , special education  $p = .33$ ,  $t = .968$ ,  $F(684) = 3.248$ , or free/reduced lunch  $p = .12$ ,  $t = 1.547$ ,  $F(684) = 9.468$ . There was a significant difference between groups for ethnicity  $p = .04$ ,  $t = .2035$ ,  $F(684) = 12.112$ , where there were significantly more Caucasian students in the control group than in the treatment group.

Table 1

*Descriptive Information for Treatment and Control Group Participants*

	Treatment Group	Control Group
<b>Gender</b>		
Female	163 (48.4%)	166 (47.6%)
Male	174 (51.6%)	183 (52.4%)
<b>Ethnicity</b>		
White	275 (81.6%)	310 (88.8%)*
Hispanic	16 (4.7%)	12 (3.4%)
African American	24 (7.1%)	13 (3.7%)
Asian	4 (1.2%)	2 (0.6%)
Native American / Pacific Islander/Hawaiian	12 (3.6%)	8 (2.3%)
Other	6 (1.8%)	4 (1.1%)
SES (Free/Reduced Lunch)	224 (66.5%)	251 (71.9%)
Language Impairment	37 (10.9%)	31 (8.9%)

*Note.* Language impairment was determined based on an active Individualized Education Program for language. \*significant difference  $p < .05$ .

**Measures**

All students participating in the study were administered oral language screening using the *Narrative Language Measures* subtest of the CUBED (Petersen & Spencer, 2012) which assessed narrative retelling and personal story generation, an experimental expository language measure, and a narrative writing sample. These narrative and expository oral and written language assessments took place in winter as pretests (December) and in spring as posttests

(May). Speech-language pathologists were assigned to each elementary school and selected paraprofessionals administered all of the assessments.

**Narrative retells.** Three parallel forms of the *NLM* were administered at pretest and two forms were administered at posttest. The *NLM* is comprised of four sections that provide information on personal-themed narrative retells, personal story generations, story grammar comprehension, and inferential vocabulary comprehension. Only the narrative retell and personal story generation subtests from the *NLM* were analyzed for this study. The *NLM* is a standardized, criterion-referenced general outcome measure with 25 parallel forms for each grade (pre-k to 3rd grade) used to assess children's narrative language growth. It involves standardized administration and scoring procedures. The narrative retell subtest measures the comprehension and production of story grammar and limited aspects of complex language within personal-themed narratives. Psychometric analyses indicate that the *NLM* has good to excellent reliability and validity (Petersen & Spencer, 2012).

To administer the *NLM*, research assistants read a model story, asked the child to retell it, and then listened to the child's story while providing only neutral prompts. Pictures were not used in the elicitation of the narrative retells. The *NLM* includes a scoring rubric designed to score student retells from each parallel story in real time. Stories were scored for the clarity and completeness of story grammar elements (character, setting, problem, feeling, action, consequence, and ending) on a 0-2 scale with weighted points for episodic elements (e.g., problem, action, consequence). Language complexity features such as the use of causal subordinating conjunctions (*because*) and temporal subordinating conjunctions (*after, when*) were scored for their frequency. Total *NLM* retell scores were calculated by summing the story



grammar, language complexity, and episodic points. The time required for individual administration of the three stories was approximately 3-5 minutes.

**Personal story generations.** Personal stories were elicited by asking the student if anything similar to the story they just retold had ever happened to them. These personal stories were audio recorded and then scored using the Story Grammar and Language Complexity sections of the *NLM* Flow Chart. Personal stories were analyzed for story grammar and language complexity, with each story grammar element or aspect of language complexity awarded 0-4 points depending upon complexity and clarity. A total of 55 points were possible on the *NLM* Flow Chart.

**Expository language.** Expository language, although not the explicit focus of the language intervention provided in this study, was measured as a distal outcome using an experimental expository measure. The expository measure is a criterion-referenced assessment of informational text comprehension and production. The expository measure uses a similar format of the *NLM* retell measures, where an examiner asks a child to listen to some information, and then retell that information. Scoring was done in real-time while the child was retelling main ideas and supporting details of the text. Two parallel forms of the expository measure were designed for use in this study; one used at pretest in the winter, and one used in posttest in the spring. The information in each expository measure was designed to be particularly obscure information that students would likely have not been exposed to previously.

**Narrative writing.** Students were asked to write one narrative story at pretest and one narrative story at posttest. The narrative writing prompt at pretest asked students to write a story about a time when they got hurt, and the posttest writing prompt asked students to write a story about a time when they lost something. A space was provided at the top of the page for students

to illustrate their story. The same Story Grammar and Language Complexity sections of the *NLM* Flow Chart used to analyze the personal story generations were also used to score the narrative writing. Teachers' notes on the students' writing samples were used to help with interpretation of the writing.

### **Intervention Procedures**

**Large group (Tier-1) narrative intervention procedures.** The students in the treatment group received language intervention within a multi-tiered system of language support (MTSLS) framework. A speech-language pathologist (SLP) assigned to each school led the MTSLS team. Starting in the middle of January, the students received whole classroom narrative language instruction twice a week for 15-20 minutes. The classroom teachers followed the *Story Champs* large group procedures (Spencer & Petersen, 2012; Spencer, Petersen, Slocum, & Allen, 2014). to provide instruction. During the first week of instruction, the SLPs modeled the large group *Story Champs* instruction, and then, using a fidelity checklist, observed and coached the classroom teachers while they conducted the second large group *Story Champs* session. This whole classroom instruction conducted by the classroom teachers was considered tier-1 instruction in the MTSLS system, and continued for 14 weeks, yielding a total of 28 sessions. The SLPs observed and provided feedback regarding the teachers' fidelity of implementation an additional three times during the study.

Each whole-class session followed similar steps as described in Spencer et al. (2014) and can be viewed at <http://www.youtube.com/watch?v=0M-IKtJVg7s>. With pictures displayed so the whole class could see, the teacher modeled a story while pointing to corresponding pictures and attaching brightly colored story grammar icons to the pictures. The teachers had the children name each of the parts of the story (e.g., "character, problem, feeling, action, ending") and then

retold the story while children produced gestures representing each part of the story. Next, the teacher called for individual turns, in which children answered questions about parts of the story (e.g., “Who was this story about?” and “What did he do to fix his problem?”). Once a child answered the question, the whole class repeated the answer using group responding. Finally, children were paired up to tell the story in its entirety to a peer (i.e., peer tutoring). Partners helped monitor, and when one partner finished telling the story, the roles switched. Children practiced retelling multiple stories that increased in complexity over time.

**Control group.** The students in the control group participated in classroom activities that were in place at the outset of the school year (business as usual). This control condition was set in place to account for multiple threats to internal validity and to provide information on narrative retell, personal story generation, expository retell, and writing growth over time under the currently implemented curriculum. Kindergarten reading standards for the state of Michigan indicate that students will learn to “ask and answer questions about key details in a text, retell familiar stories and key details, and identify characters, settings, and major events in a story” (Michigan Department of Education, n.d.). The school districts followed ten essential instructional practices in early literacy: Deliberate, research-informed efforts to foster literacy motivation and engagement within and across lessons, read alouds of age-appropriate books and other materials, print or digital, small group and individual instruction, using a variety of grouping strategies, most often with flexible groups formed and instruction targeted to children’s observed and assessed needs in specific aspects of literacy development, activities that build phonological awareness, explicit instruction in letter-sound relationships, research- and standards-aligned writing instruction, intentional and ambitious efforts to build vocabulary and content knowledge, abundant reading material and reading opportunities in the classroom,

ongoing observation and assessment of children's language and literacy development that informs their education, collaboration with families in promoting literacy (General Education Leadership Network, n.d.).

**Small group (Tier-2) procedures.** The students in the treatment group who received an *NLM* retell score of 10 or higher and who were able to produce a complete episode (initiating event, attempt, and consequence) on at least one of the pretest narrative retells in December were not assessed again until the end of the school year at posttest in May ( $n = 194$ ; 58%). An *NLM* score of 10 was established because it meets winter benchmark expectations as indicated by the CUBED Examiner's Manual (Petersen & Spencer, 2012). However, the students assigned to the treatment group who did not meet this narrative retell criterion at pretest or who already had an Individualized Education Program (IEP) for language ( $n = 143$ ; 42%) were administered two additional narrative retell assessments after one month of whole class instruction (mid-February). These additional assessments were administered to determine whether the tier-1 whole-class instruction was sufficiently intense to improve these lower performing students' language. The SLPs worked with groups of three to four students who had the lowest scores from each classroom and that still did not meet the criterion established (*NLM* retell score of 10 and a complete episode) after one month of large group instruction. These students were assigned to receive additional, Tier 2 small group narrative intervention in addition to the Tier 1 large group intervention throughout the remainder of the school year. If more than two groups of students per classroom (e.g., eight students) qualified for Tier 2 instruction in a classroom, then out of those students, Tier 2 intervention was randomly assigned. Forty-one (12%) of the students in the treatment group received small group, Tier 2 intervention. Two students from different schools who received a score of 10 and a score of 11 on the pretest and did not have IEPs were included

in the tier-2 group so that there would be sufficient small group size. The SLPs used the *Story Champs* small group procedures with these students two times per week for approximately 20 minutes per session. The general classroom teachers continued to do large group narrative instruction in the classroom two times per week at a different time from when the students in the small groups received *Story Champs* small group procedures. Thus, students receiving the small group Tier 2 narrative intervention participated in a total of two 15-20 minute large group narrative intervention sessions, and two 20-minute small group narrative intervention sessions each week for 14 weeks, equaling approximately 110 minutes of explicit narrative language instruction each week. The 41 students receiving small group narrative intervention were administered one *NLM* narrative retell progress monitoring assessment weekly outside of the Tier 1 and Tier 2 intervention sessions for the remainder of the school year. These progress monitoring assessments were used to inform intervention so that the SLPs could specifically tailor the Tier 2 intervention to each student's individual language needs.

The tier-2 intervention adhered to the small group procedures of *Story Champs* (Spencer & Petersen, 2012). Procedures similar to those displayed at <https://www.youtube.com/watch?v=oeQhZbL9vHY&t=302s> were used in the small group, Tier 2 intervention. The program includes multiple personal themed stories with accompanying pictures. Pictures were large enough to spread across a small table and allow for all children in the small group to see them. Additional visual materials included brightly colored story grammar icons representing the major parts of the story. Story games were used to increase children's active engagement while they listened to their peer tell a story individually. Materials for story games included small wooden sticks with the icons on them, small cubes with the icons on them,

and bingo cards with the icons on them. Story gestures were also used in a game format, but materials are not required to play.

**Interventionists and fidelity of intervention.** All participating classroom teachers and SLPs were aware of the purpose of the study and acted as the interventionists. Before serving as interventionists, the SLPs participated in a 4-hour training on the implementation of multi-tiered systems of language support using the *Story Champs* procedures. The SLPs then trained the classroom teachers on how to implement the large group procedures. Both the SLPs and classroom teachers reviewed the *Story Champs* manual, practiced with nonparticipant children, and received coaching and feedback from the researchers. Throughout the intervention phase, the SLPs observed the classroom teachers at least five times. The SLPs completed a fidelity checklist each time they observed the teachers doing the Tier 1 instruction and used the results to give feedback to the teachers following the session. The SLPs monitored their own fidelity of implementation of the small group *Story Champs* procedures during each small group session using the fidelity checklist. The average fidelity of intervention implementation was 97.8% with a range of 91% to 100%.

**Test administration fidelity and scoring reliability.** Prior to the study, the participating SLPs in the school districts were trained in the administration and scoring of all the pretests and posttests. A 3-hour long training on the *NLM* was conducted. These SLPs administered all of the pretests and posttests and scored the narrative retells and expository retells in real time. Twenty percent of the *NLM* retells and expository retells from all assessment times (pretest and posttest) were randomly selected to be scored by independent scorers. A large research team comprised of undergraduate and graduate students in speech-language pathology independently listened to and scored the retells in real time. The following formula was used to calculate percent agreement:

Number of agreements divided by agreements plus disagreements, multiplied by 100. The mean agreement was 96.4% (range 64%-100%) for the *NLM* retell and expository retell with inter-raters being blinded to groups. This same large research team was trained to score the personal stories and writing samples. After having read the CUBED manual, the first author trained each research assistant on how to use the *NLM* Flow Chart to score personal story generations and writing samples. Before qualifying to work on the study, the research assistants demonstrated accurate scoring of all the tests and 90% or higher scoring agreement with the first author of the CUBED assessment. Thirty percent of the participants' personal narratives and writing samples from all assessment times (pretest and posttest) were randomly selected to be scored by an independent scorer. The research assistants listened to the participants' audio recordings of the personal stories that were initially scored by a different research assistant. The following formula was used to calculate percent agreement: Number of agreements divided by agreements plus disagreements, multiplied by 100. The mean agreement was 96.4% (range 64%-100%) for the personal stories and 84.9% (79%-100%) for the writing.

From pretest and posttest data, 30% of all of the retell narratives, personal narratives, and expository retells were randomly selected for a fidelity of test administration examination. An independent research assistant listened to each of the audio recordings and completed a multi-step administration checklist for each test. For each one, the percent of steps completed correctly was calculated. The overall mean fidelity of test administration was 96.5% (range 88%-100%) for the *NLM* retells and personal stories and 94.8% (range 76%-100%) for the expository measure.

## Results

### Data Analysis

Multiple imputation with linear regression was used to conduct an intention to treat (ITT) analysis. There were a total of 12.12% missing data from the entire data set, with pretest and posttest personal story generations having 37.2% and 28.7% missing data, respectively, and pretest writing narrative and posttest writing narrative having 17.5% and 11.1% missing data, respectively. All other dependent variables had 1.0% or less missing data. The data were missing at random without a monotone pattern. We used five imputation iterations and then took the pooled (mean) result of those iterations. Because the standard deviations were not reported in the pooled results, we used the standard deviations from the fifth iteration. The original means (standard deviations) for posttest expository retells was 4.0 (3.88) for the treatment group and 3.03 (3.30) for the control group and the pooled means and standard deviations were 4.0 and 3.03, respectively. The original means (standard deviations) for posttest personal story generations was 17.98 (9.00) for the treatment group and 15.83 (8.80) for the control group and the pooled means and standard deviations were 17.80 and 15.76, respectively. The original means (standard deviations) for posttest narrative writing was 10.22 (8.87) for the treatment group and 5.96 (4.70) for the control group and the pooled means and standard deviations were 9.98 and 6.20, respectively. The original means (standard deviations) for posttest narrative retell was 14.08 (5.98) for the treatment group and 10.11 (6.32) for the control group and the pooled means and standard deviations were 14.02 and 10.11, respectively.

The second research question was to examine whether students who were at-risk at pretest according to *NLM* performance (or had an IEP for language) and still at-risk at the end of the first month of large group language intervention (Tier 2 students) made significant gains over



students in the control group who were also at-risk at pretest on the *NLM* Listening. The 41 students who received Tier 2 intervention were matched with 41 students from the control group on language impairment/special education services, pretest *NLM* listening scores, socio-economic status (free/reduced lunch), school, gender, and school district, in that order to the fullest extent possible. Students were mandatorily matched on the first three parameters, and the majority were also matched on the remaining three parameters.

We also matched the at-risk Tier 2 students to 41 students who were not at-risk at pretest and who had *NLM* scores at or above the 50th percentile (local norms, a *NLM* score of 13) and lower than the 75th percentile (a score of 17). These students were matched for school, socio-economic status, gender, and school district to the extent possible. This matching allowed for the examination of the third research question, which was to determine whether at-risk students who received Tier 2 services were able to make sufficient gains so that their performance on the outcome measures was not significantly different from average performing students (not at-risk).

The fourth research question examined whether the students at-risk, who received Tier 2 services were able to make sufficient gains so that their performance at the end of the school year was not significantly different from a matching sample of high achieving typically developing peers who scored at or above the 75th percentile on the pretest *NLM* Listening (a score of 17 or higher).

We initially planned to conduct an ANCOVA, using pretest measures as the respective covariates for each of the outcome measures. Assumptions that underlie the use of ANCOVA were examined. Visual and statistical inspection of the distribution of two of the dependent measures, narrative retell and personal story, indicated that the data were approximately normally distributed, with kurtosis and skewness  $< +/- 1$  and that there were no outlying data.

Oral expository for the treatment and control groups was not normally distributed with a positive skew indicating floor effects skewness and kurtosis  $> +/- 1$ . Narrative writing for the control group was also not normally distributed with a positive skew indicating floor effects skewness and kurtosis  $> +/- 1$  with outliers. Fortunately, an ANCOVA is not particularly sensitive to moderate deviations from normality (Glass, Peckham, & Sanders, 1972). Therefore, the data were not transformed. The ANCOVA results with outlying data can reflect a small number of atypical cases instead of the general data trend. Only nine high outlying data points ( $> +3.0 SD$  above the mean) were noted in the data set, and these outliers were Winsorized (Wilcox, 2005) to the next lowest data point  $+1$ . A linear relationship between the covariate and the dependent variable for each level of the independent variable (treatment and control groups) was also examined. This was tested through visual inspection of scatterplots, which indicated that there was a general linear relationship for all dependent variables. Preliminary analyses examining the homogeneity-of-slopes indicated that there was a significant difference for oral narrative retell ( $F(2, 674) = 112.63, p < .001$ ), personal story generation ( $F(2, 373) = 10.83, p < .001$ ), expository retell ( $F(2, 678) = 89.99, p < .001$ ), and narrative writing ( $F(2, 539) = 95.45, p < .001$ ). These results indicate that the pretest covariates and dependent variables differed significantly by group. Finally, we examined the assumption of homogeneity of variance across the dependent variables. The results of the Levene's test of equality of error variances were not significant for narrative retell and personal story generation, but significant for expository retell ( $p = .02$ ) and narrative writing ( $p = <.001$ ). Because at least one of these assumptions was violated across all four dependent variables, the ANCOVA was abandoned and a simple main effects test was conducted ( $t$ -test).

Estimates of the effect size of the differences between the treatment and control groups were computed for each dependent measure using Cohen's *d* effect sizes (Lachenbruch & Cohen, 1989). Effect sizes of .8 or larger was considered to be large, a value of .5 was considered to be moderate, and a value of .2 was considered to be small.

### **Question 1: All Treatment Group Students Compared to All Control Group Students**

Pretest and posttest means and standard deviations across all outcomes for all participants are reported in Tables 2 and 3.

**Oral narrative retell.** There was no significant difference in narrative retell performance at pretest ( $p=.50$ ) across groups. For the oral narrative retell, the independent samples *t*-test, with equal variances not assumed, was significant:  $t(675) = 8.35, p < .001$ . The treatment group mean was 14.04 with a standard deviation of 6.00. The control group mean was 10.11 with a standard deviation of 6.32. Cohen's *d* effect size was moderate at .64.

**Personal story generation.** There was no significant difference in personal story generation performance at pretest ( $p = .64$ ). For the personal story generation outcome, the independent samples *t*-test, with equal variances not assumed, was significant:  $t(477) = 2.65, p < .01$ . The treatment group mean was 17.65 with a standard deviation of 8.70. The control group mean was 15.86 with a standard deviation of 8.54. Cohen's *d* effect size was small at .21.

**Expository retell.** There was no significant difference in expository retell performance at pretest ( $p = .13$ ). For the expository outcome, the independent samples *t*-test, with equal variances not assumed, was significant:  $t(653) = 3.53, p < .001$ . The treatment group mean was 4.00 with a standard deviation of 3.88. The control group mean was 3.02 with a standard deviation of 3.30. Cohen's *d* effect size was small at .27.

Table 2

*Pretest Means, Standard Deviations, and T-Test Results Across All Participants and Conditions*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	SD	Mean	SD	<i>p</i>	<i>d</i>
Narrative Retell	10.90	6.48	10.57	6.58	.50	.1
Personal Story Generation	16.45	8.32	16.85	9.12	.64	.04
Expository	4.43	4.11	3.99	3.56	.13	.11
Narrative Writing	4.08	4.35	3.11	3.24	<.01	.25

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.

Table 3

*Posttest Means, Standard Deviations, and T-Test Results Across All Participants and Conditions*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>p</i>	<i>d</i>
Narrative Retell	14.04	6.00	10.11	6.32	<.001	.64
Personal Story Generation	17.65	8.70	15.86	8.54	<.05	.21
Expository	4.00	3.88	3.02	3.30	<.001	.27
Narrative Writing	10.03	8.76	6.27	5.20	n/a	n/a
Narrative Writing Gain	5.94	7.79	3.15	5.22	<.001	.42

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.

**Narrative writing.** At pretest the treatment group scored significantly higher on writing than the control group,  $t(2, 410.78) = -3.11, p < .01$ . Because of this significantly higher performance at pretest, a comparison of the gains from pretest to posttest between groups was conducted. For narrative writing gain, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(2, 190.00) = 5.10, p < .001$ . The treatment group mean gain was 5.94 with a standard deviation of 7.79. The control group mean gain was 3.15 with a standard deviation of 5.22. Cohen's  $d$  effect size for writing gain was moderately small at .42.

### **Question 2: Tier 2 Group Compared to Matching At-Risk Control Students**

Pretest and posttest means and standard deviations across all outcomes for Tier 2 participants and the matching at-risk control students are reported in Tables 4 and 5.

**Oral narrative retell.** There was no significant difference in narrative retell performance at pretest ( $p = .42$ ). For the oral narrative retell, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = -3.93, p < .001$ . The treatment group mean was 13.10 with a standard deviation of 6.09. The control group mean was 7.93 with a standard deviation of 5.81. Cohen's  $d$  effect size was large at .87.

**Personal story generation.** There was no significant difference in personal story generation performance at pretest ( $p = .96$ ). For the personal story generation, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = -2.90, p < .01$ . The treatment group mean was 18.50 with a standard deviation of 10.52. The control group mean was 11.37 with a standard deviation of 8.06. Cohen's  $d$  effect size was moderate at .76.

**Expository retell.** At pretest the control group scored significantly higher on expository retell than the treatment group,  $t(62.79) = -3.37, p < .01$ . For the expository outcome, the

Table 4

*Pretest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching At-Risk Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>p</i>	<i>d</i>
Narrative Retell	4.46	4.01	5.15	3.69	.42	.18
Personal Story Generation	13.68	7.83	13.58	10.16	.96	.01
Expository	1.32	1.77	3.23	3.16	<.01	.75
Narrative Writing	3.75	3.54	2.52	3.49	.32	.45

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.

Table 5

*Posttest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching At-Risk Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>p</i>	<i>d</i>
Narrative Retell	13.10	6.09	7.93	5.81	<.001	.87
Personal Story Generation	18.50	10.52	11.37	8.06	<.01	.76
Expository	2.61	2.57	2.65	2.46	.94	.02
Narrative Writing	10.66	8.51	4.37	3.51	<.001	.97

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.

independent samples *t*-test, with equal variances not assumed, was not significant:  $t(80) = 0.03$ ,  $p = .97$ . The treatment group mean was 2.61 with a standard deviation of 2.57. The control group mean was 2.65 with a standard deviation of 2.46. Cohen's *d* effect size was small at .02.

**Narrative writing.** There was no significant difference in narrative writing performance at pretest ( $p = .32$ ). For the narrative writing outcome, the independent samples *t*-test, with equal variances not assumed, was significant:  $t(80) = -3.70$ ,  $p < .001$ . The treatment group mean was 10.66 with a standard deviation of 8.51. The control group mean was 4.37 with a standard deviation of 3.51. Cohen's *d* effect size was large at .97.

### **Question 3: Tier 2 Group Compared to Matching Average Control Group Students**

Pretest and posttest means and standard deviations across all outcomes for Tier 2 participants and the matching average control students are reported in Tables 6 and 7.

**Oral narrative retell.** At pretest the control group scored significantly higher on oral narrative retell than the treatment group,  $t(410.78) = -3.11$ ,  $p < .01$ . For the oral narrative retell, the independent samples *t*-test, with equal variances not assumed, was not significant:  $t(80) = -1.18$ ,  $p = .24$ . The treatment group mean was 13.10 with a standard deviation of 6.09. The control group mean was 11.00 with a standard deviation of 5.94. Cohen's *d* effect size was small at .35.

**Personal story generation.** At pretest the control group scored significantly higher on personal story generation than the treatment group,  $t(73.53) = -2.97$ ,  $p < .01$ . For the personal story generation, the independent samples *t*-test, with equal variances not assumed, was not significant:  $t(80) = -1.55$ ,  $p = .12$ . The treatment group mean was 18.50 with a standard deviation of 10.52. The control group mean was 16.59 with a standard deviation of 8.75. Cohen's *d* effect size was small at .20.

Table 6

*Pretest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching Average Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>p</i>	<i>d</i>
Narrative Retell	13.10	6.09	11.00	5.94	.12	.35
Personal Story Generation	18.50	10.52	16.59	8.75	.41	.20
Expository	2.61	2.57	3.90	3.55	.06	.42
Narrative Writing	10.66	8.51	5.37	4.62	<.001	.77

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.

Table 7

*Posttest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching Average Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	<i>SD</i>	Mean	<i>SD</i>	<i>p</i>	<i>d</i>
Narrative Retell	4.46	4.01	14.10	2.52	<.001	2.88
Personal Story Generation	13.68	7.83	18.16	9.59	<.01	.51
Expository	1.32	1.77	3.95	3.51	<.001	.95
Narrative Writing	3.75	4.54	2.67	2.86	.24	.28

*Note.* *NLM* = CUBED Narrative Language Measures. *SD* = standard deviation. Equal variances not assumed.



**Expository retell.** At pretest the control group scored significantly higher on expository retell than the treatment group,  $t(59.08) = -4.30, p < .001$ . For expository language, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = 2.12, p < .05$ . The treatment group mean was 2.61 with a standard deviation of 2.57. The control group mean was 3.90 with a standard deviation of 3.55. Cohen's  $d$  effect size was small at .42.

**Narrative writing.** There was no significant difference in narrative writing performance at pretest ( $p = .24$ ). For the writing outcome, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = -3.26, p < .01$ . The treatment group mean was 10.66 with a standard deviation of 8.51. The control group mean was 5.37 with a standard deviation of 4.62. Cohen's  $d$  effect size was moderate at .77.

#### **Question 4: Tier 2 Group Compared to Matching Advanced Control Group Students**

Pretest and posttest means and standard deviations across all outcomes for Tier 2 participants and the matching advanced control students are reported in Tables 8 and 9.

**Oral narrative retell.** At pretest the control group scored significantly higher on oral narrative retell than the treatment group,  $t(57.92) = -21.03, p < .001$ . For the oral narrative retell, the independent samples  $t$ -test, with equal variances not assumed, was not significant:  $t(80) = 0.90, p = .37$ . The treatment group mean was 13.10 with a standard deviation of 6.09. The control group mean was 14.34 with a standard deviation of 6.42. Cohen's  $d$  effect size was small at .20.

Table 8

*Pretest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching Advanced Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	SD	Mean	SD	<i>p</i>	<i>d</i>
Narrative Retell	4.46	4.01	19.12	1.95	<.001	4.65
Personal Story Generation	13.68	7.83	17.00	10.79	<.05	.35
Expository	1.32	1.77	5.51	3.67	<.001	1.46
Narrative Writing	3.75	4.54	3.62	3.35	.96	.03

Note. NLM = CUBED Narrative Language Measures. SD = standard deviation. Equal variances not assumed.

Table 9

*Posttest Means, Standard Deviations, and T-Test Results for Tier 2 Treatment Group and Matching Advanced Control Group Across Outcomes*

	Groups					
	Treatment		Control		<i>t</i> -test	
	Mean	SD	Mean	SD	<i>p</i>	<i>d</i>
Narrative Retell	13.10	6.09	14.34	6.42	.37	.20
Personal Story Generation	18.50	10.52	16.97	9.40	.52	.15
Expository	2.61	2.57	5.41	4.40	<.01	.78
Narrative Writing	10.66	8.51	7.15	5.17	<.05	.50

Note. NLM = CUBED Narrative Language Measures. SD = standard deviation. Equal variances not assumed.

**Personal story generation.** At pretest the control group scored significantly higher on personal story generation than the treatment group,  $t(68.70) = -2.16, p < .05$ . For the personal story generation outcome, the independent samples  $t$ -test, with equal variances not assumed, was not significant:  $t(80) = -0.77, p = .45$ . The treatment group mean was 18.50 with a standard deviation of 10.52. The control group mean was 16.97 with a standard deviation of 9.40. Cohen's  $d$  effect size was small at .15.

**Expository retell.** At pretest the control group scored significantly higher on expository retell than the treatment group,  $t(57.61) = -6.61, p < .001$ . For the expository language outcome, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = 3.53, p < .001$ . The treatment group mean was 2.61 with a standard deviation of 2.57. The control group mean was 5.41 with a standard deviation of 4.40. Cohen's  $d$  effect size was moderate at .78.

**Narrative writing.** There was no significant difference in narrative writing performance at pretest ( $p = .96$ ). For the narrative writing outcome, the independent samples  $t$ -test, with equal variances not assumed, was significant:  $t(80) = -2.36, p < .02$ . The treatment group mean was 10.66 with a standard deviation of 8.51. The control group mean was 7.15 with a standard deviation of 5.17. Cohen's  $d$  effect size was moderate at .50.

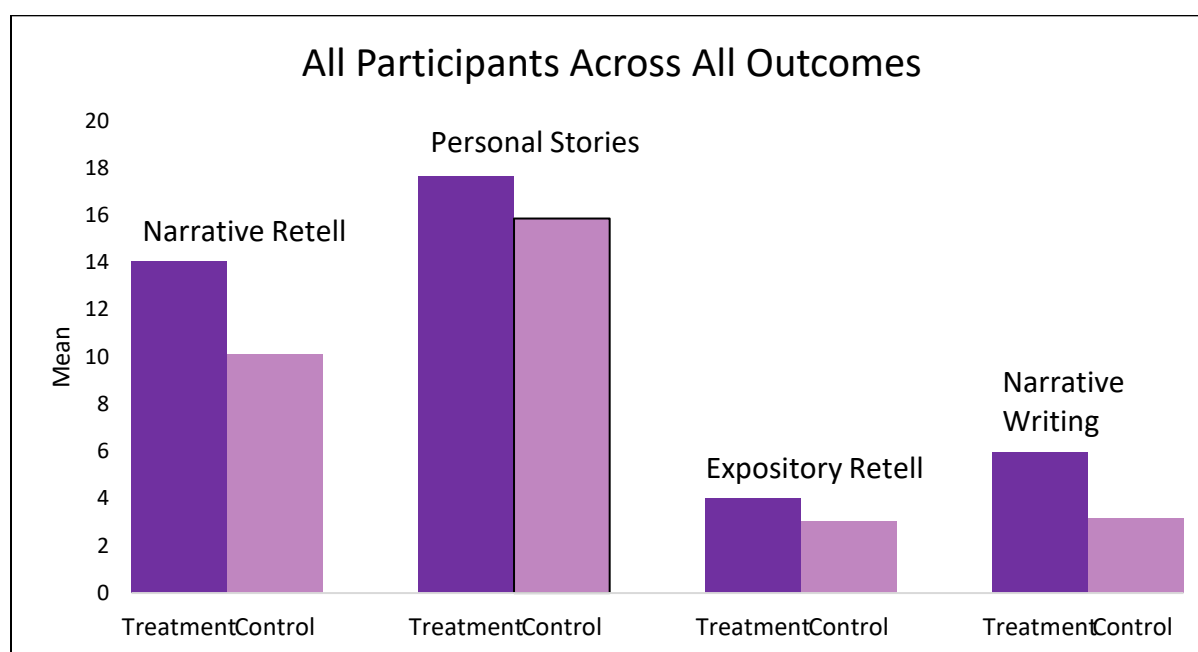
## Discussion

The purpose of the current study was to determine the effects of a multi-tiered narrative intervention on oral narrative retell, personal story generation, narrative writing, and expository retell with kindergarten students compared to a control group. The performance of Tier 2 students across all measures was also compared to three groups of matched control students who scored below average, average, and advanced at pretest across all measures.

### Question 1: Comparing Treatment Outcomes to Control Outcomes for All Participants

When comparing the outcome measures of all students in the treatment group to all students in the control group, the treatment group performed significantly better, with higher group mean average scores, across all outcome measures as seen in Figure 1. These findings indicate that although the instruction emphasis in the treatment condition was on oral narrative intervention, this oral language intervention was successful in improving oral narrative retells, personal story generations, narrative writing, and expository retell skills.

**Narrative retell.** Children assigned to the treatment group evidenced improvement in narrative retells by using more story grammar elements including complete episodes (initiating



*Figure 1.* Posttest means of treatment compared to control groups across all measures. event, attempt, and consequence) and/or increasing language complexity as measured by the NLM.

The results of the current study support previous research that demonstrates the causal relationship between implementing a multi-tiered oral language intervention and improved narrative retell skills (Spencer et al., 2018). The improvement of narrative retelling is important

because of the role that narratives play in bridging the gap between informal language children are exposed to at home and formal language required for academic success (Westby, 1985).

This intervention provided kindergarteners with exposure to and experience using literate language, which skills provide a foundation to support later reading and writing development (Nippold, 2004). For example, children with inadequate oral language skills will also have difficulty with reading comprehending, a skill necessary for academic success once the switch is made in early elementary grades from learning to read to reading to learn (Chaney, 1998; Larney, 2002; Lee, 2010; Paul et al., 2018). Previous research, although limited, has found oral narrative language to be the most effective method at improving reading comprehension when compared to text-comprehension training and a combined text-comprehension and oral language training (Clarke et al., 2010). Therefore, the success of this oral language-based intervention implies that future reading comprehension skills may also be positively impacted. Additionally, Dickinson and Tabors (2001) found that reading comprehension in seventh grade was strongly correlated with early receptive language skills. The current findings indicate that young children can improve their use of academic language as demonstrated through narrative retelling. This is an important first step in evidencing that children's oral academic language can be significantly impacted, which would presumably indicate that their current and future academic performance, including reading comprehension, will likewise improve well beyond the early years of school.

**Personal story generation.** Children who received language intervention also scored significantly better than their peers in the control group on personal story generation. The results of this study indicate that even though the focus of intervention was primarily on narrative retelling, students' personal story generations also improved, indicating a degree of generalization. This is relevant because children rely upon the acquisition of literate language to

proficiently share and comprehend narratives including personal events (Heilmann et al., 2010). The ability to generate a personal narrative requires the understanding and use of organizational story grammar skills and complex language which is especially difficult for children with language difficulties (Petersen et al., 2014). These requirements are seen in early school curricula and the CCSS, however, language skills are rarely if ever targeted explicitly for kindergarten students (Spencer & Petersen, 2018). In addition to meeting academic demands, adequate personal story generation skills are necessary for the social and behavioral development of children (Hart, Fujiki, Brinton, & Hart, 2004). Not only is there a need to improve the personal story generation skills of young students, the current study demonstrates the potential to do so successfully, on a large scale, and with a young population.

**Expository retell.** This study indicated that the pretest scores between the treatment and control groups were not statistically significantly different. Even though the expository scores dropped from pretest to posttest across groups, presumably due to greater difficulty of the posttest expository passage, there was a significant difference between the expository retells of students who received treatment compared to their peers who did not, with the treatment group scoring higher than their control group peers. This implies that the intervention used in the current study, which focused on improving oral language through exposure to and practice retelling and generating oral narratives, resulted in a generalized improvement of retell skills beyond narratives to expository texts without explicitly being targeted.

Proficiency with expository language becomes increasingly important as children progress in school and a higher demand is put on extracting meaning from expository texts. The CCSS requires kindergarteners to be able to understand and talk about expository texts as well (National Governors Association Center for Best Practices & Council of Chief State School

Officers, 2010). For example, children are required to identify the main point and supporting details of a text. Research indicates that students who struggle with oral language at a young age will continue to struggle with not only later narrative outcomes but also the retelling and writing of expository texts as they get older (Griffin et al., 2004). While the focus of the intervention was on oral narrative language, it was hypothesized that expository language would also improve (Petersen & Petersen, 2016). This study provides evidence to support this hypothesis.

**Narrative writing.** Lastly, the treatment group made significant improvements over the control group on narrative writing. This supports the casual relationship previously found by Spencer and Petersen (2018) between targeting oral narrative language and generalized improvements in writing among young students.

In 2011 only 27% of eighth and twelfth grade students demonstrated proficient writing skills (National Assessment of Educational Progress, 2011). The current intervention targeted skills that were foundational to the development of academic writing, and results of this study demonstrated the potential to directly impact low writing performance through oral language intervention nationwide (Berninger, 2000).

This study specifically involved kindergarten students, a population that does not typically receive writing instruction outside of focusing on writing mechanics. The improvements in writing, as measured by content such as story grammar and language complexity, made by these kindergarten students provides evidence that even young students' writing can benefit from targeting oral language. Improving the oral language skills of children as young as 5 years may have long term implications. One of these implications may include improvement among national average scores in writing, which are currently not being met by 60%-80% of children in the U.S. (National Assessment of Educational Progress, 2017). With

improvement in oral language ability, more children will be equipped with the skills necessary to meet the CCSS, which require students as young as kindergarten to understand and use academic oral and written language (National Governors Association Center for Best Practices & Council of Chief State School Officers, 2010).

### Question 2: Comparing Tier 2 to At-Risk Matched Control Treatment Outcomes

The second question of the current study examined differences in performance across all measures between students in the Tier 2 group compared to a matched sample of at-risk students as seen in Figure 2.

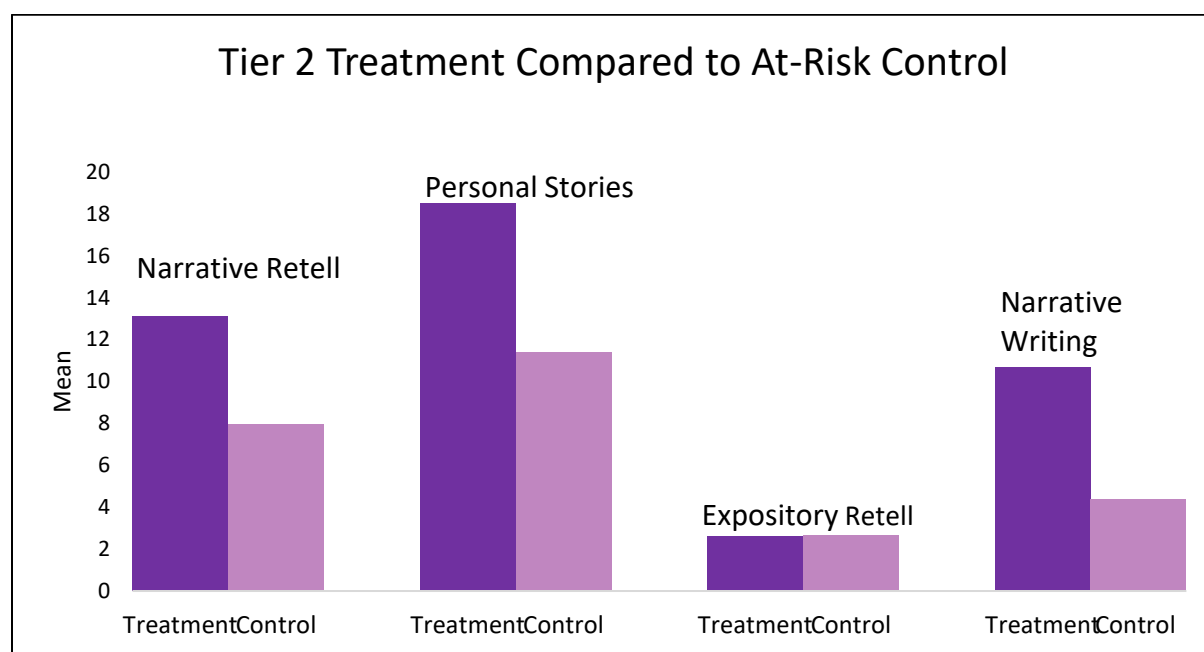


Figure 2. Posttest means of Tier 2 treatment compared to a matched at-risk control group across all measures.

in the control group. Results demonstrated that Tier 2 students significantly outperformed their at-risk control group peers across all measures with the exception of expository retell.

Thus, even kindergarteners who did not make adequate improvement after large group instruction responded in general to more explicit, intensive treatment as demonstrated by significantly higher scores on oral narrative retell, personal story generation, and narrative



writing tasks. Given what is known about the relationship between adequate early language skills and later academic success, it is possible that without an oral narrative language MTSL approach, these at-risk students in the Tier 2 group, who demonstrated poor oral narrative skills at pretest, may have continued to perform below academic expectations (Bruck, 1998; Griffin et al., 2004; Lee, 2010; Stanovich, 2009). With this in mind, the current study highlights the effectiveness of an MTSL oral language intervention in identifying, preventing, and remediating language deficits for at-risk young students (Fuchs & Deshler, 2007; Spencer et al., 2015).

On measures of expository retell, the Tier 2 group did not perform significantly better than at-risk students assigned to the control “business as usual” group. Generalization of skills across text genres was not significant with this group compared to their at-risk peers. However, this finding may be explained by the fact that expository texts were not addressed in intervention. Furthermore, previous research has found expository tasks (spoken and written) to be more difficult than narrative tasks, resulting in shorter and error prone expository oral retells, and written summaries (Scott & Windsor, 2000). Additionally, this group of students in the Tier 2 group previously demonstrated a need for more intense and explicit instruction as evidenced by not making gains after one month of large group oral narrative intervention. It may be unreasonable to expect that these students who required more explicit oral narrative intervention would generalize their newly developed skills to a genre (expository) that was not explicitly targeted.

### Question 3: Comparing Tier 2 to Average Matched Control Treatment Outcomes

The third research question compared the Tier 2 treatment group to a matched control group of average performing students across all measures as seen in Figure 3. At pretest, the average performing control group scored significantly higher across narrative retells, personal story generations, and expository retells. However, at posttest, there were no longer any significant differences between the groups. The narrative retell, personal story generation, and expository retell posttest results demonstrate that the at-risk group of students were able to perform similarly to, or catch-up to, their average scoring peers after receiving Tier 2 oral narrative language intervention.

At pretest, there was no significant difference in writing outcomes between the Tier 2 and matched average control group. This may be a result of writing not being a large focus of

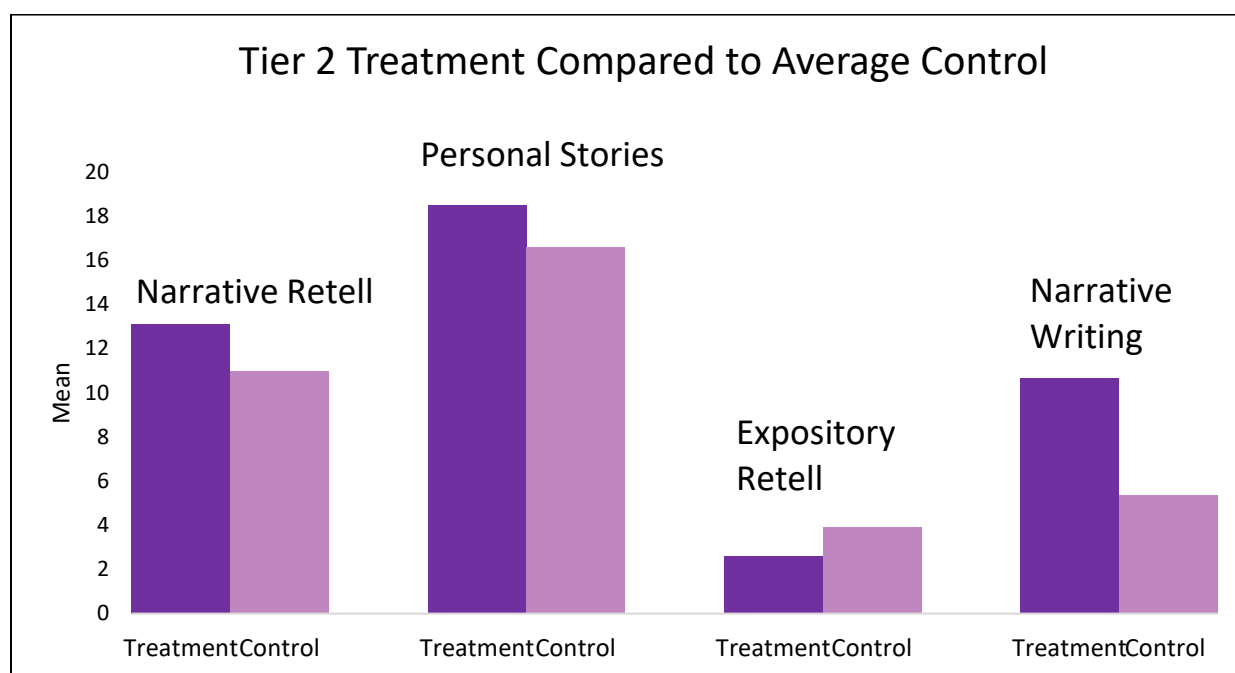


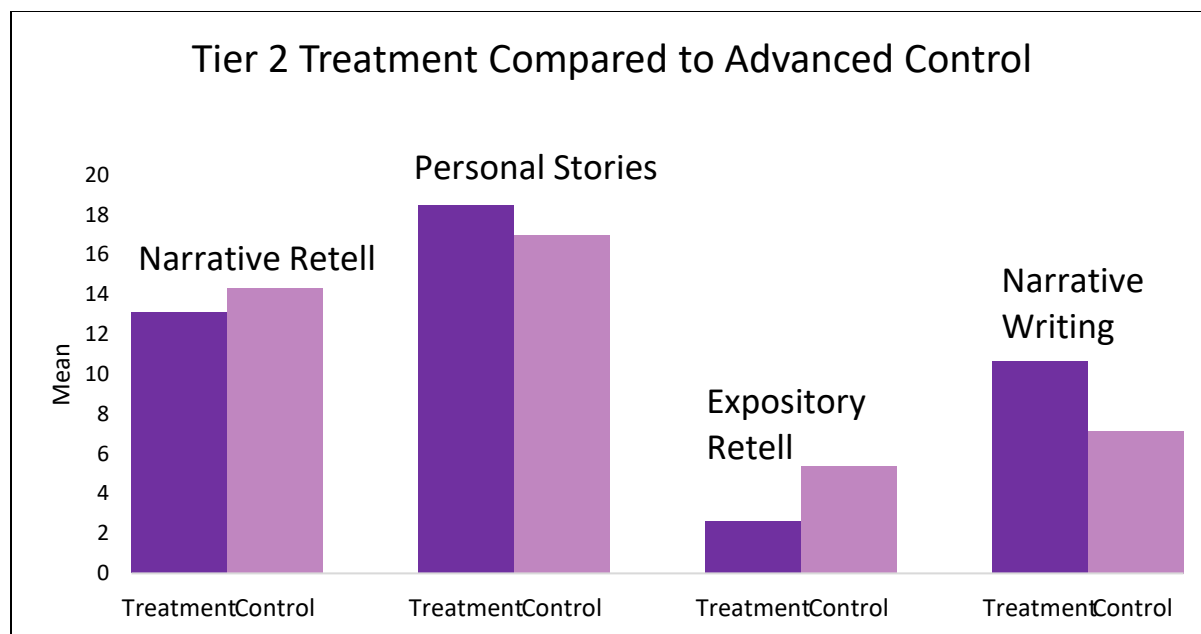
Figure 3. Posttest means of Tier 2 treatment compared to a matched average control group across all measures.

kindergarten instruction outside of writing mechanics. Both the Tier 2 students and the matched average control students had very low pretest writing scores, with means of 3.75 and 2.67,

respectively, out of a total possible score of 55, indicating a floor effect. In narrative writing, the Tier 2 treatment group scored significantly higher than their average peers at posttest, even though at pretest there was no significant difference. This indicates that the narrative intervention significantly accelerated the writing of the Tier 2 students and shows that writing content can be targeted with at-risk kindergarten students through oral language intervention. These results demonstrate that students who have limited oral language and limited writing can improve their writing to a level above their average performing peers when given intensive oral language intervention over a relatively short period of time.

#### **Question 4: Comparing Tier 2 to Advanced Matched Control Treatment Outcomes**

The final research question compared the Tier 2 treatment group to a matched sample of advanced students in the control group. The advanced control group performed significantly higher on expository measures at pretest and posttest compared to the at-risk Tier 2 treatment group as seen in Figure 4. This may be the result of expository text naturally being more difficult and the need for at-risk students to have more specific instruction before being able to generalize their skills across text genres. However, results indicated that posttest measures were not significantly different for oral narrative retell and personal story generation between the two groups. This means that the at-risk students were able to catch up to their advanced peers over a short period of time given intensive, Tier 2 oral narrative language intervention.



*Figure 4.* Posttest means of Tier 2 treatment compared to a matched advanced control group across all measures.

For narrative writing, the Tier 2 group continued to significantly outperform even their high achieving peers which implies that the students who were initially at-risk surpassed high performing children in the treatment group. Current writing instruction at the kindergarten level focuses almost exclusively on writing mechanics with little focus on text generation or content (Spencer & Petersen, 2018). Children need adequate skills in both areas and yet are not provided with the language instruction necessary to teach them how to formulate, organize and understand stories. The dramatically improved writing skills of the at-risk children provides evidence to support the idea that writing can and should be targeted earlier than when it is currently taught, and that this can be done by implementing oral language intervention for all students. This speaks to the effectiveness of multi-tiered oral language intervention, especially one that is individualized for students' needs.

## **Limitations**

One limitation of this study was that the expository measure was new, examiner-created, and did not have external validity or reliability data. It also appeared to be more difficult at posttest considering the average posttest means for the control group were consistently lower than scores at pretest. In the future a valid and reliable expository measure should be used to measure expository language. Additionally, it is possible that an explicit focus on expository language should accompany the oral narrative language intervention to better target expository outcomes.

Another limitation was that there were considerable missing data for narrative writing and for personal stories. Even though multiple imputations were used to account for those missing data, it would be better to have actual student scores. Additionally, some of the kindergarten students at pretest and posttest only drew pictures for their narrative writing, and this was found only in some schools. These drawings were not analyzed, and future research could account for drawing in the analysis of student writing.

Although this study had a large sample size, randomization to treatment and control groups was not done at the individual student level. Instead, classrooms were randomly assigned to the different conditions. Because there were numerous classrooms that participated in this study, these data could be analyzed using hierarchical linear modeling.

## **Conclusions**

This is the first study to compare the effects of oral narrative language intervention on at-risk students to average and advanced students across oral and written language outcomes. This is the largest clustered, randomized control study to date that focused on MTSLs for language. This study demonstrated that kindergarteners, including those with poor language skills, can

score similarly to or better than their average and advanced peers when given an appropriate, language intervention. The effects of implementing a MTSLS similar to the one in the current study could result in a large number of children receiving the additional help they need before special education is even considered. This has the potential to reduce the number of children who currently must “wait to fail” before being referred for special education services. Instead, those language problems can be addressed very early on in a child’s academic career to provide them the support they need to be successful in school. The implications of these findings are potentially profound. Classroom teachers conducted the large group intervention under the direction of the school-based SLPs, evidencing feasibility of implementation. Following the logical conclusion of these results, this study suggests that even students who have limited oral language skills can develop relatively advanced oral language skills and writing over a brief period of time. And research has clearly indicated that students with strong oral narrative language are more successful in later academic outcomes such as reading comprehension and writing. If gains in language can be made using a multi-tiered oral narrative intervention that is accessible to general education teachers, simple to follow, and effective, then overall academic performance well beyond kindergarten can be positively affected.

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## APPENDIX A

**Annotated Bibliography**

Brown, J. A., Garzarek, J. E., & Donegan, K. L. (2014). Effects of a narrative intervention on story retelling in at-risk young children. *Topics in Early Childhood Special Education*, 34, 154-164. doi:10.1177/0271121414536447

*Objective:* The purpose of this study was to examine the effects of narrative retell intervention with electronic self-monitoring on at-risk kindergarten students.

*Method:* The participants included three at-risk kindergarten students who were identified as “high risk” for a language disorder as measured by the Diagnostic Evaluation of Language Variation screener. The children were divided into small groups and participated in narrative intervention targeting basic story grammar elements through oral reading, retelling stories and listening to themselves retell stories to self-monitor.

*Results:* All three students improved significantly on narrative retell measures over 15 15-20 minute sessions. Follow-up data was taken 2 weeks after finishing intervention and all three participants maintained progress on measures of narrative retell. It also indicated that participants language complexity and narrative microstructure elements benefitted as a result of targeting narrative macrostructure. *Conclusion:* This study supports the idea that early narrative intervention including a self-monitoring feature component can increase oral narrative skills of young, at-risk children. *Relevance to work:* The findings indicate efficacy of early narrative intervention on at-risk kindergarten students. They suggest that targeting story grammar in small group in the classroom can lead to improved oral narration skills including improvement in narrative macrostructure and subsequent narrative language skills.

Chaney, C. (1998). Preschool language and metalinguistic skills are links to reading success. *Applied Psycholinguistics*, 19, 433-446. doi:10.1017/s0142716400010250

*Objective:* This longitudinal study analyzed the relationship between linguistic and metalinguistic skills, family background, and later reading success of a group of preschool children. *Method:* A group of 43 children were administered a variety of language tests assessing linguistic proficiency, print awareness and metalinguistic skills at age three. Language was measured using the PLS, PPVT, an Articulation and Discrimination exam and a Sentence Structure test. At age 7 follow-up tests assessing phonological awareness and reading comprehension were administered. *Results:* The results indicated a strong relationship between overall language development (including metalinguistic and print awareness and excluding rhyming and alliteration tasks) at age 3 and reading performance at age 7. Tests administered at age 7 included tests of phonological awareness, word attack, sound-letter correspondence, and comprehension (measured by a fill in the blank task). The relationship between reading scores and family background information was weak. *Conclusion:* Overall language development at age three is predictive of reading abilities at age 7. Metalinguistic and print awareness skills at age 3 were reflective of reading abilities at age 7. Variability in the children's reading abilities following first grade were consistent with the variability in PLS scores at age three. This supports the idea that metalinguistic skills, language ability and reading ability are related. Both metalinguistic skills and language skills at age 3 were found to be related to reading success at age 7. *Relevance to current work:* This study supports the idea that early language and linguistic skills are strongly related to school-age reading abilities.

Craig H., Connor C., & Washington J. (2003). Early positive predictors of later reading comprehension for African American students: A preliminary investigation. *Language, Speech, and Hearing Services in Schools, 34*, 31–43.

*Objective:* This longitudinal study examined the relationship between early oral language scores and later reading comprehension scores of African American children. *Method:* It's important to note that the preschoolers were from LSES households and received state-funded preschool instruction which focused on early literacy development. The kindergarten children were from MSES households and did not qualify for state-funded preschool programs. The participants included 50 African American students of varying SES and gender (25 preschool age and 25 kindergarten age) who participated in expressive and receptive language (answering “wh” questions), and nonverbal cognition tests. A multilevel analysis was completed at age 9 to determine the positive relationship between oral language and cognition skills and reading comprehension as measured by the Metropolitan Achievement Tests-Seventh Edition. *Results:* Both groups of students showed a steady increase in reading comprehension as they progressed through elementary school however, the preschool group experienced a faster rate of growth as compared to the kindergarteners. The kindergarten group fell below standards on reading comprehension after first grade. At age 9 kindergarteners were one grade level behind in reading comprehension which reflected the national “Black-White achievement gap”. In contrast, the preschool group met grade level expectations consistently from preschool to third grade. Not all of the early oral language measured predicted later comprehension skills. Two subtests including complex syntax and Triangles (assessment of nonverbal cognition) did predict later comprehension skills in the preschool group. *Conclusion:* Early complex syntax and pattern matching skills may be considered to have a possible role in the development of later reading

comprehension in African American students. *Relevance to work*: The study shows a difference in reading comprehension skills at age 9 between children who received state-funded preschool instruction and children who did not. It may indicate that early intervention emphasizing early literacy skills affects later reading comprehension.

Culatta, B., Hall-Kenyon, K. M., & Black, S. (2010). Teaching expository comprehension skills in early childhood classrooms. *Topics in Language Disorders, 30*, 323-338.

doi:10.1097/tld.0b013e3181ff5a65

*Objective*: This pilot study examined the effects of implementing an intervention designed to explicitly teach comprehension of expository texts among preschoolers. *Method*: Participants of this study included 71 preschool students ages 4-5. Speech-language pathologists and general education teachers collaborated to implement classroom instruction involving narrative texts, expository texts and mapping text structures. Measures of expository compare and contrast and problem/solution activities were taken and analyzed. Additional measures including parent and teacher interviews, parent surveys and classroom observations were collected. *Results*: The majority of students improved mapping compare/contrast text structures and retelling problem/solution tasks. Teachers and parents reported that students enjoyed the interactive structure of the intervention. *Conclusion*: Young children can make gains in comprehending expository texts when given explicit expository instruction that is related to the child's natural and familiar experiences. *Relevance to work*: This study provides evidence that preschool age children can attend to and benefit from explicit academic language instruction including discussing narrative elements.



Cutting, L. E., Materek, A., Cole, C. A., Levine, T. M., & Mahone, E. M. (2009). Effects of fluency, oral language, and executive function on reading comprehension performance. *Annals of Dyslexia*, 59, 34-54. doi:10.1007/s11881-009-0022-0

*Objective:* The purpose of this study was to examine the relationship between bottom-up (decoding at the word level) and top-down processes (higher level cognitive skills related to oral language and executive functioning) and how they contribute to reading comprehension problems. *Method:* The participants included 74 children ages ranging from 9-14. They were placed into three groups (typically developing TD, general reading disability GRD, and specific reading comprehension disability S-RCD) based on poor decoding skills measured by the Woodcock Reading Mastery Test (WRMT) and the Test of Word Reading Efficiency (TOWRE), and poor comprehension skills on either the Gray Oral Reading Test- Forth Edition Comprehension or a comprehension reading passage from the WRMT. Oral language was measured by the PPVT-III and the TOLD-Grammatic Comprehension and Sentence Combining Subtests. Executive functioning was measured by the Tower of London TOL, Elithorn Perceptual Maze Test and a Digit Span Backwards subtest from the WISC-III. *Results:* On reading fluency measures, TD and S-RCD children tested similarly when reading individual words with GRD testing significantly below. On measures of reading in context S-RCD performed lower than TD and higher than GRD group. On oral language measures both RD groups scored lower than TD children with RD scoring the lowest on some oral language measures. Executive functional measures indicated the S-RCD children scored significantly lower than both TD and GRD groups. *Conclusion:* Reading comprehension involves higher level processing skills that are not accounted for when reading at the word level including oral language and most significantly, executive functioning skills. *Relevance to work:* This study

supports the idea that reading comprehension involves higher level cognitive skills including adequate oral language skills. It also suggests that reading fluency at a context level may result in slower fluency compared to reading at the word level as a result from deficits in language and executive functioning. This is relevant to the current work as it implies that measuring reading rate at the word level does not reflect reading comprehension.

Griffin, T. M., Hemphill, L., Camp, L., & Wolf, D. P. (2004). Oral discourse in the preschool years and later literacy skills. *First Language, 24*, 123-147.

doi:10.1177/0142723704042369

*Objective:* This longitudinal study examined the relationship between 32 preschoolers' oral narrative and expository discourse and their reading comprehension and writing abilities at age 8.

*Method:* This study examined early discourse skills from a group of children at age 5. Specific skills tested included both narrative (play narrative) and expository (picture description) measures. The Index of Productive Syntax also measured syntactic complexity of conversational language. At age 8 reading comprehension and written narratives were assessed. Reading comprehension of both narrative and expository texts were assessed using the Gray Oral Reading Test. Writing was assessed and analyzed by elementary literacy specialists using a narrative composition task. *Results:* The use of evaluation devices (adjective, identifiers, comments on characters' emotional or physical states) in play narratives at age 5 correlated with reading comprehension at age 8 but was only weakly related with later writing tasks. Skills involving organizing story elements and expository discourse were both correlated with writing skills at age 8. However, those "macrostructure" or organizational skills showed very little correlation with reading comprehension at age 8. Additionally, elaboration on the play narrative plot at age 5 showed a correlation to later writing skills but not reading comprehension. Expository discourse

skills at age five showed differing effects on later literacy with structure of oral discourse being associated with later writing skills and description of details associated with reading comprehension proficiency at age 8. *Conclusion:* The authors conclude that oral discourse in expository and narrative language has a complex association with reading comprehension and writing skills at age 8. More specifically, organized structure in narrative and expository discourse, elaborated plots (including multiple story elements: sub-plots, problems and resolution), and the use of narrative evaluation (adjectives, intensifiers etc.) and elaborated information (mentioning the physical or emotional state of a character) may be related to later writing and reading comprehension skills at age 8. *Relevance:* Early expository and narrative oral language skills are associated with later academic skills including writing and reading comprehension.

Jenkins, J. R., Fuchs, L. S., Broek, P. V., Espin, C., & Deno, S. L. (2003). Accuracy and fluency in list and context reading of skilled and RD groups: Absolute and relative performance levels. *Learning Disabilities Research and Practice, 18*, 237-245. doi:10.1111/1540-5826.00078

*Objective:* The purpose of this study was to detect differences in reading abilities including rate, accuracy, and idea processing among fourth graders with reading disabilities (RD) and skilled readers (SR) when reading an academic passage. *Method:* Reading and comprehension measures were assessed using the Iowa Test of Basic Skills reading comprehension subtest. The participants included 85 SR 4<sup>th</sup>-grade students and 24 4<sup>th</sup>-graders with RD as measured by the comprehension subtest of the ITBS. They were given a 3<sup>rd</sup>-grade reading level folklore passage in two different formats. One was what might typically be encountered in the classroom called context reading and the other was randomly listed words from the passage. Measures of

accuracy, rate, and idea processing were measured. Idea processing was measured by dividing the passage into different idea units, taking the average number of words per unit and using an individual's reading rate to calculate the number of idea units encountered.

*Results:* All participants had increased accuracy and speed when reading the context passage as opposed to the list format. The skilled reader group performed significantly better on measures of rate and accuracy and were exposed to more "idea units" compared to the RD group.

*Conclusion:* This study concluded by suggesting that the differences in reading rate among skilled readers and RD may account for comprehension differences. This study recommended that teachers consider fluency (corrects words read in a minute) as an accurate measure of reading abilities and to measure reading progress. *Relevance to work:* This study supports the idea that when children can read fluently, adequate comprehension or "idea processing" of the text follows.

Larney, R. (2002). The relationship between early language delay and later difficulties in literacy. *Early Child Development and Care*, 172, 183-193.

doi:10.1080/03004430210890

*Objective:* This article reviewed the findings of four studies evaluating the correlation between early language delays and later literacy difficulties. *Method 1:* In all four studies, children ages ranging from 2-19 years, with a variety of early expressive language problems were examined. Measures of the Test of Language Development, Peabody Picture Vocabulary Test, Goldman-Fristoe-Woodcock Auditory Memory Tests, Language Development Survey, and the Kahn-Lewis Phonological Analysis were used to determine early language problems. Follow-up measures examined narrative generation, metaphonological skills, reading comprehension and decoding. *Results:* Study 1: The majority of children with persisting language impairment at age

5 also had impaired literacy skills at ages 8:6 and 15-16. The majority of children with good language outcomes at age 5 also had relatively normal reading abilities by ages 8:6 and 15-16.

Study 2: By age 5, 17 had typical expressive language with a history of expressive language delay (HELD) and 10 had persisting expressive language delay (ELD). The HELD group scored within low-normal limits on standardized language tasks and no significant differences related to literacy. The ELD group also had relatively normal language scores. Both groups performed similarly to typical peers on narrative generation tasks.

Study 3: The results indicated persistence of poor speech and language skills from preschool to school-age (8-11) years.

Study 4: Results indicated a strong relationship between diagnostic labels (i.e. speech impaired, language impaired) at age 5 and age 19. The individuals with language deficits at age 19 performed significantly below those with normal speech or only speech impairments on speech and language assessments.

*Conclusion:* All but one study supports the idea that early language problems relate to later reading difficulties. Studies 1,3 and 4 conclude that there is a correlation between early language impairment (and general delays) and later reading, cognitive and academic skills. Preschool children with language impairment are likely to have persisting language problems including reading, comprehension and spelling. There is a correlation between all children with early language delays and later literacy skills with increasing severity as the language impairment persists. Study 2 contrasts this idea by concluding that Specific Expressive Language Disorder does not significantly relate to later literacy difficulties.

*Relevance to current work:* With the exception of study 2, the findings indicated that early language skills are reflective of later academic success specifically in the areas of reading, language, and comprehension.

Lee, J. (2010). Size matters: Early vocabulary as a predictor of language and literacy competence. *Applied Psycholinguistics*, 32, 69-92. doi:10.1017/s0142716410000299

*Objective:* This longitudinal study examined the relationship between early oral language at age 2 and later literacy skills at age 11 in typically developing children. It examined how toddler language played a role in later reading competence and whether lexical composition or lexical size better predicted literacy development from ages 3-11. *Method:* The study followed 1,071 children of varying ethnicities and socioeconomically backgrounds. The children's primary caregivers completed a MacArthur-Bates CDI checklist at 24 months of age. The results were analyzed and used to separate participants into small and large vocabulary groups. Sixteen additional language and literacy measures were administered and analyzed throughout the course of the study. *Results:* Children with larger vocabularies at 24 months of age out performed their peers in language measures at 36 and 54 months. They continued to have increased vocabularies at age 54 and performed significantly better on decoding tests in first grade and marginally better in third grade. Students with larger vocabularies also scored significantly higher on comprehension measures in first grade and third grade. *Conclusion:* Early language skills of typically developing children at age 2 can accurately predict subsequent literacy and language skills over the course of 9 years. Additionally, total vocabulary size is a greater indicator of later literacy skills as compared to early lexical composition. *Relevance to current work:* This study highlights the importance and long-term effects of early vocabulary in future language and literacy competence.

Spencer, T. D., Petersen, D. B., & Adams, J. L. (2015). Tier 2 Language intervention for diverse preschoolers: An early-stage randomized control group study following an analysis of

response to intervention. *American Journal of Speech-Language Pathology*, 24, 619.

doi:10.1044/2015\_ajslp-14-0101

*Objective:* The purposes of this study were to determine the effectiveness of a narrative based dynamic assessment at identifying participants for tier 2 intervention, as well as examining the effects of a Tier 2 narrative language intervention. *Method:* The participants included 22 culturally and linguistically diverse preschoolers. After implementing a test-teach-test narrative assessment, twelve students were randomly assigned to treatment and 10 were assigned as the control group. Children in the treatment group received small group oral narrative language intervention (*Story Champs*) while the control group participated in their typical classroom instruction. Both groups' progress was measured by a Narrative Language Measures *NLM* pre and posttest, the Renfrew Bus Story, and through shared personal narratives. *Results:* Results showed that the treatment group scored significantly higher on story retelling posttests (*NLM* and Renfrew Bus Story) measures as compared to the control group. Follow-up data did not show significant differences in the children's personal stories. *Conclusion:* A dynamic assessment is a more accurate measure of students who can learn language after receiving instruction whereas static assessments are more likely to overidentify students as being disordered as they only indicate current level of performance. Narrative intervention was successful in improving treatment group story retells as posttest narratives showed age appropriate story episodes, additional story elements and complex language features.

*Relevance to work:* This study demonstrates the effectiveness of a multi-tiered narrative intervention with a young population.

Spencer, T. D., & Petersen, D. B. (2018). Bridging oral and written language: An oral narrative language intervention study with writing outcomes. *Language Speech and Hearing Services in Schools, 49*, 569. doi:10.1044/2018\_lshss-17-0030

*Objective:* The purpose of this study was to determine if there was a causal relationship between implementing a narrative language intervention and writing skills. *Method:* The participants included kindergarten and first grade students, and the intervention was implemented by the classroom teacher. The intervention targeted narrative language using *Story Champs* in small groups for 20-30 minutes three times a week for 2 weeks. Intervention included group and individual story retell and generation opportunities. Writing samples were collected from the students on most days of the intervention. *Results:* All but two of the students' scores were higher, compared to their baseline scores, during the intervention phase and their scores at maintenance were higher than baseline scores and similar to the interventions scores. Most of the growth had to do with improved story grammar elements and smaller but positive gains were made in language complexity. All of the students except one experienced growth in their writing skills as evidenced by creating longer stories with more story grammar elements and more complete episodes. With the exception of one student all participants continued to perform above their baseline on writing measures even 3-4 weeks after the intervention was provided. For all but one student the effect of the intervention was judged to be moderate to strong. *Conclusion:* This study provides evidence that there is a causal relationship between oral narrative language instruction with first graders and positively impacted writing skills. *Relevance to work:* This supports the idea that there is a causal relationship between early oral language skills and writing. Additionally, it provides evidence that there is a causal relationship between oral



narrative intervention and improved writing among young students that traditionally don't receive writing instruction outside of writing mechanics.

Spencer, T. D., Weddle, S. A., Petersen, D. B., & Adams, J. A. (2018). Multi-tiered narrative intervention for preschoolers: A Head Start implementation study. *NHSA Dialog*, *20*, 1–28.

*Objective:* The purpose of this study was to examine the effect of a multi-tiered oral narrative intervention on story retelling and story comprehension with preschool students in three Head Start classrooms. The second purpose was to identify how feasible the implementation of the MTSLs was for teachers and their assistants. *Method:* The participants included preschool students from three Head Start classrooms. *Story Champs* narrative intervention was implemented by the teachers and their assistants in large and small groups and in individual sessions. Progress was monitored using the *NLM* narrative retell task. The Assessment of Story Comprehension was used to measure story comprehension, a distal outcome of this study with narrative retell being the proximal outcome. The teachers were given a questionnaire each month to rate the self-efficacy, support they received, ease of intervention, and engagement of students from January to April while the intervention was being implemented. *Results:* The results indicated that the students' scores in narrative retells and story comprehension were statistically significantly improved from winter to spring. Also, the teachers rated the intervention to be higher across all measures from January to April. *Conclusion:* The results indicated that the MTSLs narrative intervention was effectively implemented in the Head Start classrooms and that the students made statistically significant improvements in both story retelling and language comprehension. *Relevance to work:* This supports the idea that a MTSLs narrative intervention can be effectively implemented by general education teachers even with young students. It also

provides evidence that targeting oral narrative language leads to improved story retelling and story comprehension skills.

Weddle, S. A., Spencer, T. D., Kajian, M., & Petersen, D. B. (2016). An examination of a multitiered system of language support for culturally and linguistically diverse preschoolers: Implications for early and accurate identification. *School Psychology Review, 45*, 109-132. doi:10.17105/spr45-1.109-132

*Objective:* The purpose of this study was to examine the effects of a MTSL narrative language intervention on story grammar and complex language in personal narratives and story retells on culturally and linguistically diverse preschoolers. A second purpose was to determine its effects on special education referrals within a diverse Head Start classroom. *Method:* The language skills of all preschool students from three Head Start classes were assessed using a dynamic language assessment screener. Seven students whose scores indicated limited response to the dynamic assessment instruction were randomly chosen for Tier 2 intervention. Test of Narrative Retell and Test of Personal Story Generation subtests were used to collect continuous data points. *Story Champs* was used in small groups as the narrative intervention. *Results:* The general trend indicated improvement in narrative retell after implementing small group Story Champ intervention with “moderate- high” maintenance a month following intervention. Improvements were also made in generating personal stories however there was significant variability among participants that effected the clarity of these measures. *Conclusion:* All seven students scored above baseline on narrative retells and personal narratives when measured for follow-up data. Additionally, only one of the seven students were referred for special education services. The authors concluded that narrative intervention can positively affect the oral narrative and linguistic complexity of kindergarten student in addition to improve specificity of special

education referrals by implementing a MTSLS. *Relevance to work:* This study demonstrates the importance of implementing MTSLS to benefit students who would not otherwise qualify for services and to prevent students from receiving special education services unnecessarily. It also supports the idea that early narrative intervention can result in improved oral narrative and linguistic skills in at-risk children.

## APPENDIX B

## Pretest CUBED Narrative Language Measures



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NLM Kindergarten - Benchmark STORY 7

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?"

The other day, **Logan** was quietly lying in bed at home because he was ill. Logan's body hurt, but it was his ear that hurt him the most. Logan was sad because he did not like being sick. He thought he should go see a doctor. Logan went to see the doctor. Then he anxiously asked, "Do you have medicine to make my ear better?" The doctor said, "I will give you some medicine, then you need to go to bed." When the nice doctor gave Logan some medicine his earache went away. After Logan took a big long nap he was happy because his ear felt better.

Examiner says, "Thanks for listening. Now you tell me that story."

Acceptable Prompts, "It's OK. Just do your best"; "I can't help but you can just tell the parts you remember."

Examiner says, "Are you finished?"

**Test of Personal Generation (TPG) Elicitation**

Examiner says, "Thank you for telling me that story. Has anything like that every happened to you?"

If child says "yes" but does not begin telling a story say, "Tell me a story about it."

Be persistent until the child produces a story.

STORY GRAMMAR (SG)	2 POINTS		1 POINT		0
<b>Character</b>	Logan / any name	2	the boy	1	
<b>Setting</b>	lying in bed at home	2	lying in bed / home	1	
<b>Problem (P)</b>	his ear hurt / he felt sick / he was sick / his body hurt	2	didn't like being sick / was hurt	1	
<b>Emotion</b>	sad / mad / upset / angry	2	didn't like it / cried / screamed	1	
<b>Plan</b>	-		decided / thought	1	
<b>Attempt (A)</b>	said, "Do you have medicine?" / asked doctor for medicine	2	said to the doctor / asked for help	1	
<b>Consequence (C)</b>	doctor said "I will give you some medicine." / told him to go to bed /	2	helped him feel better / gave him some / got medicine / took a nap	1	
<b>Ending (E)</b>	earache went away/ he felt much better / ear felt better	2	got better / not sick anymore	1	
<b>Ending Emotion</b>	happy	2	felt better / liked it / smiled	1	
<b>STORY GRAMMAR (SG) SUBTOTAL =</b>					<input type="text"/>

LANGUAGE COMPLEXITY (LC)			
(1 point for each use)			
<b>then</b>	1		
<b>because</b>	1	2	3
<b>when</b>	1	2	3
<b>after</b>	1	2	3
	1	2	3
	1	2	3
<b>LANG. COMPLEXITY (LC) SUBTOTAL =</b>			<input type="text"/>

EPISODE (Calculated from shaded SG)			
<b>P+A</b>	<b>P+C</b>	<b>A+C</b>	2
	<b>P+C+E</b>	<b>P+A+E</b>	3
		<b>P+A+C</b>	4
		<b>P+A+C+E</b>	5
<b>EPISODE (E) SUBTOTAL =</b>			<input type="text"/>

<b>NLM TOTAL (SG+LC+E) =</b>	<input type="text"/>
------------------------------	----------------------

Child:

Examiner:

File:

Date:

APPENDIX C

NLM Flow Chart

NLM Flow Chart

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Child Name/ID#: \_\_\_\_\_

Grade: \_\_\_\_\_ Teacher: \_\_\_\_\_

School: \_\_\_\_\_

Examiner/Transcriber/Scorer: \_\_\_\_\_

	YEAR	MO	DAY
Date Tested			
Date of Birth			
Child's Age			

Type of Narrative:  
Check all that apply

- Oral
- Written
- Personal Generation (Gen)
- Fictional Generation (Gen)
- Retell
- Frog Where Are You? (FWAY)
- Other: \_\_\_\_\_
- Other: \_\_\_\_\_

Language Complexity Score: \_\_\_\_\_

Story Grammar Score: \_\_\_\_\_

Writing Conventions Score (optional): \_\_\_\_\_

**TOTAL SCORE:** \_\_\_\_\_

WRITING CONVENTIONS (OPTIONAL)

ILLUSTRATION	CAPITALIZATION	PUNCTUATION	SPELLING
Picture related to writing or dictation → <b>1</b>	correct capitalization (e.g., The dog was named Spot) → ALWAYS <b>3</b> , SOMETIMES <b>2.5</b>	correct quotations, commas, apostrophes, and end punctuation (e.g., He ran, then said "that's David's toy.") → ALWAYS <b>3</b> , SOMETIMES <b>2.5</b>	correctly spelled grade appropriate words → ALWAYS <b>3</b> , SOMETIMES <b>2.5</b>
↓ NO	↓ NO	↓ NO	↓ NO
Recognizable picture not related to writing or dictation → <b>.5</b>	capitalize proper nouns (e.g., the dog was named Spot) → ALWAYS <b>2</b> , SOMETIMES <b>1.5</b>	correct commas, apostrophes, and end punctuation (e.g., He ran, then said that's David's toy.) → ALWAYS <b>2</b> , SOMETIMES <b>1.5</b>	generalized spelling patterns (e.g., He was taught naught to run) → ALWAYS <b>2</b> , SOMETIMES <b>1.5</b>
↓ NO	↓ NO	↓ NO	↓ NO
<b>0</b>	capitalize first word in sentence (e.g., The dog was named spot) → ALWAYS <b>1</b> , SOMETIMES <b>.5</b>	correct end punctuation (e.g., He ran then said that's David's toy.) → ALWAYS <b>1</b> , SOMETIMES <b>.5</b>	grade appropriate sight words & phonetic spelling (e.g., He wazz tad not to run) → ALWAYS <b>1</b> , SOMETIMES <b>.5</b>
↓ NO	↓ NO	↓ NO	↓ NO
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**EMERGENT WRITING**

Conventional letters → <b>1</b>	Mock letters → <b>.5</b>
↓ NO	↓ NO
<b>0</b>	<b>0</b>

**WRITING CONVENTIONS SCORE:** \_\_\_\_\_

LANGUAGE COMPLEXITY

PREPOSITIONS	VERB/NOUN MODIFIERS	VOCABULARY/RHETORIC	TEMPORAL TIES	CAUSAL TIES	DIALOGUE
3 or more prepositions (e.g., over, from, by, under, in, on, to, at, with, through, up, down) → YES <b>3</b>	relative pronoun(s) after noun and descriptive modifiers (e.g., that, who, which, who's) and (e.g., he asked politely) → YES <b>3</b>	3 or more less-common words/idioms/analogies/metaphors/similes (e.g., the owl swooped) or (her gaze was icy) → YES <b>3</b>	1 or more subordinating (e.g., when, after, before) → YES <b>3</b>	3 or more subordinating (e.g., because, so (that), since) → YES <b>3</b>	2 or more quoted speakers (e.g., I said, "mom I need your help" and mom said, "I'll get a band-aid") → YES <b>2</b>
↓ NO	↓ NO	↓ NO	↓ NO	↓ NO	↓ NO
2 prepositions (e.g., by, near) → YES <b>2</b>	relative pronoun(s) after noun or 2 consecutive descriptive modifiers (e.g., that, who, which, who's) or (the big dirty dog) → YES <b>2</b>	2 less-common words/idioms/analogies/metaphors/similes (e.g., he tumbled) or (black as night) → YES <b>2</b>	1 or more less-common coordinating (e.g., meanwhile, ever/et, finally) → YES <b>2</b>	2 subordinating (e.g., because, so (that), since) → YES <b>2</b>	1 quoted speaker (e.g., mom said, "I'll get a band-aid") → YES <b>1</b>
↓ NO	↓ NO	↓ NO	↓ NO	↓ NO	↓ NO
1 preposition (e.g., across) → YES <b>1</b>	1 descriptive modifier before or after verb/noun (e.g., the big dog) or (he ran quickly) → YES <b>1</b>	1 less-common words/idioms/analogies/metaphors/similes (e.g., he crept to the door) → YES <b>1</b>	1 or more common coordinating (e.g., then, next, so (then)) → YES <b>1</b>	1 subordinating (e.g., because, so (that), since) → YES <b>1</b>	<b>0</b>
↓ NO	↓ NO	↓ NO	↓ NO	↓ NO	↓ NO
<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>

**LANGUAGE COMPLEXITY SCORE:** \_\_\_\_\_

## STORY GRAMMAR

### CHARACTER

**Retell**  
all main characters and most secondary characters from model story  
FWAY: (e.g., boy, dog, frog, bees, gopher, owl, etc.)

**OR**

**Generation**  
personal generation first person pronoun and proper noun (e.g., I & John)  
fictional generation 2 or more proper nouns (e.g., John & Miguel)

personal generation first person pronoun and general noun (e.g., I & boy) or (me and my mom)  
fictional generation 1 proper noun (e.g., John)

personal generation first person pronoun or general noun (e.g., I or boy)  
fictional generation general noun (e.g., boy)

all main characters from model story  
FWAY: (e.g., boy)

approximation of main characters from model story  
FWAY: (e.g., girl, bird)

no character/only pronoun(s)  
(e.g. he, she, it)

### SETTING

all of following explicitly stated (anywhere in story): time, activity, location  
FWAY: (e.g., night/morning + sleeping/wake up + bedroom)  
Gen: (e.g., today + skateboarding + park)

2 of following explicitly stated: time, activity, location  
FWAY: (e.g., night/morning + bedroom) or (sleeping/wake up + bedroom)  
Gen: (e.g., today + skateboarding) or (skateboarding + park)

1 of following time, activity, location  
FWAY: (e.g., night/morning) or (bedroom)  
Gen: (e.g., today) or (skateboarding)

incomplete or unclear setting-like info  
FWAY: (e.g., boy in there) or (in bed) or (on the rock)  
Gen: (e.g., me and my brother the skateboard) or (at the fridge) or (on the trampoline)

### PROBLEM

2 or more  
1 complete and clear  
FWAY: (e.g., frog is gone)  
Gen: (e.g., was falling off the skateboard)

incomplete or unclear  
FWAY: (e.g., no frog)  
Gen: (e.g., couldn't do it)

implied  
FWAY: (e.g., he wanted the frog)  
Gen: (e.g., needed bone-ax)

### PLAN/ATTEMPT

2 or more  
1 complete and clear by main character or storyteller  
FWAY: (e.g., boy looked for frog)  
Gen: (e.g., I asked brother to help me skateboard) or (I decided to get brother's help)

complete and clear by secondary character  
FWAY: (e.g., dog looked for frog)  
Gen: (e.g., brother helped me skateboard) or (brother decided to help me skateboard)

incomplete or unclear by any character  
FWAY: (e.g., he went outside)  
Gen: (e.g., I talked to my brother) or (I made a plan)

plan/action not related to problem  
FWAY: (e.g., he called to his dog)  
Gen: (e.g., I took a picture) or (I decided to take a picture)

### CONSEQUENCE

2 or more  
1 complete and clear related to attempt or problem  
FWAY: (e.g., boy found his frog)  
Gen: (e.g., brother held my hand to help me)

incomplete or unclear related to attempt or problem  
FWAY: (e.g., he got it)  
Gen: (e.g., I got help)

consequence-like info not related  
FWAY: (e.g., his dog came to him)  
Gen: (e.g., my mom liked it)

### ENDING

complete and clear  
FWAY: (e.g., he took baby frog home)  
Gen: (e.g., I had fun skateboarding)

incomplete or unclear  
FWAY: (e.g., he went home)  
Gen: (e.g., I did it)

### EMOTION

2 different emotions  
FWAY/Gen: (e.g., sad + happy)

1 emotion  
FWAY/Gen: (e.g., sad)

general emotion or emotional behavior  
FWAY/Gen: (e.g., liked it) or (cried)

### SEQUENCE

Does the story have acceptable sequence  
YES 3  
NO 0

### EPISODE COMPLEXITY

(ONLY SHADED POINTS qualify for episode complexity score)

3 + 3	3 + 2	2
4 + 3 or 4 + 3 or 3 + 3 + 2		3
4 + 3 + 2 or 3 + 3 + 3		5
4 + 3 + 3 or 3 + 3 + 3 + 2		6
4 + 4 + 3 or 4 + 3 + 3 + 2		7
4 + 4 + 4 or 4 + 4 + 3 + 2		8
4 + 4 + 4 + 2		9

**STORY GRAMMAR SCORE:**   
(including episode complexity)

**NLM Flow Chart**  
©2016 Language Dynamics Group

## APPENDIX D

## Pretest Expository Language Retell Measure

 Narrative Language Measures © 2013 at the University of North Carolina Information: Comprehension & Expression (ICE) **Kinder – 1!**

**Examiner says,** "I'm going to tell you some information. When I'm done you are going to tell me the same information. Are you ready?" "Some frogs live in trees." "Now you tell me that information." *If necessary, help child say at least 2 or 3 key words.*  
**Examiner says,** I'm going to ask you a question about what I just told you. "Where do some frogs live?" *Help child say answer.*  
**Examiner says,** "Now I'm going to tell you some more information. Please listen carefully. When I'm done you are going to tell me the same information. Are you ready?"

Sea pigs are unusual animals. They are a type of sea cucumber that dwells in the deep dark ocean. Sea pigs find their food by smell because they do not have eyes. They eat rotten whales that are on the bottom of the ocean. They can be 6 inches long and fit in your hand.

**Examiner says,** "Thanks for listening. Now you tell me that information."  
 If child does not respond or only tells the main idea or one detail, Examiner says, "Tell me everything you remember."

STRUCTURE		2 POINTS	1 POINT		0
Main Idea	sea pig unusual / sea pig strange	2	sea pig / ocean pig	1	
Detail 1	is a sea cucumber	2	like a cucumber	1	
Detail 2	lives in ocean	2	swims in water	1	
Detail 3	finds food by smell	2	smells things	1	
Detail 4	doesn't have eyes / can't see / its is blind	2	gets lost	1	
Detail 5	eats rotten whales / eats on bottom of ocean	2	likes yucky food	1	
Detail 6	6 inches long / can fit in hand	2	little	1	
STRUCTURE (ST) SUBTOTAL =					<input type="text"/>

LANGUAGE COMPLEXITY (LC)			
(1 point for each use)			
Modifiers	1	2	3
because	1	2	3
that	1	2	3
unusual	1		
dwells	1		
rotten	1		
<input type="text"/>			

**Retell Score (ST+LC) =!**

**Examiner says,** "Thank you. Now I'm going to ask you some questions."

Question	2 POINTS		1 POINT		0
Where do sea pigs live?	in the ocean	2	water	1	
How big are sea pig?	6 inches / a hand	2	small	1	
Why do sea pigs find their food by smell?	blind / no eyes / can't see	2	hungry / need to	1	
QUESTIONS (Q) SUBTOTAL =					<input type="text"/>



**Total Score (ST+LC+Q) =!**

Child:

Examiner:

File:

Date:

## APPENDIX E

## Large Group Narrative Intervention Fidelity Checklist

LARGE  
GROUP

MASTER LESSON PLAN

2


TARGET


## Enhanced Story Structure - Retell


Consider ADD ON lessons 58-63


## MATERIALS


- ✓ Choose any **CLASSIC** or **BLITZ Level B** story from story book
- ✓ **Illustrations**
  - If using illustration cards, select cards from corresponding story (for **BLITZ** stories, use only **cards 1, 2, 3, 7 and 8**)
  - If using digital presentation, click on the purple **Level B** button and select the corresponding story
- ✓ **Story Grammar Icons** (icons are included in the digital presentation)
 


  
character


  
setting

  
problem

  
feeling

  
action

  
ending

  
end feeling
- ✓ **Champ Checks Dry Erase Boards** and dry erase markers
  - Use purple **LEVEL B** boards (markers not provided)

## 1 – Model Story

- Display 5 illustrations
- Read the story
- Place Story Grammar icons on or near illustrations
- As needed: Name the Story Grammar parts and point to icons
- As needed: Students name the Story Grammar parts

## REMEMBER!

- ✓ Use **2-Step Prompting** to help students
  - 1) Ask a question
  - 2) Model what the student should say
- ✓ Make corrections immediately

## 2 – Play Story Gestures

- Reread the story
- As needed: Model the Story Gestures as Story Grammar parts are read
- As needed: Help students play Story Gestures as they listen

## 3 – Team Retell

- Repeat teaching steps for each question
  - Do not allow students to raise their hands; every student should have a response ready
  - Call on an individual student to answer the question and to retell the part of the story
  - Help the individual student to retell the part if needed
  - Model what all the students need to repeat
  - All students repeat the sentence together
- “What happened in the first picture?” or “Who was the story about?”
- “Where was he/she in this story?” or “What was he/she doing?”
- “What was his/her problem?”
- “How did he/she feel about his/her problem?”
- “What did he/she do to fix his/her problem?”
- “How did the story end?”
- “How did he/she feel at the end of the story?”

## 4 – Partner Retell

- Put students into pairs and pass out Champ Checks
- Students take turns retelling the story with a partner
- Help students as needed; praise



## APPENDIX F

## Small Group Narrative Intervention Fidelity Checklist

**SMALL  
GROUP**  
MASTER LESSON PLAN  
**26**


TARGET


## Enhanced Story Structure


Consider ADD ON lessons 58-63


**MATERIALS**


- ✓ Choose any **CLASSIC** or **BLITZ Level B** story from story book
- ✓ **Illustrations**
  - If using illustration cards, select cards from corresponding story (for **BLITZ** stories, use only **cards 1, 2, 3, 7 and 8**)
  - If using digital presentation, click on the purple **Level B** button and select the corresponding story
- ✓ **Story Grammar Icons** (icons are included in the digital presentation)
 


  
character


  
setting

  
problem

  
feeling

  
action

  
ending

  
end feeling
- ✓ Choose a **Story Game**
  - Each student should have 1 cube, 1 bingo card, **OR** 7 sticks (game materials are not needed to play Story Gestures)

**1 – Model Story**

- Display 5 illustrations
- Read the story
- Place Story Grammar icons on or near illustrations
- As needed: Name the Story Grammar parts
- As needed: Students name the Story Grammar parts

**2 – Team Retell**

- Leave illustrations on table
- Pick up icons and give each student 1-2 icons; keep one for yourself if necessary
- Starting with the person who has the Character icon and moving through the parts in order, each person retells the part of the story
- Students place icons on or near illustrations
- Summarize the story quickly and ensure that all parts are included

**3 – Individual Retell 1**

- Leave illustrations and icons on table
- Select one student to retell entire story
- Help the student retell all parts of the story
- Everyone, but the storyteller, plays a Story Game
- Summarize the story quickly and ensure that all parts are included

**4 – Individual Retell 2**

- Remove illustrations and leave icons on table
- Select one student to retell entire story
- Help the student retell all parts of the story
- Everyone, but the storyteller, plays a Story Game
- Summarize the story quickly and ensure that all parts are included

**5 – Individual Personal Story 1**

- Leave icons on table
- Select one student to tell a personal story
- Say, “Has something like that every happened to you?”
- Help the student generate all parts of the student’s personal story
- Everyone, but the storyteller, plays a Story Game
- Summarize the student’s story

**6 – Individual Personal Story 2**

(skip if fewer than 4 students)

- Remove icons from table
- Select one student to tell a personal story
- Say, “Has something like that every happened to you?”
- Help the student generate all parts of the student’s personal story
- Everyone, but the storyteller, plays a Story Game
- Summarize the student’s story

**REMEMBER!**

- ✓ Assign students to steps 3-6 so the order in which they retell and tell stories changes frequently
- ✓ Use **2-Step Prompting** to help students
  - 1) Ask a question
  - 2) Model what the student should say
- ✓ Make corrections immediately
- ✓ Differentiate targets for each student

## APPENDIX G

## IRB Approval Form

UNIVERSITY  
OF WYOMING

Vice President for Research & Economic Development  
1000 E. University Avenue, Department 3355 • Room 305/308, Old Main • Laramie, WY 82071  
(307) 766-5353 • (307) 766-5320 • fax (307) 766-2608 • [www.uwyo.edu/research](http://www.uwyo.edu/research)

July 15, 2014

**Protocol # 20140715DP00480**

Re: IRB Proposal “ ”

Dear Doug:

The proposal referenced above (received July 10, 2014) qualifies for exempt review and is approved as one that would not involve more than minimal risk to participants. Our exempt review and approval will be reported to the IRB at their next convened meeting September 25, 2014.

Any significant change(s) in the research/project protocol(s) from what was approved must be submitted to the IRB on the Protocol Update Form for review and approval prior to initiating any change. Further information and the form referenced above may be accessed at the “Human Subjects” link on the Office of Research and Economic Development website: <http://www.uwyo.edu/research/human-subjects/index.html>

You may proceed with the project/research and we wish you luck in the endeavor. Please feel free to call me if you have any questions.

Sincerely,

*Ashley Guritza*

Ashley Guritza  
Associate General Counsel, Compliance  
On behalf of the Chairman,  
Institutional Review Board