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Narrative language skills are important for academic and social success. The ability to produce well-formed and coherent spoken narratives has been shown to be highly correlated with proficient reading and writing (Kirby, Spencer, & Chen, 2021; Spencer & Petersen, 2018; Petersen et al., 2020). The importance of narrative abilities for academic performance has led a number of researchers in our profession (e.g., Gillam et al., 2018; Gillam et al., 2023; Spencer &Petersen, 2018; Petersen et. al., 2022) to develop interventions to improve narrative abilities. These studies of narrative language intervention have varied duration, population, and items tested. Few studies have looked at using a clinician created intervention approach that is manageable for any school-based Speech Language Pathologist (SLP) to implement in the time they have available during the school day to impact at-risk students. Fewer studies have looked at the outcomes for at-risk students to increase oral and written language skills to help catch up to high-achieving peers. In this study, we question whether a clinician created narrative intervention using grade-level texts delivered in 2-week vs. 4-week frequency would have the same benefits in improving spoken and written narrative abilities of 3rd- grade at-risk students.

Participants were 16 at-risk 3rd grade students at a local elementary school. Classroom teachers identified students as being at-risk if they received interventions in 2nd grade or if they scored below the proficient level on the Beginning of Grade Reading Test. Pre- and post-intervention assessment measures were obtained for both spoken and written narratives, but the instruction only targeted spoken narrative production. Two groups of four students were seen four times a week for two weeks; the other two groups were seen twice a week for four weeks. All

students received a total of eight intervention sessions. Each intervention session used a novel grade level passage and story prompt and followed the same six steps in the Clinician Created Narrative Intervention (CCNI). The CCNI targeted activating prior knowledge, listening comprehension with the use of graphic organizers, story retell that incorporated scaffolds and feedback, and story generation.

The 2- and 4-week interventions both led to significant gains in total Monitoring Indicators of Scholarly Language (MISL) scores for spoken and written narratives. These results are similar to the findings of previous studies showing that intensive narrative instruction can lead to noticeable gains in narrative performance (e.g., Gillam et al., 2018, Gillam et al., 2023, Hessling &Schuele, 2019; Petersen et al., 2014, Petersen et al., 2022). The improvements in total MISL scores for both the spoken and written narratives did not differ for the 2- and 4-week groups. Significant gains in narrative ability can be attained by high intensity (4-days a week) interventions as short as 2-weeks.

In conclusion, more than 80% of 3rd grade at-risk students showed noticeable gains in their spoken and written narratives after eight 30-minute intervention sessions with the CCNI over two or four weeks. The CCNI targeted the macro- and microstructure elements of stories that are needed for age-appropriate story retell and spontaneous story generation. These findings indicate that clinicians do not need to use a published narrative intervention program to improve their students' narrative abilities. Importantly, SLPs can use the CCNI in Tier 1 and Tier 2 interventions with students who are performing below grade level in reading which allows SLPs to target narratives abilities with at-risk students as well as those on their caseloads. The CCNI could also be tailored to culturally and linguistically diverse students by creating stories that reflect students'

cultural-linguistic background and experiences. Using the CCNI thus will not only improve students' spoken and written narratives, it can also lead to improvements across curriculum.

THE EFFECTIVENESS OF A CLINICIAN-CREATED NARRATIVE INTERVENTION WITH AT-RISK 3RD GRADE STUDENTS' SPOKEN AND WRITTEN NARRATIVES

by

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Approved by

Dr. Alan Kamhi
Committee Chair

DEDICATION

I would like to dedicate this work to my family. Mom and Dad, thank you for being my biggest fans and always believing in me. From the library at Robert Morris to the halls of Blackhawk, you have encouraged my love for life-long learning. To my girls, Maddie and Camryn, you are my inspiration. I strive to be a better person every day for you and want you to see that learning and growing never ends. You are both stronger and more resilient than you know! To my playing partner for life, Mike, all I can say is "everything". Without your unconditional love and unwavering support, I would not be writing this. Thank you.

APPROVAL PAGE

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CHAPTER I: INTRODUCTION

Narrative language skills are important for academic and social success. Narratives can address all components of complex literate language necessary for telling or writing a story. Not only are narrative skills incorporated in the NC Standard Course of Study, but students also use narratives to talk about their day, describe past events, create stories, and provide information about different occasions (NC DPI, 2017; Spencer & Petersen, 2020). Research has demonstrated that using a narrative language curriculum or a structured lesson plan enhances students' ability to retell stories, generate personal stories, produce written narratives, and understand social emotional learning (e.g., Brinton & Fujiki, 2019; Gilliam et al., 2023; Petersen et al., 2022). Recent studies have shown that improving spoken language and narrative skills has a positive impact on reading comprehension. A focus on oral language skills during intervention can lead to significant and lasting improvements in overall reading comprehension (Clarke et al., 2010; LARRC, Jiang, & Logan, 2019; Silverman et al., 2020; Williams et al., 2009). Language-focused instruction has been shown to have a positive impact on standardized measures of reading comprehension. Language-focused instruction concentrates on spoken language with specific emphasis on vocabulary, figurative language, and the production of spoken narratives (Clarke et al., 2010). Improving narration is a pathway for improving reading comprehension (Gillam et al., 2023; Peterson, 1993). Narrative language skills offer a robust way of capturing a complex mix of a child's understanding of stories, use of semantics and syntax, and mastery of high-level language skills.

The ability to produce well-formed and coherent spoken narratives has been shown to be highly correlated with proficient reading and writing (Kirby, Spencer, & Chen, 2021; Spencer & Petersen, 2018; Petersen et al., 2020). The importance of narrative abilities for academic

performance has led a number of researchers in our profession (e.g., Gillam et al., 2018; Hessling & Schuele, 2020; Spencer &Petersen, 2018; Petersen et. al., 2020) to develop interventions to improve narrative abilities. One of the most effective ways to improve narrative skills is using an accurate and reliable intervention. Two popular intervention curriculums are available: the Story Champs program (Spencer & Petersen, 2012) and Supporting Knowledge in Language and Literacy (SKILL) (Gillam, Gillam & Laing, 2018). Students using Story Champs use more complex story grammar when retelling fictional, personal-themed stories and answering questions, show rapid growth on story grammar in their re-tells, improve their retelling skills and increase the frequency of telling their personal story (Spencer et al., 2014; Spencer & Slocum, 2010; Weddle, Spencer, Kajian, & Petersen, 2016). For example, a recent large-scale study by Petersen and colleagues (2022) found that a 14-week intervention with *Story Champs* significantly improved oral and written language outcomes for typically developing and at-risk kindergarten students. Students with language and learning difficulties and students with autism improve narrative proficiency using SKILL (Gillam & Gillam, 2016). SKILL has been used in individual sessions, small group sessions, and during whole class instruction for students with and without disabilities. These students have improved their vocabulary, spoken and written narratives, fictional narratives, self-generated narratives, and comprehension abilities (Gillam et al., 2014; Gillam et al., 2015; Gillam et al., 2018; Gillam et al., 2023).

These studies of narrative language intervention have varied duration, population, and items tested. Few studies have looked at using a clinician created intervention approach that is manageable for any school-based Speech Language Pathologist (SLP) to implement in the time they have available during the school day to impact at-risk students. Fewer studies have looked at the outcomes for at-risk students to increase oral and written language skills to help catch up to high-achieving peers using classroom-based materials. In this study, we question whether a

clinician created narrative intervention using grade-level texts delivered in 2-week vs. 4-week frequency would have the same benefits in improving spoken and written narrative abilities of 3rd-grade at-risk students. A notable advantage of this intensive intervention is that it is easily for school based SLPs to replicate and will follow the "Minimal Intervention Needed for Change (MINC)" approach (Glasgow et al., 2014). Using this approach, the research will focus on targeting meaningful clinically significant improvements as well as statistically significant differences between the treatment groups. The intervention created for this study was derived from two established narrative language programs, the authors of which have published efficacy studies as well as effectiveness studies, proving the impact. The intervention used in this study was created for any clinician to easy replicate, regardless of time or money restraints that sometimes occur in the schools. The intensity that was used for intervention in this study, 8 sessions, was chosen as the minimal number of sessions needed that typically occur during a Multi-Tiered Systems of Support (MTSS) process in the schools while working with at-risk students. The methods of this study were developed to reflect the workload demands of a typical school speech language pathologist using materials that are already available.

CHAPTER II: REVIEW OF THE LITERATURE

Narrative language intervention is a versatile and powerful tool used to teach academic and socially relevant content efficiently and effectively to all students (Spencer & Petersen, 2020). Narrative is the form used to tell a story and is an important aspect of language. It contains specific elements that work together to create interest for not only the author but also the reader. The purpose of this type of language is to recount a personal or fictional experience or to tell a story based on a real or imagined event that will typically entertain the reader. Bliss & McCabe (2012) tells us narrative production is not only a developmentally appropriate tool to increase language production, but also an authentic tool to increase language complexity. The single ability to tell a story involves numerous higher-level language and cognitive skills. A child must have the ability to sequence events, use cohesive ties to connect the events of a story, use appropriate vocabulary and syntax, understand cause-effect relationships, and structure the story in a way for the listener to follow and understand. Norbury, Gemmell, and Paul (2014) state, "Stories have been seen as discourse contexts that involve particular cognitive demands, including mastery of a range of linguistic (lexical, syntactic, and pragmatic) skills, the ability to remember and sequentially organize a set of events, to establish and maintain perspectives of a range of characters, and to use information from both within and outside the text to construct a novel and creative unit of discourse" (p.2). Telling a story involves complex cognitive-linguistic tasks that require the child to use "spatial and temporal knowledge, memory, the identification and description of internal states, perspective-taking, and the ability to coordinate, integrate, and encode a relatively large amount of information" (Norbury et al., 2014, p.2). These language skills are crucial factors when looking at the ultimate goal, reading comprehension. Evidence suggests intervention focused on improving listening comprehension and numerous oral language skills can improve reading

comprehension (Clarke et al., 2010; LARRC, Jiang, & Logan, 2019). Further, there is a strong correlation between listening comprehension and reading comprehension measures that could positively impact the way a diverse population of students are taught (Petersen et al., 2020). An instructional approach, such as spoken narrative language instruction, could improve reading comprehension in students who are at-risk for not meeting grade level expectations. Therefore, narrative language abilities have an impact on a child's social and academic success.

Narrative Language for Social and Academic Success

Narratives are a key component of social communication and the ability to use narrative skills impacts the student's social competence. Typical social language behavior suggests children express feelings, share stories, interact with others, and engage in social conventions of language. Social and behavior problems might arise for students who experience weak narrative language skills if they cannot engage in typical social language behaviors with peers and adults. McCabe and Marshall (2006) found that preschool children with language impairments might use ignoring as a response to peers, are less likely to engage in adjacent play, and tend to verbally address their peers less and rely on adults as conversational partners. School-age children with poor language skills have also been found to have higher levels of withdrawal and lowers levels of likeability and prosocial behaviors. These children "with social difficulties are characterized by withdrawal and poor sociability" (Hart et al., 2004, p. 657). Children who experience difficulty with social conventions might not sit with others during lunch or play with others during recess or free time. They often have trouble asking for help, initiating or maintaining conversation, and engaging in conversation with peers while they share stories. Children who cannot share personal narratives or fictional narratives to tell a story might be left out of group conversations or small gatherings of children as peer acceptance can be related to social skills.

The NC Standard Course of Study guides instruction throughout schools in North Carolina. The reading standards specify that elementary-aged children should be able to comprehend and analyze the structure of texts and recount experiences using effective techniques, well-chosen details, and well-structured event sequences. According to the reading standards for literature, a kindergarten student should retell familiar stories and identify characters, settings, and major events in a story; a second-grade student should recount stories and describe how characters in a story respond to major events and challenges and describe the overall structure of a story; and a third-grade student should recount stories and be able to describe characters in a story and explain how their actions contribute to the sequence of events. According to the NC Standard Course of Study writing standards for English Language Arts, by the end of grade three children must be able to write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and a clear event sequence. Language skills that can be taught in support of the overarching discourse-level standards include asking and answering questions about key details in the text, retelling stories including key details, describing the overall structure of a story, including how the beginning introduces the story and the ending concludes the action. Speaking and Listening standards require children to tell a story or recount an experience with appropriate facts and relevant descriptive details, speaking in complete sentences by third grade. Therefore, narratives are often used to share information and assess learning in the classroom because "as children listen to and tell stories, they create literacy scripts that contribute to reading and writing development" (Gillam and Johnston, 1992, p. 1313).

Narrative skills have shown to be a significant predictor of academic achievement and can help children bridge the gap between oral language and literacy skills, such as writing (Spencer & Petersen, 2018). Griffin and colleagues (2004) assessed discourse ability at age 5 and then assessed

literacy skills at age 8. Thirty-two typically developing children participated in the study, half male and half female with 54% coming from middle class families and 46% coming from working class families. Two types of discourse evaluation occurred: play narration and picture description. Play narration evaluated the child's narrative clauses, textual evaluation, performed evaluation, character states, and plot structure and elaboration. The picture description evaluated descriptive clauses, descriptive information, deixis, and expository discourse structure. They also collected a 100-utterance conversation sample. Later literacy assessments looked at reading comprehension and written narrative skills. Results "suggest that reading comprehension may be supported by an early ability to elaborate on the content and evaluative significance of the information reported in oral discourse. In contrast, written narrative proficiency appears to draw upon an earlier ability to structure and organize discourse, using conventional macrostructures" (Griffin, Hemphill, Camp, & Wolf, 2004, p. 135). The results indicated that success with reading comprehension tasks could be influenced by the child's ability to pay close attention to elaborated details, such as expanding on the information that they report orally through stories. Overall, they found oral discourse skills that included producing text-level macrostructures, providing information, and marking its significance during the preschool years predicted reading and writing skills in the early school years.

Further research has been conducted to determine early predictors of reading and language success. Results from a longitudinal study by Catts, Tomblin, and Zhang (2002) show grammar composite scores in kindergarten were the number four predictor of word recognition in fourth grade and the number two predictor of reading comprehension in second grade. Results also showed grammar composite scores in second grade were the number two predictor of reading comprehension in fourth grade. Grammar is addressed at the micro-level of narrative language.

Focusing on these micro-level skills will help children increase their overall reading comprehension and word recognition skills during the early school years (ESY).

In a 3-year longitudinal study of the language performance of children from poverty, researchers attempted to address the problem of separating children with a specific language impairment (SLI) from low-scoring normal children. In this study by Fazio, Naremore, & Connell (1996), three groups of kindergarten children from impoverished backgrounds were identified after administering the Test of Oral Language Development-2 Primary (TOLD-2P) and the Columbia Mental Maturity Scale (CMMS). They were then given a battery of experimental language measures that included a story-retelling task, a rote auditory-memory task, and an invented-morpheme teaching task. The groups of children were then given the TOLD-2P and experimental tests again 1 and 2 years later. The CMMS was given again at the end of year 3. The results showed "kindergarten story-retelling accurately predicted the need for academic remediation for 87% of the children who experienced academic difficulty in their first years of school" (Fazio, Naremore, & Connell, 1996 p. 619). The story-retelling task included important language-related abilities that impact a child's success in the classroom. These abilities demanded the children "construct a mental representation of the structure and meaning of a given story, and then retrieve that representation in the context of a story framework" (p. 621-622), which would be the macro-structure elements. It also required children to sequence the events of the story together, addressing the cohesive ties and grammar found at the micro-level, or sentence-level of the story, that is needed for the story to make sense.

Narrative language development plays a crucial role in a student's success throughout the elementary school years. Many social and academic skills rely on a student's ability to re-tell stories, create stories, and cohesively relate personal narratives to both peers and adults. The NC

Standard Course of Study includes a heavy influence of narrative-based reading, writing, and speaking skills through the third grade. These same skills are addressed through later elementary and middle school, using those building blocks in the elementary school years to aid in written narratives in middle school and beyond. Aspects of oral narratives predicted later written narrative and reading comprehension success (Griffin et al., 2004). In fact, results from a study by Babayigit, Roulstone, & Wren (2021) "suggest that educational activities designed to promote children's linguistic comprehension and narrative skills may hold the key to supporting an array of intertwined receptive and expressive language skills that underpin effective reading comprehension" (pg. 163).

Typical Development of Narrative Language

Children begin telling stories before their preschool years. Oral narratives are the first to develop and can include retellings of past experiences, fictional stories, or discussion of future events. They will tell personal narratives to recount experiences and they will retell stories or create stories using pictures or books. When considering oral narratives, children as young as 2 years old will tell personal narratives to recount experiences. Children begin with one or two components of the story. Their stories become more complex, but the sequence of events might be out of order (Eisenberg, 1985). Children start to use temporal markers and appear to be competent in temporal ordering of scenes by age 7 (Bento & Befi-Lopes, 2010). They start using simple sentences and will gradually increase their length and complexity of sentences. There are two components of narrative language: macrostructure and microstructure. The macrostructure of a text is the broad outline that includes the story grammar elements. The microstructure of a text is the literate language used at the sentence level.

Macro-level (story grammar, sequence) Structure Aspects of Narrative Language

Macrostructure is comprised of the story grammar elements along with the causal framework that sequences the elements and gives the narrative an internal framework. Stein and Glenn (1975) summarized the seven basic grammatical categories according to Rumelhart (1980) as setting, event, internal response, method, activity consequence. Knowledge of macrostructure in imperative for children to be successful in comprehending and retelling narrative text. Findings from Griffin, Hemphill, Camp, & Wolf (2004), "suggest that control of genre-appropriate macrostructures may be associated with children's ability to adequately represent information within a discourse genre" (p. 137). As children grow through the preschool years (from 3 years of age to 5 years of age), they will use more of each macrostructure in the narrative independently, without help from their mother. Results of a study by Kelly & Bailey (2013) showed; "children moved from relying on maternal prompts for macrostructures to providing the largest proportion of Orientation, Complicating Action, and Evaluation spontaneously" (p.82). As the researchers predicted, the mother's decrease in support of the narrative was reliant on the child's spontaneous use of macrostructure elements in the narrative.

By first grade, children can use the macrostructure as an outline to guide their stories. In a study conducted by Shapiro and Hudson (1991), participants in pre-k and first grade were asked to generate a make-believe narrative using one of two picture booklets. One picture set depicted a problem where the other was just event-based. The results showed first graders created stories that were a higher level of complexity than the pre-k students. Analysis of the stories also showed "children focused more on actions in the event-based versions but developed story characters more with the problem versions" (Shapiro and Hudson, 1991, p. 964). Most first graders and pre-k students gave problem-solution for the problem-based narratives. This tells us that as early as

preschool, children can include characters, problems, and solutions in their narratives and that young children are still developing story schema. First grade stories included temporal sequence marked by temporal connectives and past tense, preschoolers included simple, continuative connectives. “Mastering the art of storytelling involves the ability to coordinate knowledge about events, story structure, and linguistic devices” and although children still required support, “By age 6 children’s grasp of episodic structure and their command of narrative devices for creating cohesion are stronger” (Shapiro and Hudson, 1991, p. 971).

Children typically begin with one- or two-story grammar elements and continue to add elaboration to their stories as the progress from early elementary to late elementary school years. Ukrainetz et. al. (2005) conducted a study and found the following when researching the development of expressive elaboration: “The 5–6-year-olds named the characters in only 20% of their narratives, increasing to 55% of the narratives for the 7–9-year-olds and 82% of the narratives for the 10–12-year-olds” (p.1371). “Evaluations were the ways a narrator imparted emphasis or meaning to a part of the story. The 5–6-year-olds showed a presence of 73%, 7–9-year-olds showed 96%” (p. 1372).

Only 50% of children in kindergarten can retell narratives with well-formed episodes, or the story grammar elements necessary for the internal structure of the story, while mature storytellers will use one or more interrelated episodes. Narratives in older children typically have fewer unresolved problems, less unnecessary detail, markers of a change in time and place, greater character and setting information, more concern for motivation and internal responses, and more episodic structure (Owens, 2020). According to Stein and Glenn (1975), students in third grade added more new information to their re-tell. Third grade students also added a significantly greater amount of consequence and setting statements. Compared to first grade students, third graders

included more internal responses during a delayed recall than during immediate recall. Young children can tell stories, but as the children mature, their stories do as well. Throughout the elementary school years, narratives develop into well-formed, descriptive, and cohesive stories that make sense and follow a logical and sequential pattern.

Micro-Level (sentence-level, syntax/grammar) Structure Aspects of Narrative Language

Microstructure of literate language includes semantics, morphology, and syntax. Narratives include literate language structures such as: coordinating and subordinating conjunctions, adverbs, elaborated noun phrases, metacognitive verbs, metalinguistic verbs, vocabulary in context, complex syntax, causal and temporal words needed for detail, cohesion, and clarity in stories (Gillam et al., 2017; Gillam et al., 2018).

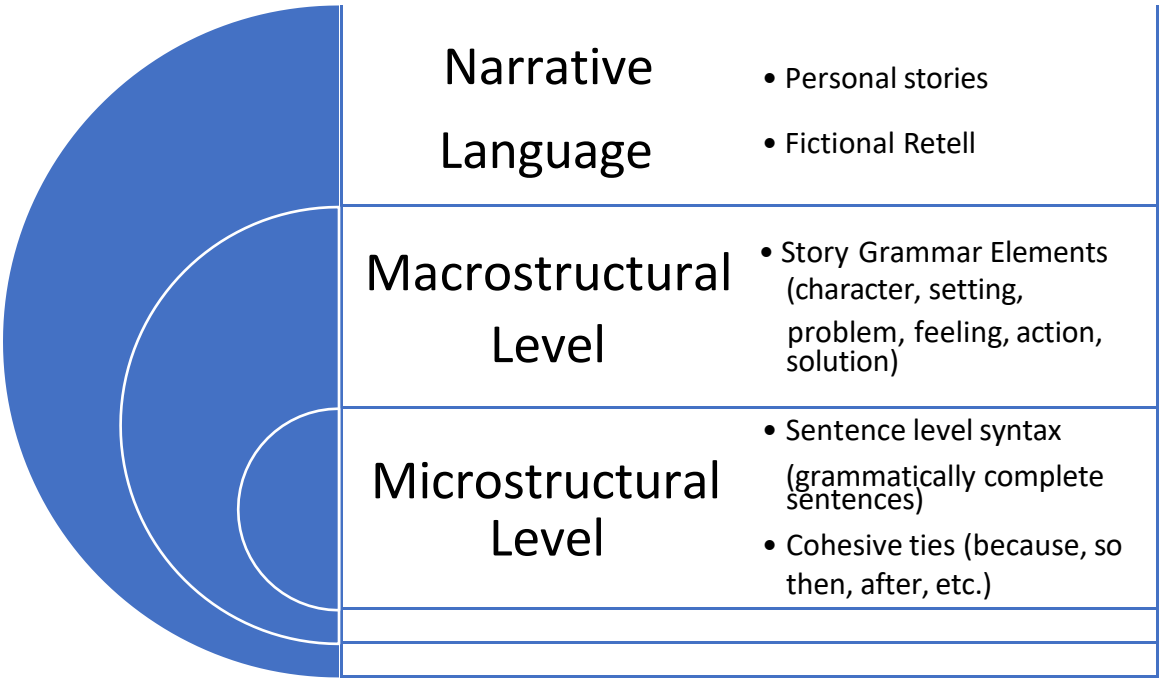
Narrative abilities of school-age children were examined in relation to the type of discourse presented. Sixty children, age 7-10, produced narratives using a series of 15 stories represented by pictures composed of 4 scenes each in a study by Bento and Befi-Lopes (2010). The researchers found the causal discourse was the most dominant type of discourse and the oldest children used the intentional discourse type more than the younger children. As children get older, the use of descriptive type decreases and the intentional type increases. This might be due to the fact that children have more life experience, and they strengthen their argumentative abilities. The narratives are also "more syntactically and episodically complex, adding more information about emotion" as the children get older (Bento & Befi-Lopes, 2010, p. 507).

One of the biggest areas of growth for children is in the area of complex sentences. Children begin to use causal connections in the form of adverb and adjective dependent clauses. These cohesive ties are what brings the story grammar elements together to form the internal structure needed for the audience to enjoy and understand the story. According to Ukrainetz et al. (2005),

the variety of internal state words, such as mad, thought, disappointed, and decided, increased over age. The 5–6-year-old students only provided one or two internal state words, where older groups of students ranging in age from 7-10 frequently used three or more in their narratives.

Microstructural elements continue to be refined in the early school year. In a study by Justice et. al. (2006), the researchers collected data where the children produced narratives in three different ways: with no picture cues to focus on story retelling, with sequenced pictures to focus on story generation, and with a single fictional event picture to focus on story generation. "The present research (a) confirms that narrative microstructure is a multidimensional construct and (b) provides an empirical basis for organizing measures of microstructure into scientifically validated categories" (Justice et al., 2006, p. 184). The results showed a developmental increase in the means on nearly all microstructural measures through age 10, followed by a drop in performance for the two older age groups. Results from this study determined "narrative microstructure peaked with the 10-year-old children, and the performance of the 11- and 12-year-olds looked similar to that of 8- and 9-year-olds" (Justice et al., 2006, p. 186). The productivity and complexity of narrative microstructure shows a developmental increase from 5 to 10 years of age while children are in early elementary school. Micro-structure development is essential for children to move from oral narratives to written narratives as the demands in school grow.

Figure 1. How Narratives Become More Complex During the Elementary School Years



Abilities in narrative language develop and grow over time. The length of the story, the information used in the story, linguistic and structural complexity, and the cohesion of the story all show maturation through the elementary school years.

Changes in a child's narrative through the early elementary years represent the child's awareness of the structure needed for a good story as well as the awareness of the needs of the intended audience. The improvement in oral narratives also increases the complexity and correctness of written narratives. The story grammar and linguistics structures taught for spoken narratives transfers to the written narratives. This will include complex sentences with focus on coordinated conjunctions, subordinating or adverbial conjunctions, and infinitives. According to Brown's stages of language development, the stages of language development identified by Roger Brown in 1973 to help understand and predict typical development, children in the Late IV/Early V stage will use multiple embeddings, meaning conjoined and embedded clauses are present in the same sentence. By Late V and V+, relative clauses along with conjunctions if, when, and so

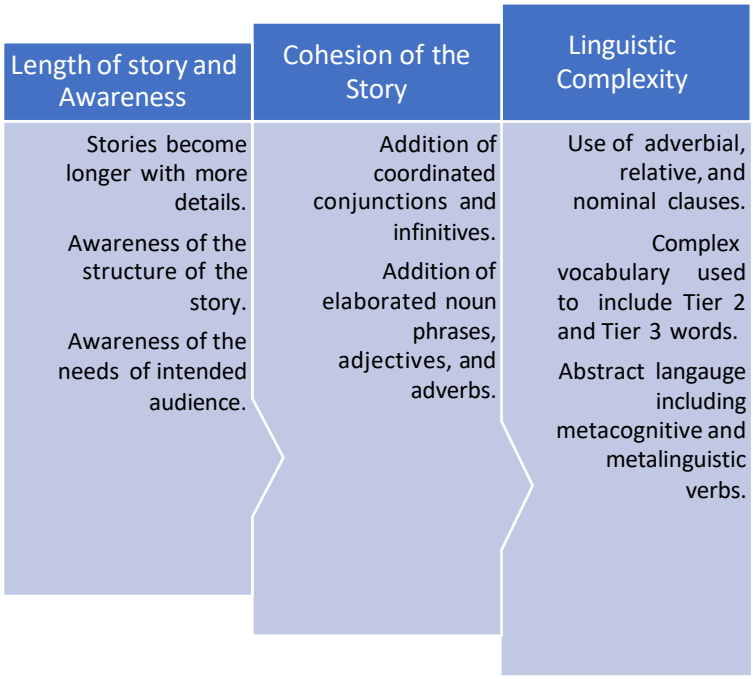
appear. These structures are imperative for clausal compliments, the elements of the narrative that tie the microstructure to the macrostructure (Stein & Glen, 1975). The literate language used in narratives will most times include not only the adverbial, relative, and nominal subordinate clauses, but it will also include elaborated noun phrases, adjectives, adverbs, and dialogue.

Along with syntax, the complex vocabulary that will often contain domain-specific words increases as children develop through the elementary school years and show semantic complexity. Gillam et al., (2014), designed a classroom-based intervention study to determine the impact of a narrative and vocabulary program for children in first grade. Vocabulary was integrated through the narrative language intervention program and included words specific to book concepts, the story grammar elements, internal responses, multiple word classes such as verbs and adjectives, as well as words specific to the stories used in the intervention. The gains made by the children with the embedded vocabulary instruction in the narrative intervention were greater than children in the comparison classroom where vocabulary was taught with the standard curriculum. Through instruction, a child's narrative becomes more complex by increasing the Tier 2 words used to convey meaning and show story cohesion (Beck, McKeown, & Kucan, 2013). Tier 2 words are those vocabulary words that show importance and utility, aid in conceptual understanding, and have instructional potential.

The use of abstract language also plays a part in narrative language. According to Bamberg and Damrad-Frye (1991), more sophisticated and later developing narratives contained more abstract language that included metacognitive (i.e., think, ponder, believe) and metalinguistic (i.e., said, tell, exclaim) verbs. Although abstract language skills, including figurative language and differing verb types, are acquired around the age of 5, the skills are developed through adulthood and are essential for relating the relationships between episodes in a narrative. Hamilton,

O'Halloran, and Cutting (2020), collected narratives developed from a wordless picture book from one-hundred-and-twenty-five 9 to 12-year-old children. The narratives were coded for syntactic, semantic, and discourse-pragmatic features. Results showed older children produced "a higher portion of grammatically complex utterances" and "produced semantically richer narratives" (p. 13). Another interesting determination from this study included the fact that there are individual differences in narrative production that continue through late childhood and are impacted by their own fiction reading experiences.

Figure 2. Changes that Occur in Children's Discourse-Level Language as Opposed to the Sentence-Level During Elementary School Years



Discourse-Level Language

From birth to kindergarten, a child's language develops at a fast pace, working from first words to "the ability to construct and engage in meaningful discourse" (Boudreau, 2008, p.99). A child during the early school years will use connected language to explain stories, create personal

narratives, give explanations, share ideas, and engage in conversation. A form of discourse that is crucial for academic and social success is narrative (Boudreau, 2008). The discourse demands in a school curriculum increases by grade level and those children who have trouble in organization and cohesiveness in their narrative will find it difficult to keep up with academic work, as narratives "are a pervasive and complex form of discourse" (Spencer and Petersen, 2020, p.1083). Griffin and colleagues (2004) assessed discourse ability in preschool children and then assessed literacy skills early in elementary school. "Results suggest that distinct oral discourse competencies at age 5 strongly predict later achievement in writing and reading extended text" (Griffin, Hemphill, Camp, & Wolf, 2004, p. 138). A study conducted by Nelson and Van Meter (2007) determined at the discourse level, "total word productivity was perhaps the most robust measure of developmental growth" (p. 302). Total word counts are easy for teachers, family members, and students alike to understand and use to show growth at the discourse level while producing a narrative. Hamilton, O'Halloran, and Cutting (2020) determined "discourse-level or evaluative features are less subject to age-related change" in the developmental period from 9-12 years old (p. 14). Discourse- level language growth is significant because that is what others hear, comment on, and relate to when communicating with others. Children will be accepted into social settings when they can produce or retell stories. Children will also be more successful in all academic work if the foundational skills of narrative language are mastered.

Sentence-Level Language

Ahmed, Wagner, and Lopez (2014) state, "Although both reading and writing of sentences begin with developing clauses within sentences, little research has been collected to examine the development of reading and writing at the sentence level" (p. 420). There appears to be such a basic understanding of the changes that occur at the sentence level during the elementary school

years, however there is not a lot of research readily available in the area. In a longitudinal study conducted by Ahmed, Wagner, and Lopez (2014), data was collected from children over a four-year period, from first to fourth grade. The researchers collected measures of decoding, sentence reading, oral reading fluency, reading comprehension, spelling, written expression, and writing prompts. They the used latent change score modeling to determine a reading-to-writing model is more adequate to describe growth and show the relationships in reading and writing, compared to a bi-directional model. This study determined "reading exerts a relatively larger influence on writing factors" (pg. 430). Hamilton, O'Halloran, and Cutting (2020) concluded "the use of syntactically complex language and inclusion of narrative detail gradually increases through late childhood" (p. 13-14). The children in the study "who used more mental state terms also produced more syntactically complex and cohesive narratives" (p. 14).

Sentence-level language is measured through the oral and written micro-structural components of narrative language. Studies can be found in the area of sentence-level writing, but not in the specific aspect of oral or written narratives. Further research is needed to better understand the relationship between sentence level language and oral or written narratives.

Academic Success

According to the National Center for Education Statistics (2022), 33% of fourth-grade students nation-wide performed at or above the NAEP Proficient level and 32% of fourth grade students in North Carolina performed at or above the NAEP proficient level on the reading assessment. Data shows the 2022 national average reading score for fourth grade decreased by 5 points compared to 2020. In 2019, the percentage of students performing at or above NAEP proficiency in reading was lower than in 2017. Students are struggling to become proficient readers

during the elementary years. Narrative language skills have been shown in to improve academic success and align with reading standards.

Achievement Gap

Unfortunately, those students who were struggling before the pandemic are now experiencing an even larger achievement gap, especially if they are lower-income students (Bailey et al., 2021). At the start of the pandemic, "returning students are expected to start fall 2020 with approximately 63 to 68% of the learning gains in reading and 37 to 50% of the learning gains in mathematics relative to a typical school year. However, we project that losing ground during the school closures was not universal, with the top third of students potentially making gains in reading" (Kuhfeld et al., 2020). It is easy to understand the difficulty in scores since literacy is one of the most fundamental yet complex concepts of our time. Seidenberg (2017) tells his readers that reading is unique, reading is important, and that reading is a tool for understanding human cognition. He also states, "Reading is interesting. It's complex, it's essential, and there is an urgent need to reduce the number of people who read little or not at all" (Seidenberg 2017, p. 13).

The achievement gap can also be larger for culturally and linguistically diverse students because of language-related difficulties that are often a significant cause of lower academic performance. There are numerous benefits to providing diverse students with explicit instruction in the use and comprehension of literate language through narrative intervention (Petersen & Spencer, 2014). Instruction for students with diverse backgrounds should include materials and texts that draw from their cultural backgrounds and experiences that captures a student's interest to motivate them to actively participate. Increased engagement and student motivation can lead to better outcomes for these students (Cartwright, Marshall, & Wray, 2016).

With a strong focus on phonics being taught in the classroom, why are the scores continuing to trend down, especially for the at-risk students? It is not always a lack of decoding skills that keep students from scoring at or above proficiency on these measures. Most 4th and 8th grade students can read fluently with accuracy, but the focus of these state standardized tests (like the End of Grade Reading Test for 3rd-5th grade) is comprehension. The simple view of reading is that reading comprehension equals the product of decoding plus and linguistic comprehension (Gough & Tunmer, 1986). To be a fluent reader and understand the text, decoding and comprehension are necessary but not sufficient alone. A student must have both skills working together. Without decoding skills, comprehension cannot happen because the student cannot decode or understand the words on the page. Similarly, if the student can easily decode the words but cannot understand linguistic components like vocabulary or syntax, he will not fully comprehend the text. Catts, Adlof, & Weismer (2006) reported results that support the simple view of reading. In addition, they found poor comprehenders in eighth grade had normal phonological processing abilities but poor language comprehension skills. Poor decoders had poor phonological processing skills with normal language comprehension skills. The simple view of reading is the most commonly presented model to explain the science of reading to teachers and other reading professionals to guide instruction. However, reading is not always this simple. Additional factors such as reading fluency, vocabulary, cognitive factors, content knowledge, morphological awareness, motivation and engagement factors, and text level factors, should also be considered (Cabell & Hwang, 2020; Catts, 2018; Burns, Duke &Cartwright, 2023).

Another model that is commonly used to describe reading comprehension is the reading rope. The reading rope by Scarborough (2001) ties language comprehension skills and word recognition skills together to make a skilled reader. This model continues to break each component

into multiple factors that impact one's ability to be called a fluent reader. While this makes it easier to see the skills that are involved for skilled reading, it is in fact not simple.

Looking at Scarbourgh's reading rope, phonics is only one strand. What is typically not understood is how one can measure language and how one can implement intervention in language. Educators need to address language skills at the core before there will be any increase in reading comprehension. Reading comprehension is related to language comprehension. There cannot be focus on just one part of the rope, no matter where the weakness lies for an individual student. When looking at how the strands all tie together, it is easy to see that oral language leads to reading comprehension. Most of the students who are identified as at-risk have more trouble with the upper half of the rope, which includes skills needed for language comprehension. These skills include background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge. Isolating one aspect of the reading rope is not the answer. Oral language leads to reading comprehension. Students who are at-risk have more difficulty with background knowledge, vocabulary, language structures, verbal reasoning, and literacy knowledge. These are all skills that are needed for language comprehension and all skills that can be addressed through narrative language.

There have been many efforts over the last 30-40 years to improve reading proficiency and close the achievement gap to ensure all students are literate and successful in school (Hirsch, 2013; Snow & Uccelli, 2009). For example, a multi-centered effort from the Language And Reading Research Consortium (LARRC) involving the best reading researchers in the U.S. and England tried numerous ways to improve reading proficiency. In 2017, LARRC and Logan found skills in grammar, vocabulary, and higher-level language appeared to be more influential to reading comprehension for the least skilled comprehenders in the third grade. The explicit teaching of

strategies when used in content-rich, meaningful reading environments, can increase the overall knowledge students need to be good comprehenders. A few years later, LARRC, Jiang, & Logan (2019) conducted a multistate randomized control trial using the *Let's Know!* classroom curriculum with preschool through third grade students. *Let's Know!* was used as a supplement to a typical language arts curriculum that provided teachers a systematic and explicit approach to target language skills. The program included vocabulary, inference making, comprehension monitoring, and text structure knowledge. After intervention, all grades showed a positive impact on comprehension, with significant gains in comprehension monitoring and vocabulary. "Language skill may be an important lever of change for improving reading comprehension across the full distribution of reading skill" (LARRC, Jiang, & Logan, 2019, p.2813). A focus on academic language skills to teach text structure, complex syntax, vocabulary, and inferencing can increase a student's performance on reading comprehension.

Language Intervention

Spoken language abilities are the best predictors of comprehension and impact reading in decoding and comprehension achievement. Teaching should include a focus on vocabulary, morphology, and sentence level syntax, but should also include content knowledge and text specific knowledge. Studies have shown students with poor comprehension skills tend to have a deficit in sematic and syntactic processing skills. For example, Catts, Adlof, & Weisemer (2006) found that poor comprehenders scored below the 40th percentile in both receptive vocabulary and grammatical understanding. Nation and Snowling (1998) found that poor comprehenders had weaker vocabulary skills and trouble reading words that were typically read with support from semantics, despite having normal decoding skills. Poor comprehenders showed a significant decrease in performance on a synonym judgment task compared to normal readers. Nation et al.

(2004) reported that poor comprehenders showed deficits in semantics, morphosyntax, and higher-level language skills.

Many studies have determined a focus on overall language skills impacts comprehension (Clarke et al., 2010; Williams et al., 2009; LARRC, Jiang, & Logan, 2019; Silverman et al., 2020), while others show that explicit teaching of certain strategies, or a combination of strategies, improves comprehension (Baker et al., 2020; Reutzel, Smith, and Fawson, 2005; Shanahan et al., 2010). In 2017, LARRC and Logan found skills in grammar, vocabulary, and higher-level language appeared to be more influential to reading comprehension for the least skilled comprehenders in the third grade. "Language skill may be an important lever of change for improving reading comprehension across the full distribution of reading skill" (LARRC, Jiang, & Logan, 2019, p.2813). The explicit teaching of strategies when used in content-rich, meaningful reading environments, can increase the overall knowledge students need to be good comprehenders. If at-risk students can improve their overall language skills, their reading comprehension and scores on reading measures will increase as well. Narrative language can be used to focus on academic language to increase spoken language abilities, and in turn, reading comprehension.

Narrative Language Intervention, Writing, and Reading Comprehension

The academic and social value of narrative language skills in children during the elementary school years is imperative for overall student success. Research has identified narrative language as an appropriate intervention target for school-age children due to the negative consequences for socialization and academic success that might arise from deficits in narrative language (Hart et al., 2004; Hoffman, 2009; McCabe & Marshall, 2006). Oral narratives are considered the bridge between spoken language, formal written language, and reading

comprehension (Babayigit et al., 2021; Gillam et al., 2023; Snow, 1991; Spencer & Petersen, 2018; Suggate et al., 2018). As Spencer & Petersen (2018) found, addressing spoken narratives during intervention can facilitate the understanding of text structure and organized thinking, which facilitates written narratives. Using an integrated approach, along with activities that bridge the gap between spoken and written language during intervention, may contribute to a more comprehensive development of academic language skills. Suggate and colleagues (2018) completed a longitudinal study that followed children from 19 month to 16 years of age. During this 15-year span, measures of maternal vocabulary, early literacy development, vocabulary, oral narrative skills, and reading comprehension were administered to 58 children across 8 time points. It was found that oral narrative skills are meaningfully linked to reading development and oral narrative quality is linked with later reading comprehension. A more recent 9-year prospective longitudinal study completed by Babayigit, Roulstone, and Wren (2021), found that linguistic comprehension and narrative skills made unique contributions to reading comprehension. The findings suggest, "educational activities designed to promote children's linguistic comprehension and narrative skills may hold the key to supporting an array of intertwined receptive and expressive language skills that underpin effective reading comprehension (Babayigit, Roulstone, & Wren, 2021, p.163). Recently, Gillam and colleagues (2023) used mediation analysis to determine if measures of oral narration generalized to measures of written language and if narrative language intervention influenced reading comprehension. In a multi-site randomized controlled study, 357 at-risk students across 7 school districts in grades 1-4 participated in 36 thirty-minute small groups lessons using Supporting Knowledge of Language and Literacy (SKILL) intervention program. Children in the treatment group improved on measures of oral narrative comprehension and productions that had an impact on reading comprehension at poste-test and at follow up 5 months

later. Improving narration is a pathway for improving reading comprehension (Gillam et al., 2023). Narrative language skills offer a robust way of capturing a complex mix of a child's understanding of stories, use of semantics and syntax, and mastery of high-level language skills.

The children who experience delays due to language and learning disabilities, along with those at-risk, can show significant improvement in numerous academic and socially meaningful skills through narrative language interventions. "Research has documented its effectiveness for typically developing children, those who are at risk, children with language disabilities, children with autism, and English language learners" (Spencer & Petersen, 2020, pg. 1091). Narrative language interventions should be a valuable component in every Speech Language Pathologists' therapy toolbox. Boudreau (2008) stated after reviewing intervention research that explicitly teaching narrative skills increased narrative performance for children with language and learning impairments. Brinton and Fujiki (2019) found that using storybooks to focus on story sharing and story enactment activities was beneficial for children with language and learning problems. Intervention showed improved pro-social behavior, expressive language (especially in story narration), and syntax. In order to help children with language and learning problems in the school environment, professionals need "to help them integrate language, conversational, and social-emotional knowledge" (Brinton & Fujiki, 2019, p. 536).

Most recently, a large-scale randomized study used the Story Champs curriculum across 4 districts in 28 different classrooms (Petersen et al., 2022). The narrative language intervention was used in both Tier 1 and Tier 2 interventions in Multi-Tiered Systems of Support (MTSS), meaning it was used for those students identified at-risk who were not already identified with a learning disability or language disorder. The districts that participated in the study already had interventions in place for decoding, but not one classroom had oral language intervention. The researchers

determined, “the school districts that participated in this study already had MTSS models in place for decoding, yet prior to this study, they did not have the tiered interventions of progress minoring tools necessary to focus on oral language” (Petersen et al., 2022, p. 16). Oral language narrative intervention in Tier 1 happened 2 times a week in 15-20 minutes sessions, for 14 weeks. Student received instruction for 28 sessions using 28 different narrative stories. After intervention, there was an increase in all outcome measures that included narrative retell, personal story generation, expository writing, and narrative writing. Overall, there was a causal relationship between the oral language narrative intervention and oral and written language growth. Petersen and colleagues (2022) stated, “results of this study indicated that oral and written language outcomes improved significantly for students identified as having typical language learning skills and for students identified as at-risk” (p. 16). Oral language narrative intervention can impact a student’s oral and written language, resulting in improved reading comprehension skills.

When working on narrative language, professionals need a way to monitor growth and show success with both macro-level and micro-level skills. Gillam et al. (2017) said the Monitoring Indicators of Scholarly Language (MISL) is a progress-monitoring tool that can give speech language pathologists (SLP) information to inform clinical decisions when determining “the nature of narrative intervention needed to support children’s ability to meet the language demands of the classroom curriculum” (p. 104). They determined the total MISL score is “the most valid measure for assessing narrative discourse progress” (p. 105).

Although therapists can implement narrative language intervention with materials that are commonly available to SLPs, there are a few commercially available products that are evidence-based, and research driven. These include Story Champs and Supporting Knowledge of Language and Literacy (SKILL). Petersen and Spencer (2016) reviewed previous studies using Story Champs

and determined "intervention promotes an explicit focus on specific, complex language targets with repeated opportunities for children to listen to and use those targets in a personal-themed narrative context" (p. 15). Students using Story Champs display more complex story grammar when retelling fictional, personal-themed stories and answering questions, show rapid growth on story grammar in their re-tells, improve their retelling skills, and increase the frequency of telling their personal story (Spencer et al., 2014; Spencer & Slocum, 2010; Weddle, Spencer, Kajian, & Petersen, 2016). "This study provides initial evidence that Story Champs intervention, a commercially available standard treatment protocol, leads to at least modest gains in individualized story grammar targets for second-grade children with SLI" (Hessling & Schuele, 2020, p. 701). The researchers determined the boys in the study had improved narrative language abilities due to the increase in story grammar element knowledge. They also found that "children who demonstrate narrative language abilities in the poor range may demonstrate the greatest gains and a more rapid rate of progress from the Story Champs intervention" (Hessling & Schuele, 2020, p. 701).

SKILL is a commercially available narrative language intervention program that uses common children's literature. Gillam et al. (2018) found the SKILL program improved self-generated narratives in children who have a language disorder. The narrative language intervention plan includes three phrases in which narrative is first used as the target. Specific narrative macrostructure elements are explicitly taught and recognized in stories. After children are familiar with the components of narrative, the focus then shifts narrative as the context. Children's books are used to further a student's understanding and use of multiple literate language features. Literate language includes the academic vocabulary needed to access a student's academic environment, along with "metacognitive skills that are important for understanding, evaluating, and composing

coherent, complex stories" (p. 206). The authors also state, "SLPs in schools do not have time to reinvent the wheel and would benefit by having access to curricular materials that have research evidence to support their use." (p. 2010). Recent research suggests SKILL is an effective intervention tool to not only increase oral narrative, but written narratives and reading comprehension as well (Gillam et al., 2023).

Intensity of Intervention

Intensity of language therapy, or the amount and frequency of intervention provided, has been found to have an impact on student success (Frizelle et al., 2021). However, the relationship between intensity of language therapy and student success is complex and depends on various factors. Intervention dosage and frequency is important to everyone involved in the intervention program. There can be a burden on the children, family, SLP, and teachers because of the implications it might have for time and resources. It is crucial to find the right amount of intervention, so it is not more than needed to attain gains or so minimal that time and effort are wasted. Intervention time out of the classroom must be balanced with the amount of class time and classwork the child misses to be sure the intervention benefits outweigh the missed learning opportunities (Brandel & Loeb, 2011).

A current systematic review performed by Frizelle and colleagues (2021) used over 200 articles focusing on oral language interventions in children with Developmental Language Disorder. It was determined that if the number of learning opportunities in the session were high, then the session frequency can be reduced. The review also suggested when looking at composite measures of language, frequent short sessions (2-3 times a week for 2 minutes) and less frequent, long sessions (1 time a week for 20 minutes) were optimal for the best language outcomes (Frizelle et al., 2021). A nation-wide survey conducted by Brandel & Loeb (2011) discovered, "students in

schools predominantly participate in interventions 2-3 times a week in groups outside the classroom" (p.475). Most SLPs believe this is an adequate amount of time for students to make progress. Unfortunately, there are no efficacy studies completed the confirm this claim. Almost 2,000 school-based speech language pathologists completed the survey and the majority of SLPs are influenced by their caseload size and years of practice when making intervention programs and determining intensity (Frizelle et al., 2011). It is important to note that many SLPs are not taking into account the dosage, or opportunities for learning, that occur in each session. Instead, most SLPs focus on the number of times they meet each week to document progress.

There is a paucity of research in treatment intensity, specifically for narrative language intervention. The research for intensity of treatment with at-risk students is even more scarce. Bellon-Harn, Byers, & Lappi (2014) designed a study to determine if 42 sessions across 14 weeks or 24 sessions across 6 weeks impacted the narrative abilities of preschool children with SLI. Although there were significant improvements for all children, there were no difference between groups, indicating microstructure gains in narratives could be found with less intervention time. After a systematic review of the literature on treatment intensity for developmental language disorder (DLD) specifically targeting morphology and vocabulary, Segura-Pujol & Briones-Rojas (2021) concluded "greater treatment intensity does not necessarily result in better treatment outcomes" (p.472). Plante et al. (2019) conducted a study to determine if 15-minute or 30-minute sessions were more effective in treating morphological errors. There was no significant difference between intervention groups, implying therapy time can be reduced and still make significant improvement. Justice (2018) determined it "is not that children should be seen more often when being treated for language disorders, but that treatment sessions need to be as productive as

possible, providing children with high levels of exposure to targeted linguistic forms and functions." (p.323).

Minimal Intervention Needed for Change (MINC) Model

Due to rising healthcare costs and the accessibility for patients in low-income and low-resource areas, Glasgow and colleagues (2014) developed an approach to healthcare that could be more effective, simpler, and less cost prohibitive: Minimal Intervention Needed for Change (MINC). This approach should include components of the following characteristics: intensity, cost and resources needed to implement, theoretical components, and complexity (Glasgow et al., 2014). This systematic approach can be used to develop and adapt interventions that focus on achieving meaningful outcomes within specific contexts.

Translating research to practice is a complex process. The MINC model can be used by speech language pathologists to establish programs that fit the needs of specific settings and/or clients. For example, Curran, Komesidou, and Hogan (2022) used the MINC model in the middle of the pandemic when school-closure should have halted their research project. Instead of stopping the traditional intervention study using the Let's Know! Reading curriculum, the researchers re-designed their approach using the principals of MINC to adapt to the needs of the students, teachers, and new online academic setting. The results suggest, "evidence-based clinical or instructional interventions do not reflect the realities and demands of routine practice" and that other speech language pathologists can use the MINC approach to adapt language interventions to real-world clinical contexts that meet the needs of the clients (Curran et al.,2022, p.327).

Purpose of the Current Research

The ability to produce well-formed and coherent spoken narratives has been shown to be highly correlated with proficient reading and writing (Kirby, Spencer, & Chen, 2021; Spencer &

Petersen, 2018; Petersen et al., 2020). The importance of narrative abilities for academic performance has led a number of researchers in our profession (e.g.,Gillam et al., 2018; Hessling & Schuele, 2020; Spencer &Petersen, 2018; Petersen et. al., 2020) to develop interventions to improve narrative abilities. The purpose of the present study is to compare the effectiveness of 2-week vs. 4-week clinician-created narrative intervention on 3rd grade at-risk students' spoken and written narratives.

Using the MINC approach, this research study will focus on targeting meaningful clinically significant improvements along with the statistically significant impact of intervention and the differencesbetween the treatment groups. The intervention created for this study was derived from two established narrative language programs, the authors of which have published efficacy studies as well as effectiveness studies, proving the impact. The intervention used in this study was created for any clinician to easy replicate, regardless of time or money restraints that sometimes occur in the schools. The intensity that will be used for intervention in this study, 8 sessions, was chosen as the minimal number of sessions needed that typically occur during an MTSS process in the schools while working with at-risk students. The methods of this study were developed to reflect the workload demands of a typical school-based speech language pathologist to have the greatest impact on at-risk students.

The specific research questions are listed below:

1. Is there a significant difference in spoken and written narrative proficiency as measured by the total MISL score after a 2-vs. 4-week narrative intervention?
2. Are there significant improvements in specific macrostructure and microstructure elements in post-intervention spoken and written narratives?

3. To what extent do scaffolds improve story retell and spontaneously generated stories across the 8 intervention sessions?

CHAPTER III: METHODS

Participants

Participants included 16 at-risk (AR) 3rd grade students recruited from a public charter school in High Point North Carolina. Classroom teachers identified students as being at-risk if they received interventions through the MTSS process in 2nd grade or if they scored below the proficient level on the Beginning of Grade Reading Test. Information flyers and consent forms were distributed to parents of identified students by all third-grade classroom teachers. Students were excluded from the study if they were identified as having a language or learning disability through a current Individualized Education Plan (IEP), had a documented hearing impairment, or an identified as an English Language Learner. Inclusion criteria was a score on the Test of Narrative Language (TNL) that fell at or below the standard score of 85. All recruitment, testing, intervention, and assessments were completed at the school during the school day.

Assessment Measures

The Test of Narrative Language was used to determine if a student qualified to participate. Students who scored a total standard score of 85 or lower on the TNL were included in the study. Spontaneously generated spoken and written narrative abilities were assessed before and after the intervention as the pre- and post-intervention measures to determine the impact of the intervention. Students were shown a picture card from the Story Champs Story Starter Card pack and asked to make up a story that goes with the picture. One spoken narrative and one written narrative were collected before and after intervention. Each assessment measure was taken using a different story (Table 1) and instructions were given in a standardized manner (see Appendix A for instructions). Spoken narratives were recorded and later transcribed. Written narratives were collected on notebook paper.

Table 1. Rotation of Picture Cards for Pre- and Post-Intervention Assessments

Group 1 (2weeks)	Group 2 (2 weeks)	Group 3 (4 weeks)	Group 4 (4 weeks)
Pre-Intervention Spoken Picture A	Pre-Intervention Spoken Picture B	Pre-Intervention Spoken Picture C	Pre-Intervention Spoken Picture D
Pre-Intervention Written Picture B	Pre-Intervention Written Picture A	Pre-Intervention Written Picture D	Pre-Intervention Written Picture C
Post-Intervention Spoken Picture C	Post-Intervention Spoken Picture D	Post-Intervention Spoken Picture A	Post-Intervention Spoken Picture B
Post-Intervention Written Picture D	Post-Intervention Written Picture C	Post-Intervention Written Picture B	Post-Intervention Written Picture A

Narratives were scored using the Monitoring Indicators of Scholarly Language (MISL) (Gillam & Gillam, 2010). The MISL is a progress monitoring tool that has been used to track growth in narrative language proficiency (Gilliam et al., 2017). Using the total MISL score is considered to be the best measure when assessing narrative discourse progress (Gilliam et al., 2017). The MISL uses a 0–3-point rating scale for macrostructure and microstructure elements of a child's narrative. Story grammar elements (macrostructure) include character, setting, initiating event, internal response, plan, action/attempt, and consequence. The literate language elements (microstructure) include coordinating conjunctions, subordinating conjunctions, mental verbs, linguistic verbs, adverbs, elaborated noun phrases, and grammaticality. Total macrostructure score, total microstructure score, and total MISL score were calculated for each narrative assessment.

Narrative Instruction

For the narrative instruction, each treatment group received eight 30-minute intervention sessions and every student received the same intervention. Half of the students (8) received a clinician-created narrative intervention for 30 minutes/session, four times a week over two weeks in two groups of four students; the other half (8) received the narrative intervention for 30 minutes/sessions, two times a week over four weeks in two groups of four students(Table 2). Only spoken language was addressed in intervention sessions.

Table 2. Breakdown of Intervention Groups

Group 1 (4 students)	Group 2 (4 students)	Group 3 (4 students)	Group 4 (4 students)
4 sessions/week 2 weeks	4 sessions/week 2 weeks	2 sessions/week 4 weeks	2 sessions/week 4 weeks

The Clinician Created Narrative Intervention (CCNI)

The CCNI was adapted from established narrative intervention programs, including Story Champs and SKILL. It also followed the 10 principle-driven narrative intervention guidelines outlined by Spencer & Petersen (2020). The CCNI was based on grade level expectations using passages from Readworks.org. Readworks passages are frequently used by classroom teachers for English Language Arts and school-based SLPs who use curriculum-based instruction for students on their caseloads. A novel grade level reading passage, along with background questions and story prompts related to the reading passage, was used each session (Appendix B). Story retell

activities were used as the teaching component during each session. Data was collected for the story retell activity and the story generation prompt each session. A scale of 0-2 was used to score the presence of each element (0=did not identify, 1=identified with scaffolds, 2= identified without scaffold). Scaffolds were verbal or visual prompts. The scores for each element were averaged so that each student had one score for story retell and one score for story generation each session. Every session was audio recorded and data was collected on individual data sheets for each student. The CCNI included six steps.

1. Prior Knowledge Questions: Before reading, students engaged in discussion and answered a series of questions that activated prior knowledge about the subject of the passage.

2. Passage Reading: The clinician read the passage aloud to each group. Each student had a copy of the passage in front of them and were encouraged to follow along while listening.

3. Modeling and Teaching: The clinician used the "I do, We do, You do" gradual release of responsibility instructional framework (Fisher & Frey, 2014), incorporating think alouds and verbal/visual prompts to scaffold student learning. Students collaboratively completed a graphic organizer to identify story grammar elements (e.g., Stahl, 2004) and the conjunctions they needed use to link the story grammar elements.

4. Story Retell: Each student used the graphic organizer to retell the story. Order of student retells were rotated during the week because going first is a disadvantage whereas going last is best. The clinician modeled how to retell a story during the first two sessions. The group worked collaboratively to create story retells during the third and fourth sessions as needed with the goal that students would independently retell stories by the end of the intervention sessions.

5. Feedback: Feedback about the story retell was provided as needed from the clinician and from peers. Verbal and visual scaffolds were used if the student did not include an element of the story.

6. Story Generation: Using the clinician-created prompt, each student told a story related to the topic of the passage. A blank graphic organizer was present, and students received verbal/visual cues as needed when telling their story.

Procedures

After obtaining signed consent forms from parents, students were administered the TNL to determine eligibility for the study. Students were then individually administered the pre-intervention assessment measure. The participants were randomly assigned to one of four groups of students. Each group for intervention contained four students for the eight-session intervention program. All participants received the same intervention over the course of eight 30-minute sessions using the CCNI. The structure of each session followed the six steps outlined for this intervention using a novel Readworks passage for each session. Post-intervention assessment measures occurred individually one week after the last intervention session. For the pre-intervention and post-intervention assessments, students were shown two pictures and asked to provide one spoken and one written story based on the pictures. Instructions for the story generation during assessments appear in Appendix A.

Reliability

Inter-rater and intra-rater reliabilities were calculated on eight narrative samples. Four pre-intervention assessments and four post-intervention assessments were evaluated. Inter-rater reliability is the agreement between two professionals on how to score individual components. Training in scoring the MISL was provided to a colleague. She is a school based SLP who has

some experience using the MISL to evaluate language samples. Out of the eight MISL rubrics, there were two that were scored differently. The two elements were discussed and resolved. One element remained unchanged in the researcher's data set and the other element was changed to reflect one student's MISL score one point lower than originally scored.

Intra-rater reliability is the consistency of data recorded by one rater over trials. The same eight transcripts were rated by the examiner at assessment and after post-intervention assessments were complete to compare the scores. There was one element on one MISL rubric that was scored differently. This element changed the total MISL score for one student and was reflected in the full data set.

Data Analysis

The first research question was to determine if there was a significant difference in spoken and written narrative proficiency as measured by the total MISL score after a 2-vs. 4-week narrative intervention. Two 2 (pre/post intervention) by 2 (treatment duration) mixed analysis of variance (ANOVA) were run to compare pre- and post-intervention assessment scores for spoken and written narratives. The ANOVAs were run to determine if there was a difference in the spoken and written narratives after intervention and if duration of treatment impacted outcomes. There were two main effects, time (pre- and post-intervention assessments) and duration (2-wk vs. 4-wk groups) and one interaction (treatment effect). Means and SDs were calculated for pre- and post-intervention spoken and written narratives.

To answer the second research question, paired sample t-tests were run to determine if there were significant improvements in specific macrostructure and microstructure elements in post-intervention spoken and written narratives (e.g., internal response, plan, coordinating conjunctions, subordinating conjunctions).

A third analyses was conducted to determine the extent scaffolds improved story retell and story generation across the eight intervention sessions. Data was collected for story retell and story generation each session. The scores for each element were averaged to have one score for each student's story retell and one score for story generation each session. These intervention scores were then compared to the improvement made in post-intervention MISL scores for each student.

CHAPTER IV: RESULTS

The first analyses examined whether or not there was a difference in the spoken and written narratives after intervention and whether duration of the intervention (2-week vs 4-week) made an impact in results. As can be seen in Table 3, Table 4, and Figure 3, spoken narrative MISL scores significantly improved after the 2 and 4-week interventions [F (1, 15) = 25.95, $p < .05$], Partial Eta = .65. The effect size was moderate. A 2 (pre/post intervention) x 2 (treatment duration) mixed analysis of variance (ANOVA) found there was no significant difference for duration of treatment [F (1,15) = 2.44, $p > .05$]; the interaction between intervention and duration was also not significant [F (1, 15) = .36, $p > .05$]. The findings were similar for the written narratives (Table 5, Table 6, Figure 4). Total written narrative MISL scores significantly improved after the 2- and 4-week interventions [F (1, 15) = 40.78, $p < .05$], Partial Eta = .75. The effect size was large. There was no significant difference for duration of treatment [F (1, 15) = 3.54, $p > .05$] and the interaction between intervention and duration was not significant [F (1, 15) = .59, $p > .05$].

Table 3. Means and SD for Spoken MISL Scores

	Mean	**SD**		**Mean**	**SD**
Pre-Intervention Spoken			**Post-Intervention Spoken**		
2-week group	14.75	3.77	**2-week group**	21.88	5.41
4-week group	12.50	4.11	**4-week group**	18.13	4.88
Total	13.63	3.98	**Total**	20.00	5.34

Table 4. ANOVA for Spoken Narrative MISL Scores and Treatment Effect

Effect	Mean Square	df	F	Sig.	Partial Eta Squared
Time (pre/post intervention)	325.13	1	25.95	<.001	.65
Duration (2wk vs 4wk group)	72.00	1	2.44	.14	.15
Time*Duration	4.5	1	.36	.56	.03

Figure 3. Spoken Narratives

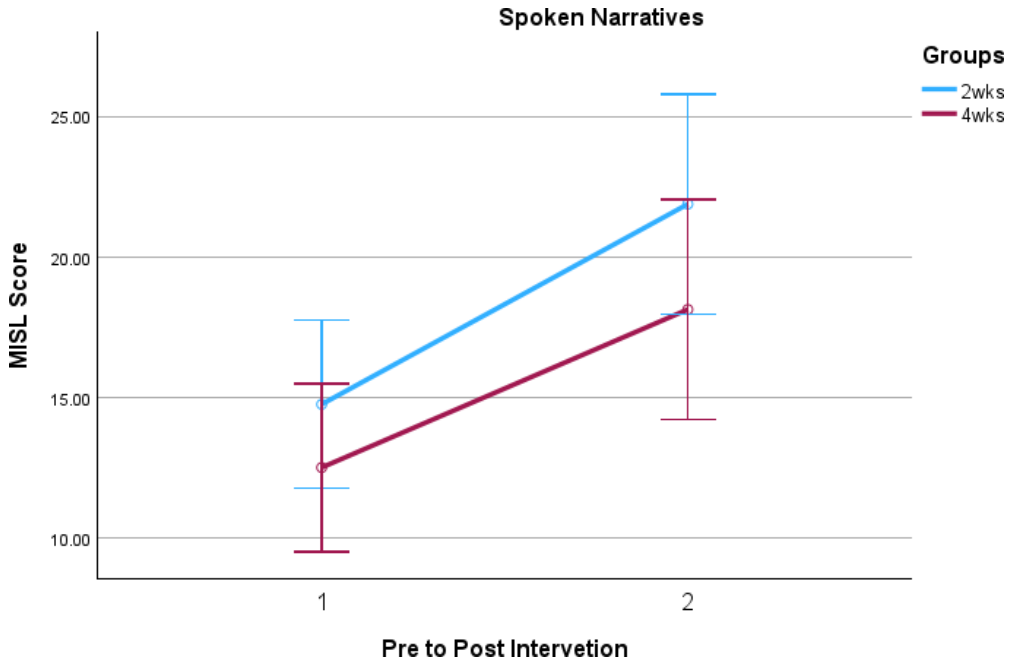


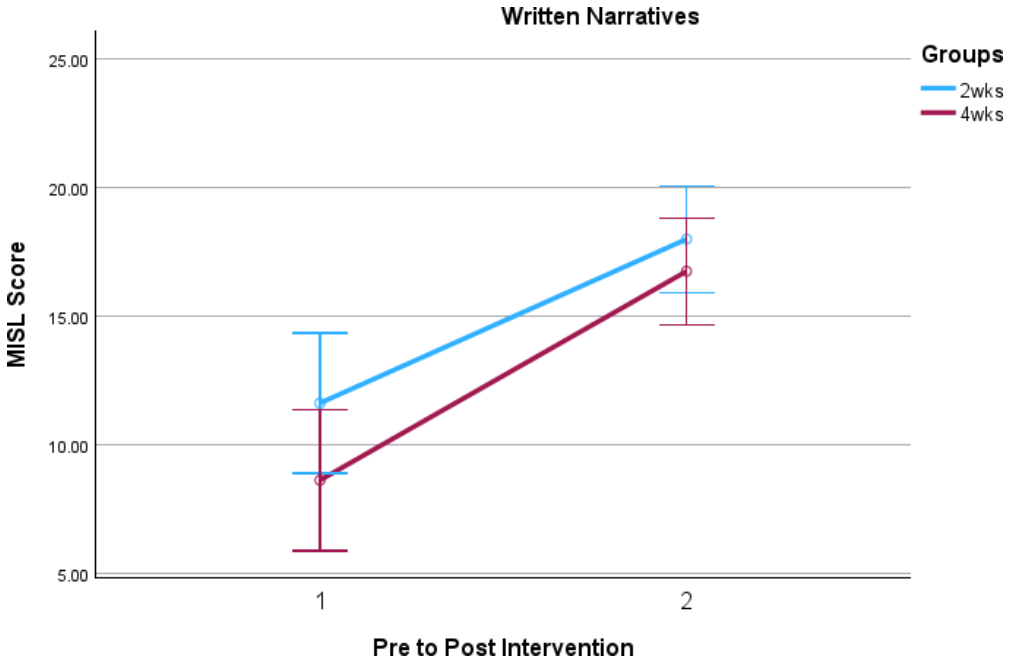
Table 5. Means and SD for Written MISL Scores

	Mean	SD		Mean	SD
Pre-Intervention Written			**Post-Intervention Written**		
2-week group	11.63	3.34	**2-week group**	18.00	3.34
4-week group	8.63	3.85	**4-week group**	16.75	1.98
Total	10.13	3.81	**Total**	17.38	2.73

Table 6. ANOVA for Written Narrative MISL Scores and Treatment Effect

Effect	Mean Square	df	F	Sig.	Partial Eta Squared
Time (pre/post intervention)	420.50	1	40.78	<.001	.75
Duration (2wk vs 4wk group)	36.13	1	3.54	.08	.20
Time*Duration	6.13	1	.59	.45	.04

Figure 4. Written Narratives



Although the interaction between intervention and duration was not significant, as can be seen in Figure 1, the 2-week group had slightly higher MISL scores for spoken narratives than the 4-week group before intervention and made slightly more improvements than the 4-week group (7.13/5.6) after intervention. The pattern was reversed for the written narratives (Figure 2). The 2-week group still began with slightly higher scores before intervention, but the 4-week group made slightly more improvement (8.1/6.3) than the 2-week group after intervention.

The next series of analyses examined which macrostructure and microstructure elements contributed to the significant improvement in MISL scores. Because duration was not significant, data from the 2- and 4-week groups were combined for analyses. We expected the macro- and microstructure elements targeted in intervention would be the ones that showed improvement. The elements targeted during intervention that significantly improved in the spoken narratives were initiating event, action, consequence, subordinating conjunctions (Tables 7 and 8). The ones that

did not improve were character, setting, internal response, plan and coordinating conjunctions. The element not targeted in intervention that significantly improved was grammaticality.

Table 7. Spoken Narrative Macrostructure Elements

		Mean	SD	t	P	Effect Size
Character	Pre	1.31	.60	.37	.718	.09
	Post	1.25	.58			
Setting	Pre	.31	.48	.62	.544	.16
	Post	.44	.73			
Initiating Event	Pre	1.31	.70	5.84	<.001	1.46
	Post	2.56	.51			
Internal Response	Pre	.50	.82	1.29	.216	.32
	Post	.75	.93			
Plan	Pre	.31	.60	1.25	.232	.31
	Post	.69	1.01			
Action	Pre	1.06	.68	7.65	<.001	1.91
	Post	2.44	.51			
Consequence	Pre	1.19	.54	8.73	<.001	2.18
	Post	2.38	.50			

Initiating event, action, and consequences were the three macrostructure elements that reached significance ($p<.05$) and reached $p<.006$ using Bonferroni correction. Effect size was large for all three elements.

Table 8. Spoken Narrative Microstructure Elements

		Mean	SD	t	p	Effect Size
Coordinating Conjunctions	Pre	1.44	.81	1.10	.289	.28
	Post	1.75	.93			
Subordinating Conjunctions	Pre	.25	.45	3.58	.003	.89
	Post	.81	.75			
Mental Verbs	Pre	.19	.40	1.70	.111	.424
	Post	.56	.89			
Linguistic Verbs	Pre	.38	.62	.76	.456	.19
	Post	.56	.89			
Adverbs	Pre	.31	.60	.32	.751	.081
	Post	.25	.45			
Elaborated Noun Phrases	Pre	1.00	.52	1.46	.164	.37
	Post	1.38	.62			
Grammaticality	Pre	1.38	1.15	2.09	.054	.52
	Post	2.13	.89			
Tense	Pre	2.38	.96	1.57	.138	.39
	Post	2.75	.45			

Subordinating conjunctions (p=.003) and grammaticality (p=.054) were the microstructure elements that reached significance (p<.05). Subordinating conjunctions was the only element that reached significance using Bonferroni correction (p<.006). Effect size was large for subordinating conjunctions and moderate for grammaticality.

The elements targeted during intervention that significantly improved in the written narratives were character, initiating event, plan, action, consequence, and coordinating conjunctions (Tables 9 and 10). The ones that did not improve were setting, internal response, and subordinating conjunctions. The element not targeted in intervention that significantly improved was tense.

Table 9. Written Narrative Macrostructure Elements

		Mean	**SD**	**t**	**P**	**Effect Size**
Character	Pre	1.13	.72	2.42	.029	.61
	Post	1.50	.63			
Setting	Pre	.31	.60	.89	.388	.22
	Post	.56	.89			
Initiating Event	Pre	1.13	.34	8.06	<.001	2.02
	Post	1.94	.25			
Internal Response	Pre	.25	.45	.90	.383	.23
	Post	.44	.96			
Plan	Pre	.06	.25	2.78	.007	.70
	Post	.88	1.09			
Action	Pre	.81	.66	7.27	<.001	1.82

	Post	1.93	.25			
Consequence	Pre	.88	.62	7.41	<.001	1.85
	Post	194	.25			

Character, initiating event, plan, action, and consequences were the three macrostructure elements that reached significance (p<.05). Initiating event, action, and consequence reached significance (p<.006) using Bonferroni correction. Effect size was large for initiating event, action, and consequence. Character and plan had a moderate effect size.

Table 10. Written Narrative Microstructure Elements

		Mean	**SD**	**t**	**p**	**Effect Size**
Coordinating Conjunctions	Pre	1.06	.85	3.10	.007	.78
	Post	1.69	.87			
Subordinating Conjunctions	Pre	.06	.25	1.38	.188	.35
	Post	.25	.45			
Mental Verbs	Pre	.19	.40	1.17	.261	.29
	Post	.44	.73			
Linguistic Verbs	Pre	.31	.60	.72	.485	.18
	Post	.50	.63			
Adverbs	Pre	.00	.00	1.00	.333	.25
	Post	.06	.25			

Elaborated Noun Phrases	Pre	.94	.68	1.58	.136	.39
	Post	1.25	.48			
Grammaticality	Pre	.50	.63	.00	1.00	.00
	Post	.50	.73			
Tense	Pre	2.50	.63	2.61	.020	.65
	Post	2.81	.40			

Coordinating conjunctions and tense were the only two microstructure elements to reach significance ($p<.05$), but no elements reached significance ($p<.006$) using Bonferroni correction. Effect size was large for coordinating conjunctions and moderate for tense.

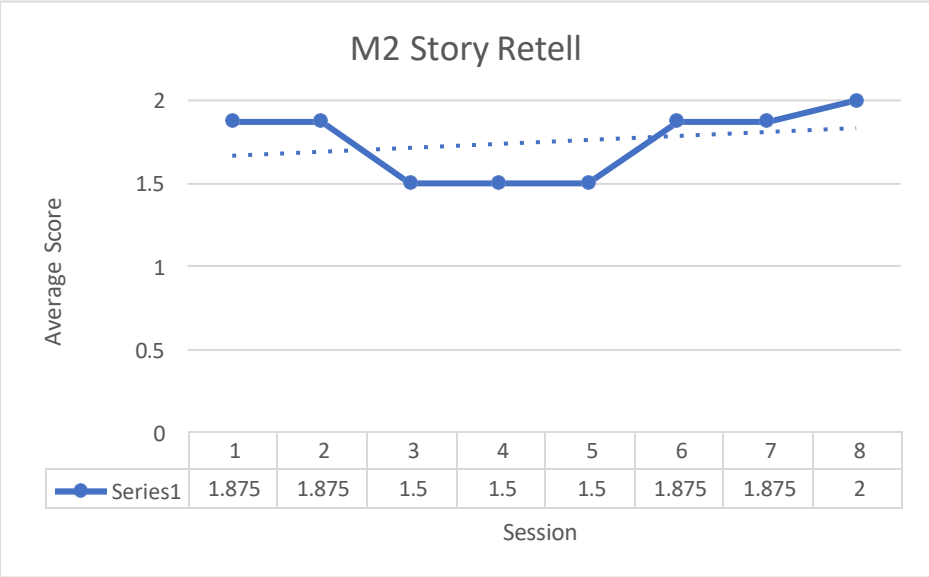
The third analysis examined each students' improvement in targeted macrostructure and microstructure elements over the eight intervention sessions in story retell and story generation. Story retells were used as the teaching component of the CCNI. A noticeable improvement was defined as an increase of at least .50 from the first to the last session. Elements targeted during each session were character, setting, initiating event, internal response, action, consequence, and subordinating/coordinating conjunctions. A scale of 0-2 was used to score the presence of each element (0=did not identify, 1=identified with scaffolds, 2= identified without scaffold). Scaffolds were verbal or visual prompts. Visual prompts utilized the graphic organizer available to facilitate story retell and generation. For example, when a student began a story retell by saying "she was traveling", the verbal prompt was, "who was traveling?" If the student then said, "Eliza was traveling," this was given a score of 1 for character. An example of a visual cue was pointing to the graphic organizer indicating the student omitted this element. Students received a score of 2 if they included the element in their stories without verbal or visual cues. Each targeted element was

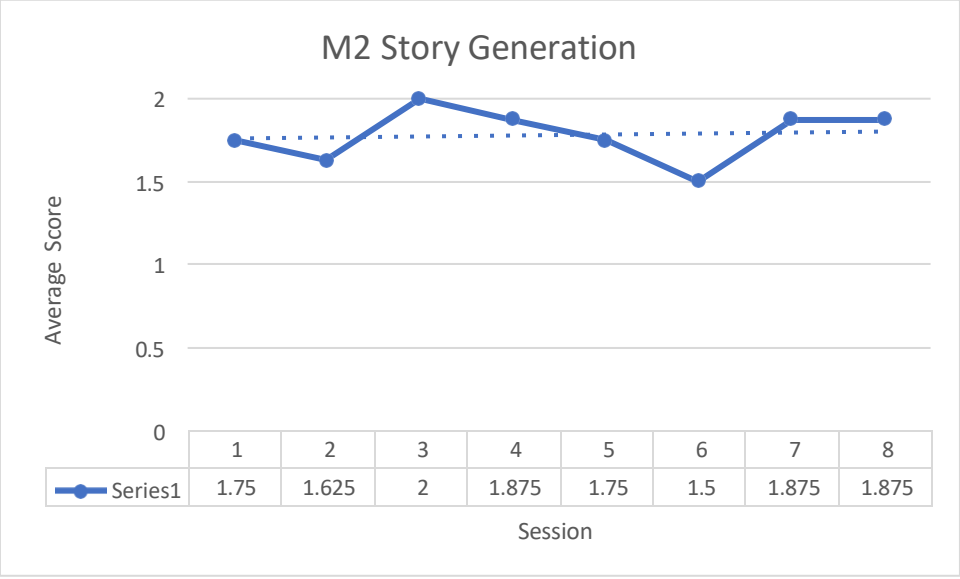
scored and then averaged to have one score for story retell and one score for story generation per intervention session. The MISL was used as the pre- and post-intervention assessment rubric. Improvements in spoken MISL scores were categorized as minimal (2-3 points), average (4-8 points), above average (9-11 points), and substantial (>12 points). These categories were based on the mean improvement of 6.6 with a standard deviation of 4.7. Improvements in written MISL scores were categorized as minimal (3-4 points), average (5-9 points), above average (10-12 points), and substantial (>13 points). These categories were based the mean improvement of 7.3 with a standard deviation of 4.5.

Six students started intervention with a high score for story retells and maintained this score, showing no improvement for story retells over eight sessions. Of these six students, three (M2, K2, and A2) did not show improvement for story generation during intervention. M2 (Figure 5) did not show improvement in his spoken MISL score and showed minimal improvement in his written MISL score. M2 earned pre-intervention spoken MISL score higher than the average but a written score slightly lower than the average (spoken =17, written =9). K2 (Figure 6) showed minimal improvement in her spoken MISL score and no improvement in her written MISL score. She also showed higher than average pre-intervention MISL scores (spoken= 19, written =16). A2 (Figure 7) made above average improvement in her spoken MISL score and substantial improvement in her written MISL score. Her pre-intervention spoken MISL score was average, and her pre-intervention written score was below average. The other three students (K1, S1, and P2) did show improvement in their story generation during intervention. K1 (Figure 8) made substantial improvement in her spoken MISL score and above average improvement in her written MISL score. S1 (Figure 9) made average improvement in both her spoken and written MISL score. P2 (Figure 10) started and ended with a high score for story retell but had a much lower score in

session 4. During this session, he exhibited behaviors that prevented him from performing in his usual manner. The behaviors were out of character and lasted from the minute he was picked up from the classroom until the group started the personal story generation. He did make above average improvement in his spoken MISL score and substantial improvement in his written MISL score.

Figure 5. Intervention Data for Story Retell/Story Generation and MISL Scores for M2





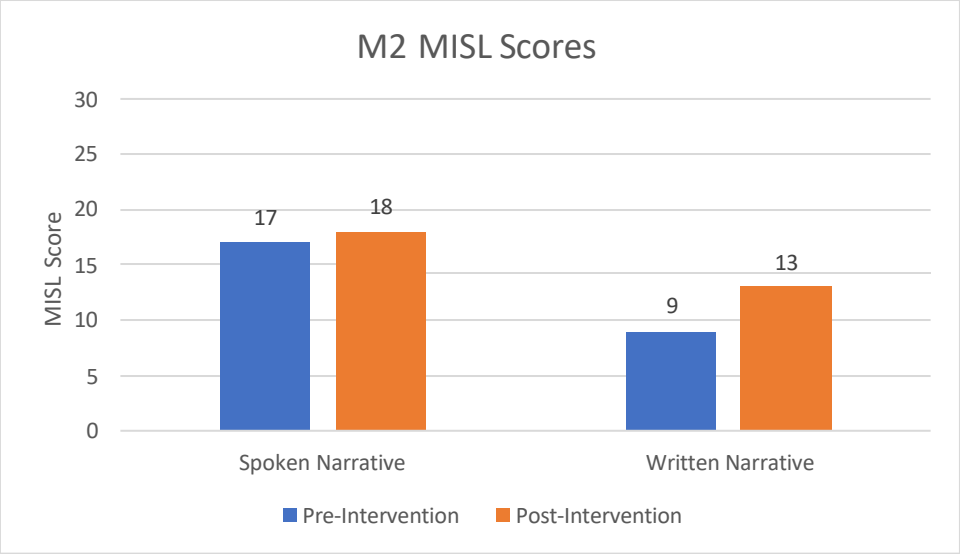
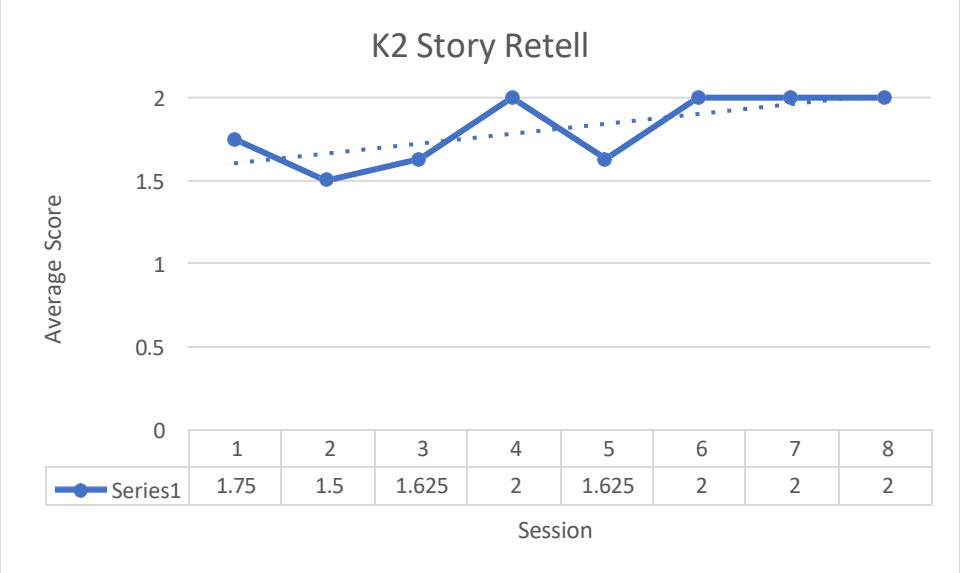
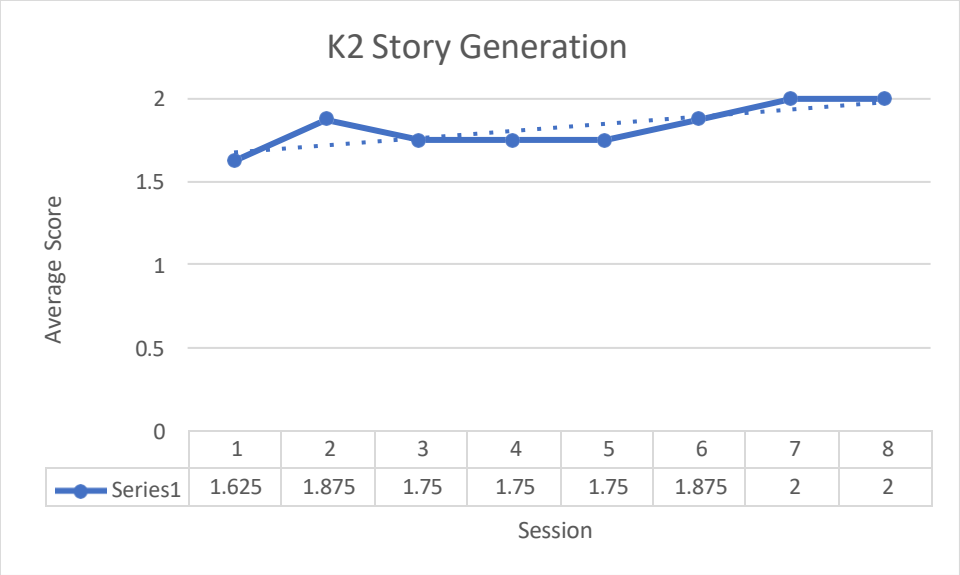


Figure 6. Intervention Data for Story Rell/Story Generation and MISL Scores for K2




K2 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.625 1.875 1.75 1.75 1.75 1.875 2 2
Session

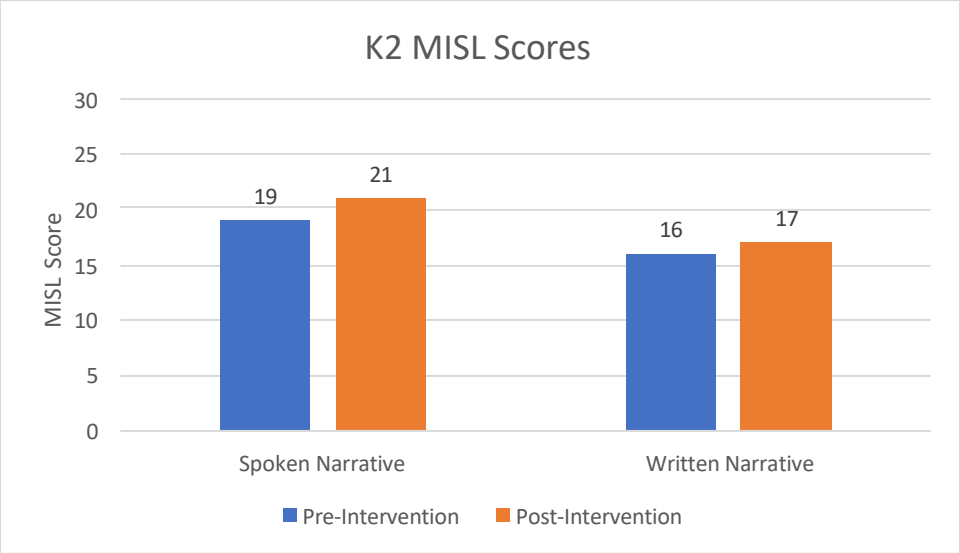
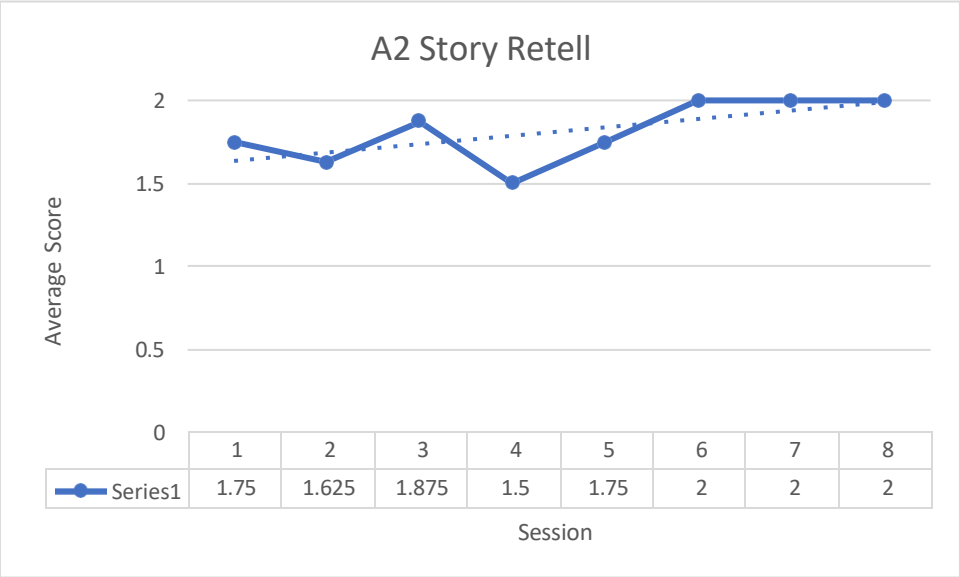
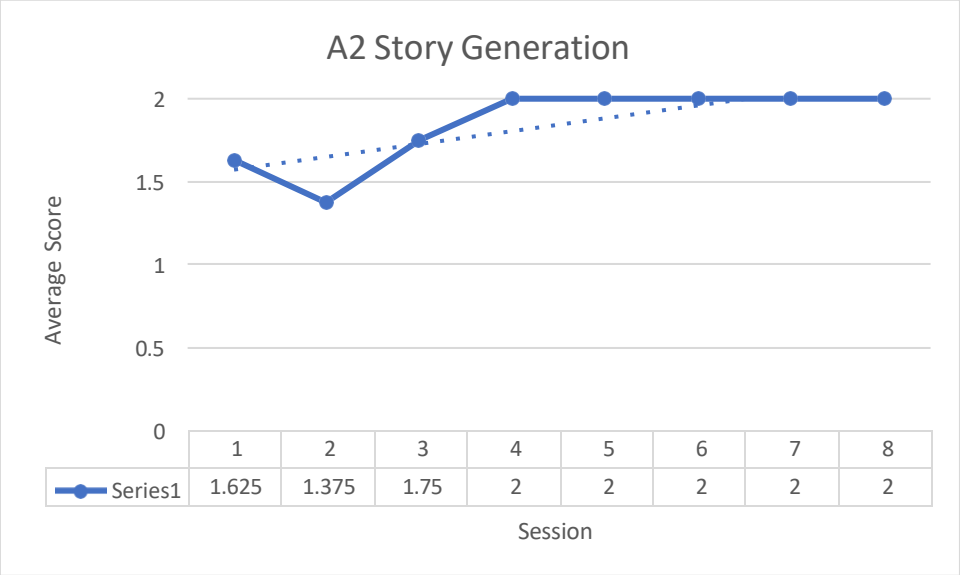

K2 MISL Scores
MISL Score
30
25
20
15
10
5
0
19
21
16
17
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 7. Intervention data for Story Retell/Story Generation and MISL Scores for A2





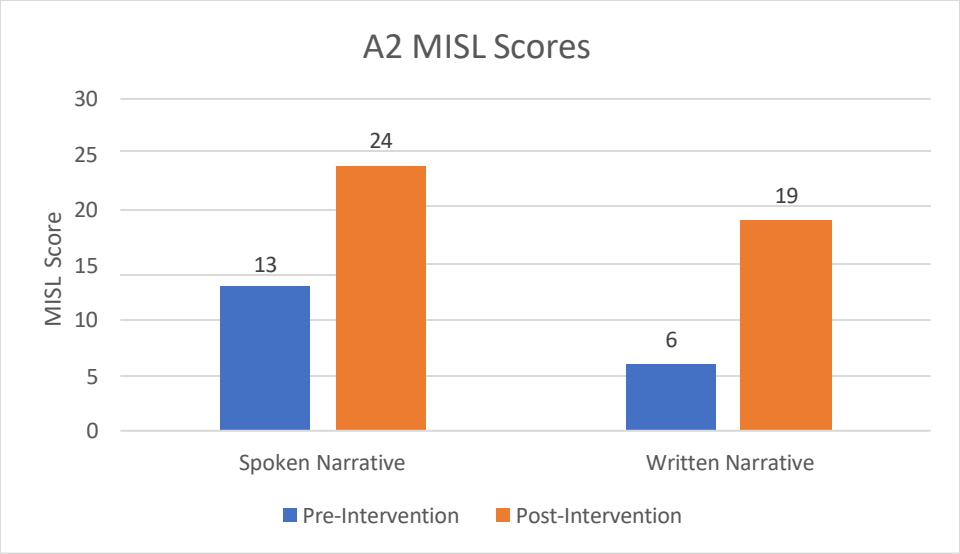
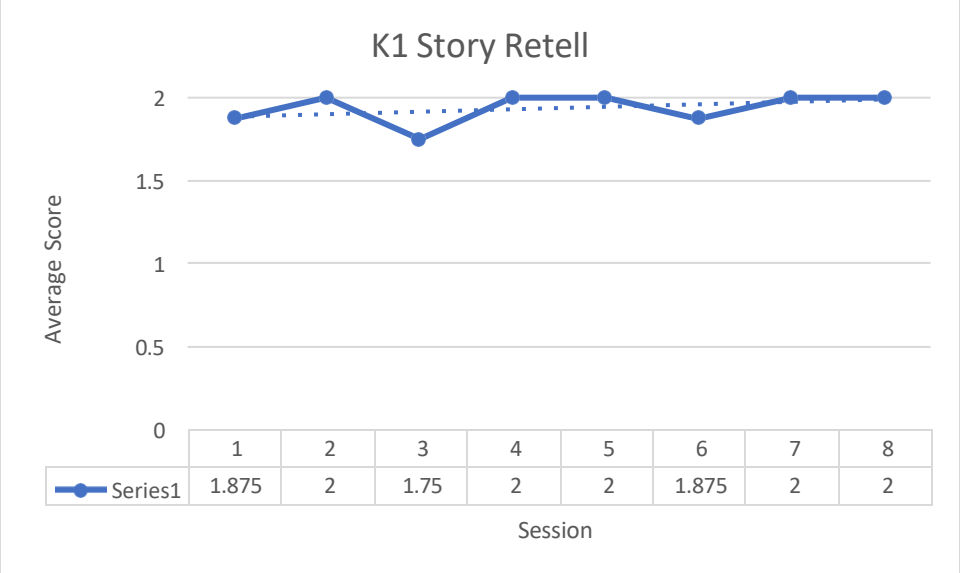
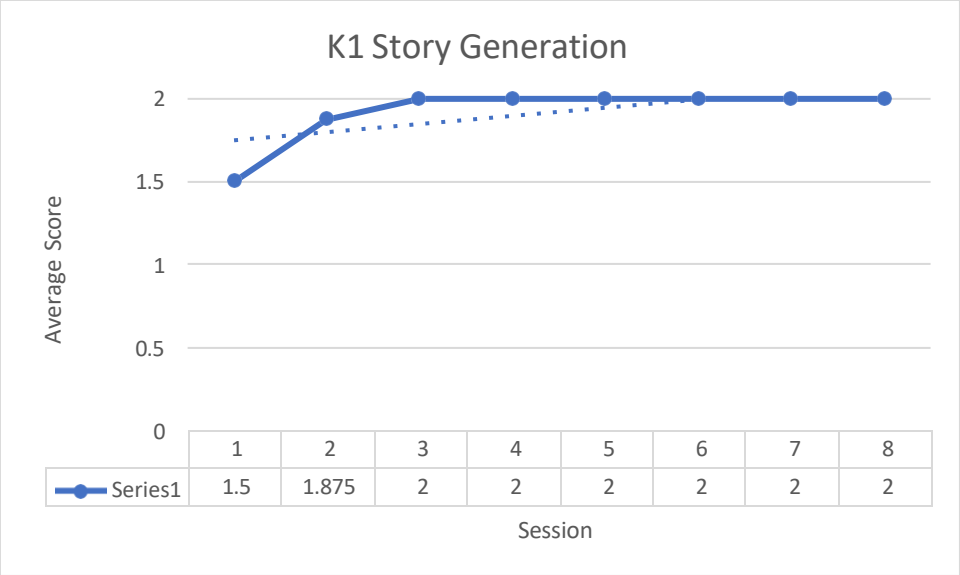


Figure 8. Intervention Data for Story Retell/Story Generation and MISL Scores for K1




K1 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.5 1.875 2 2 2 2 2 2
Session

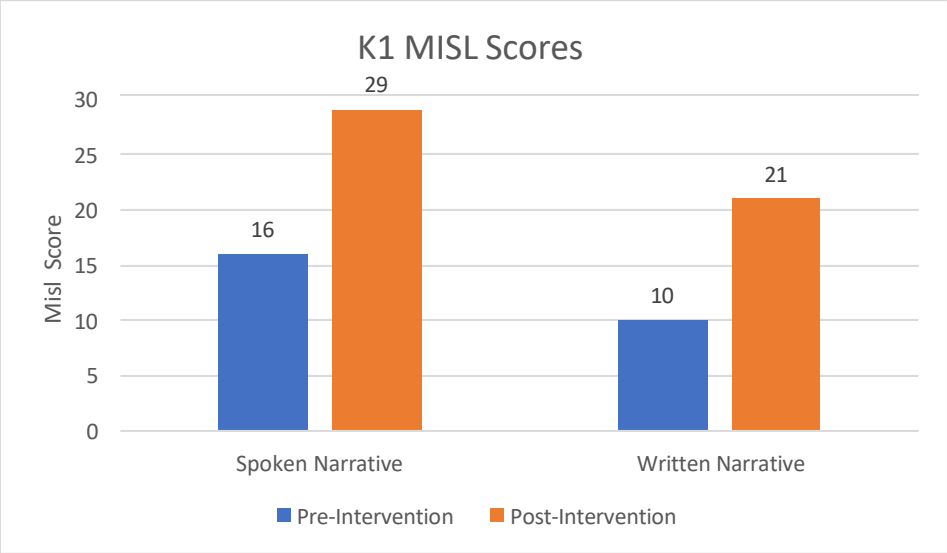
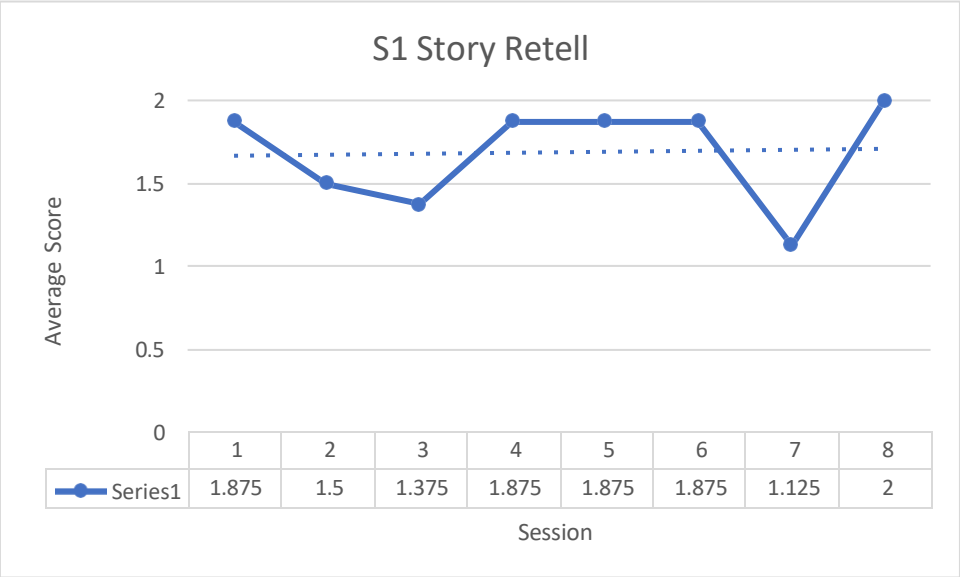
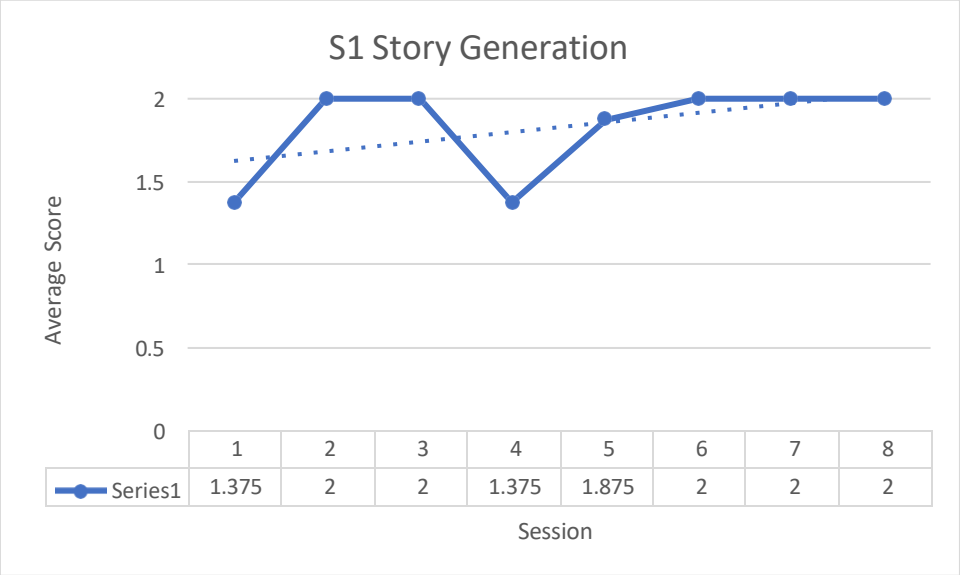

K1 MISL Scores
Misl Score
30
25
20
15
10
5
0
16
29
10
21
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 9. Intervention Data for Story Retell/Story Generation and MISL Scores for S1





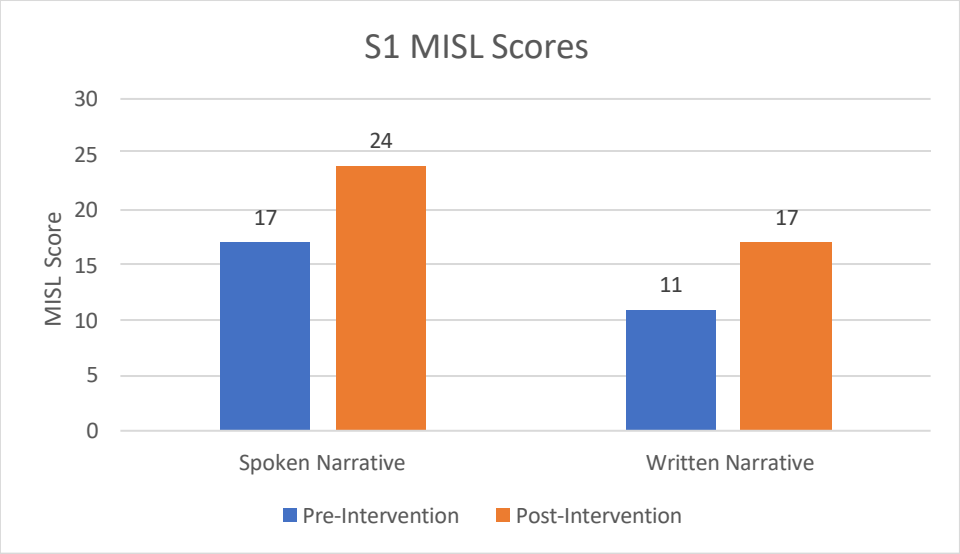
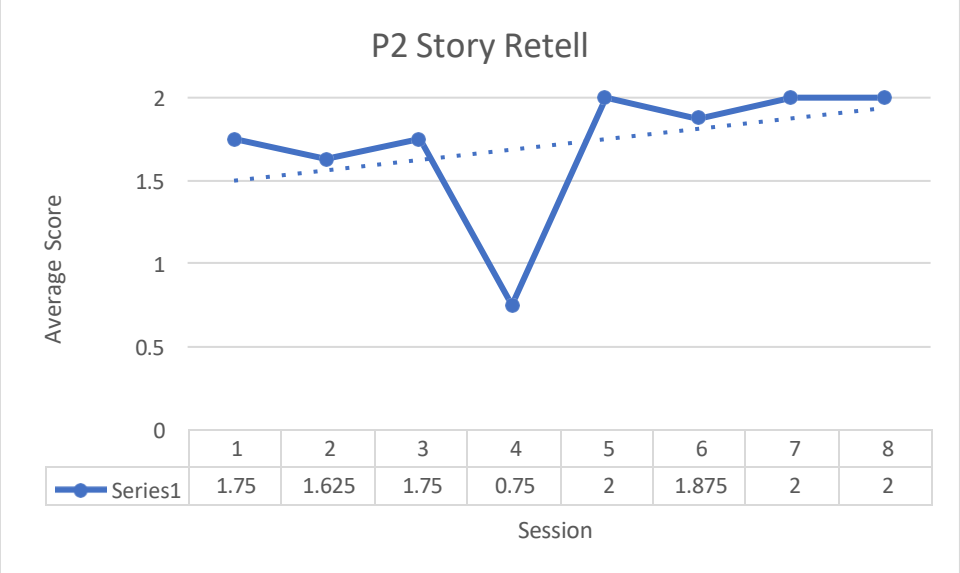
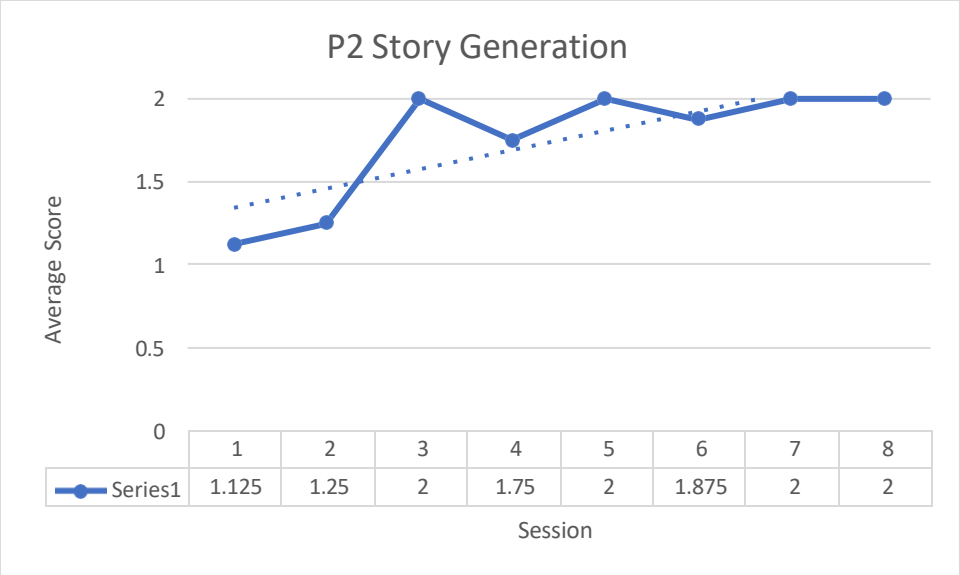
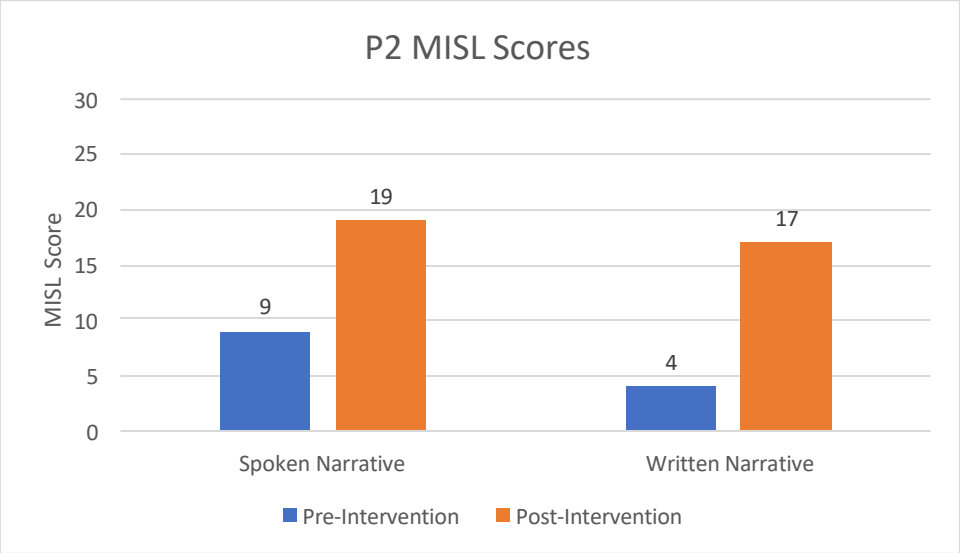


Figure 10. Intervention Data for Story Retell/Story Generation and MISL Scores for P2

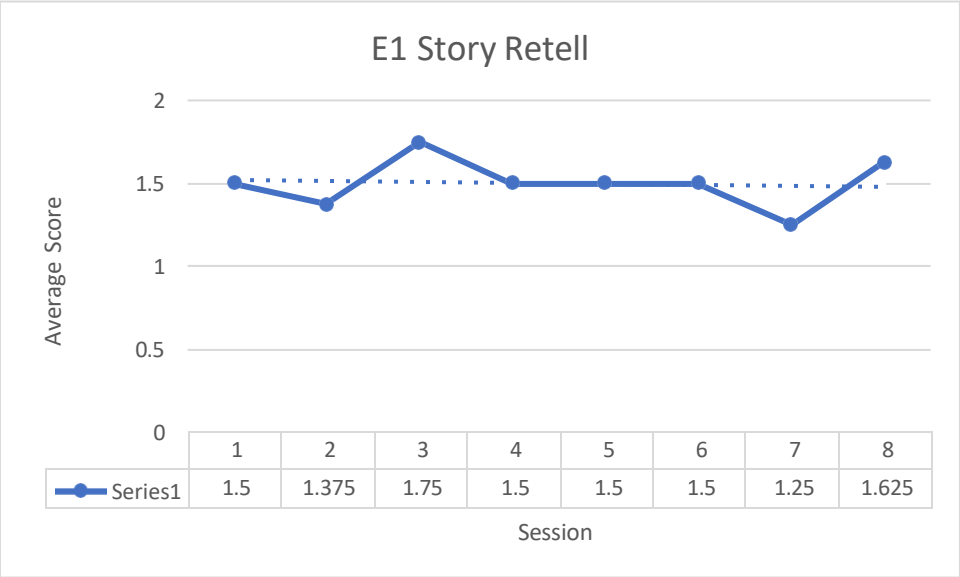


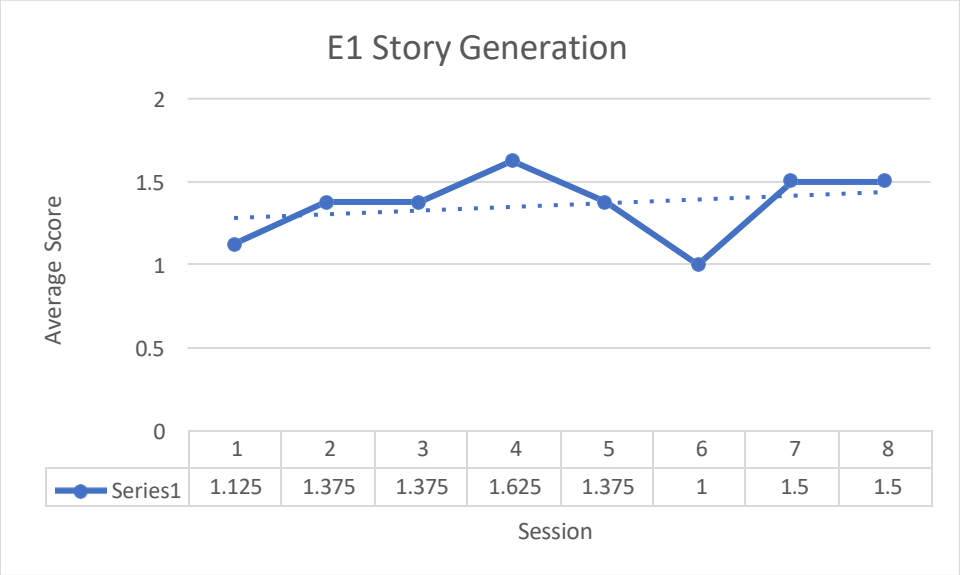




Two students (E1 and B2) made no noticeable change in their story retell scores but did not earn or maintain high scores. Both students required cues to include all targeted elements at least half of the time during intervention. E1 (Figure 11) also had no change in her story generation scores during intervention, her spoken MISL score, or her written MISL score. She did have higher than average pre-intervention MISL scores that were two standard deviations above the mean (spoken score=21, written score=16). B2 (Figure 12) showed improvement in his story generation during intervention and made average improvements in both spoken and written MISL scores.

Figure 11. Intervention Data for Story Retell/Story Generation and MISL Scores for E1





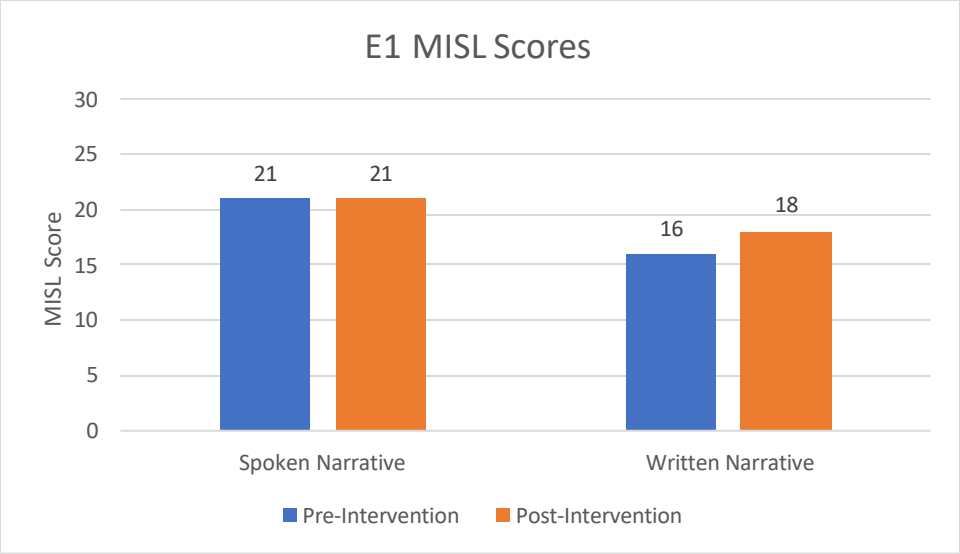
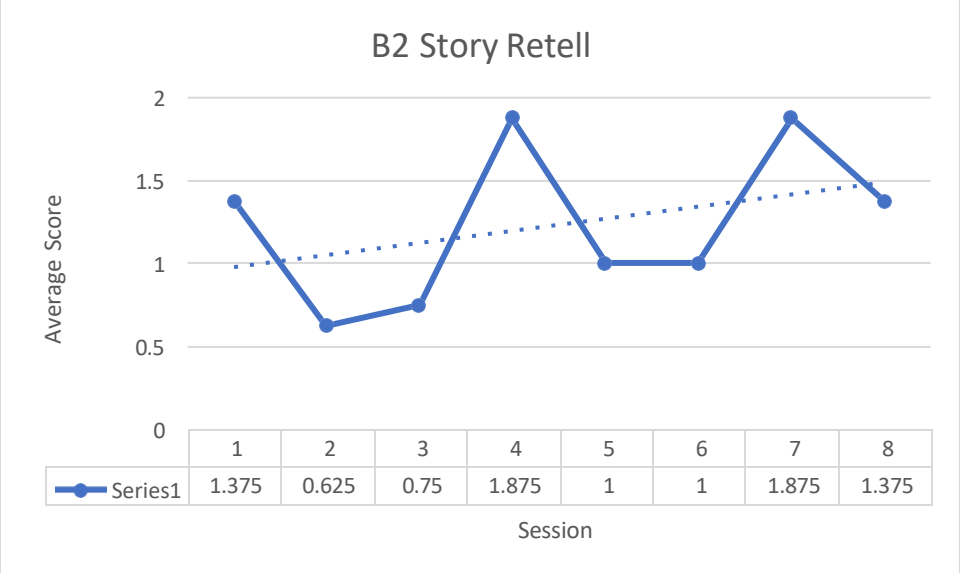
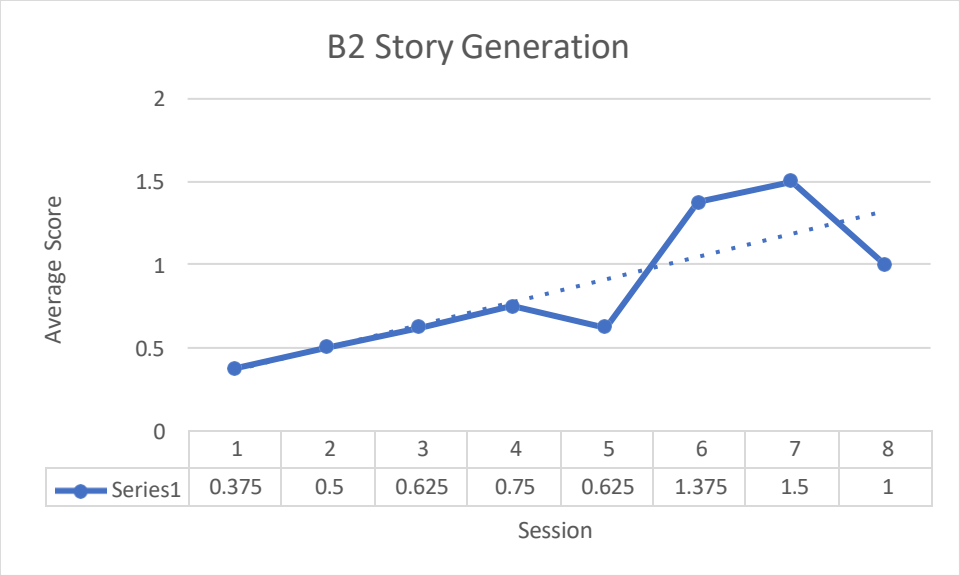
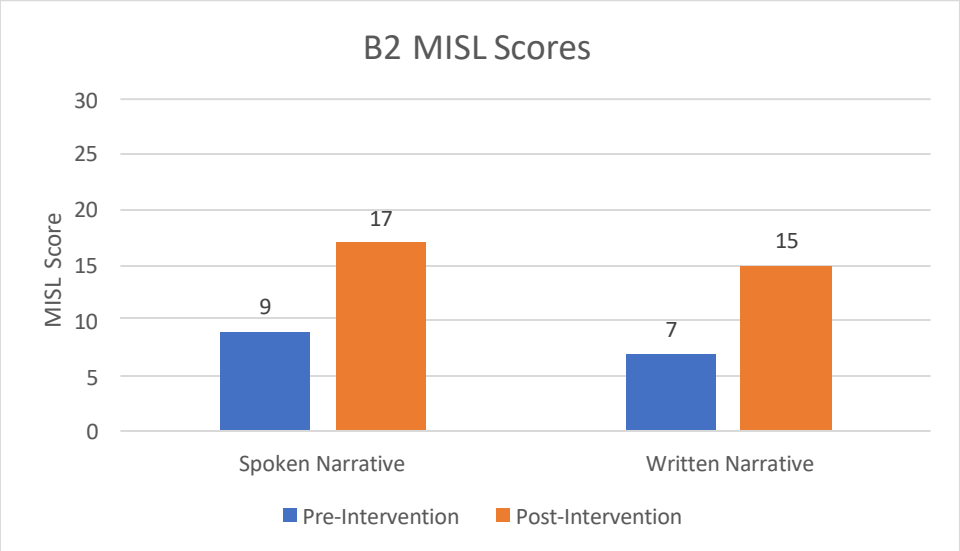


Figure 12. Intervention Data for Story Retell/Story Generation and MISL Scores for B2



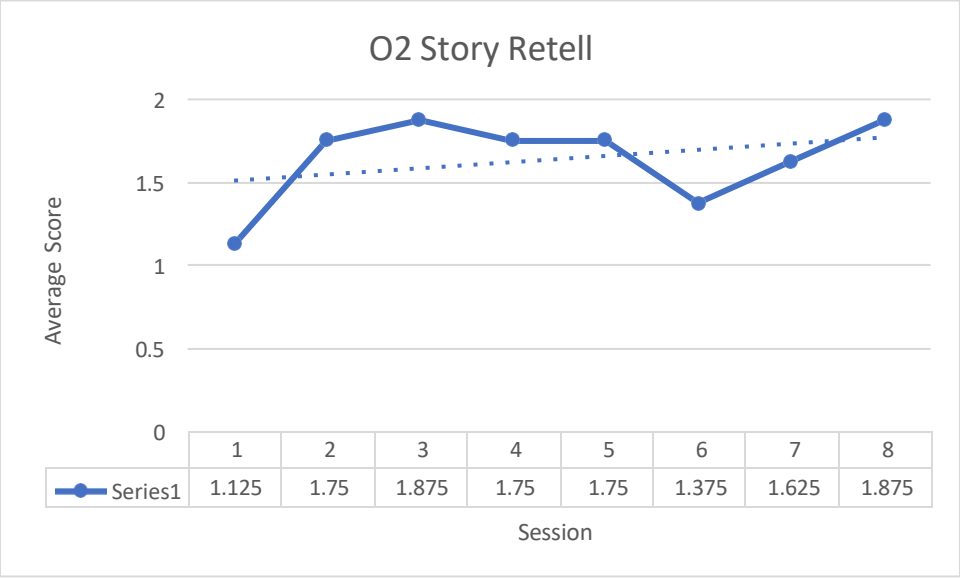


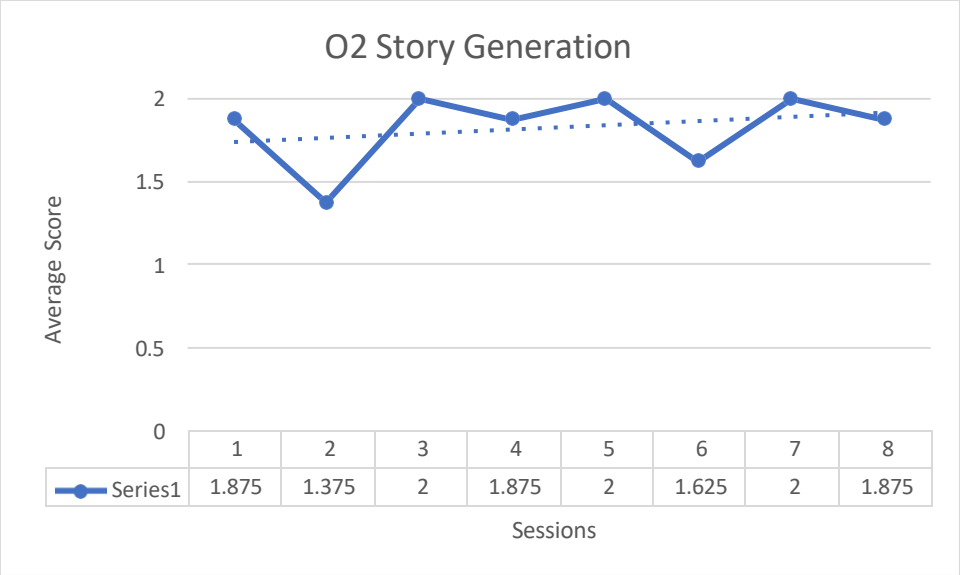


Half of the students made noticeable improvement in story retells over the course of eight intervention sessions. Two of these students (O2 and T1) did not show improvement in story generation during intervention. O2 (Figure 13) made above average improvement in her spoken MISL score and average improvement in her written MISL score. T1 (Figure 14) scored an average of "2" during every session for story generation, indicating she independently told a story with all required elements. After intervention, she made substantial improvements in both spoken (16 points) and written (13 points) MISL scores. The other six students (W2, D1, C1, B1, A1, and E2)

who made improvement in story retells also made noticeable improvements in their story generation over the course of intervention. Two students, D1 (Figure 15) and B1 (Figure 16) showed average improvement in spoken MISL scores but no improvement in their written MISL scores. One student, A1 (Figure 17) showed average improvement in both spoken and written MISL scores. Two students, W2 (Figure 18) and C1 (Figure 19) showed minimal improvement in spoken MISL scores and average improvement in the written score. The final student, E2 (Figure 20) made the greatest amount of improvement out of all 16 students (1.25 points) in his story retells and the second highest improvement (.875) in story generation. While he did not make an improvement in his spoken MISL score, he made substantial improvements in his written MISL score.

Figure 13. Intervention Data for Story Retell/Story Generation and MISL Scores for O2




O2 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.875 1.375 2 1.875 2 1.625 2 1.875
Sessions

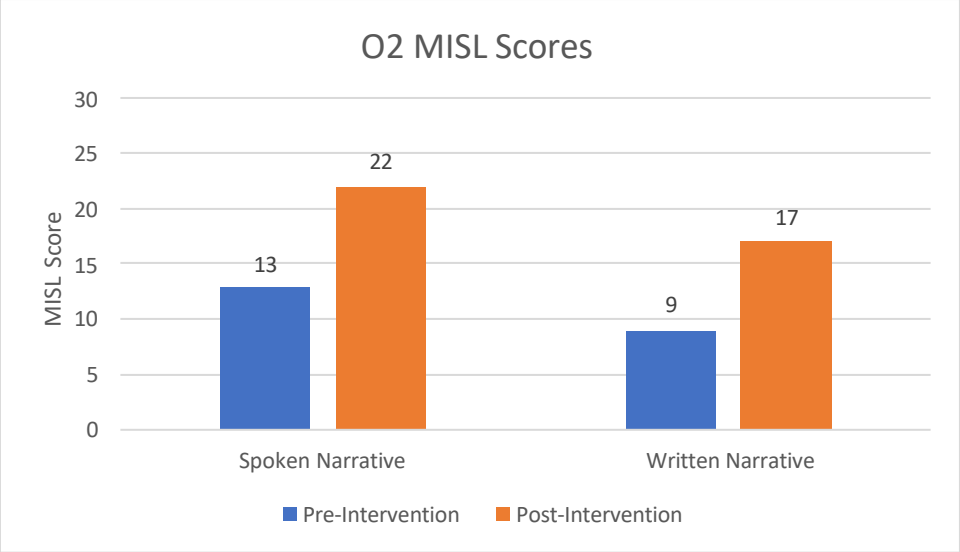
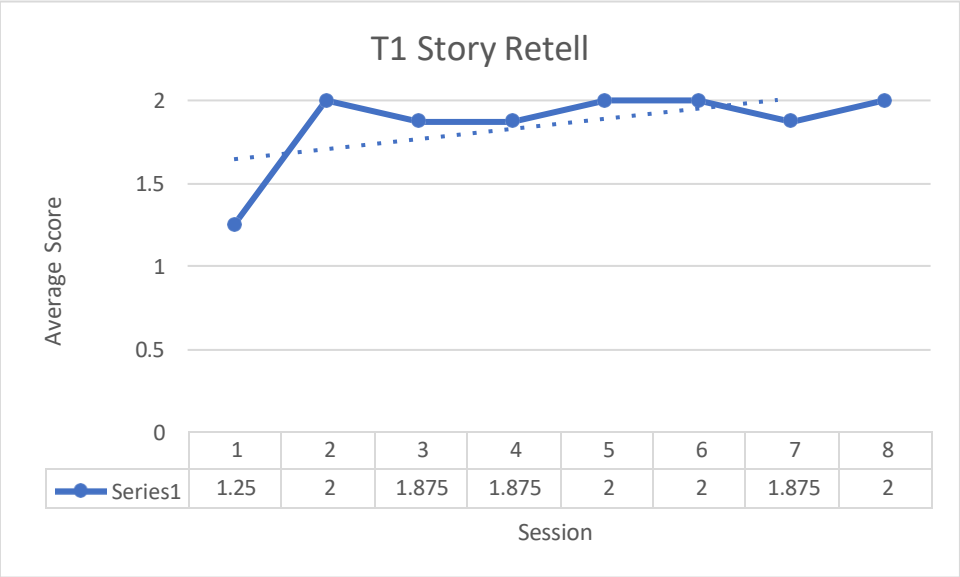
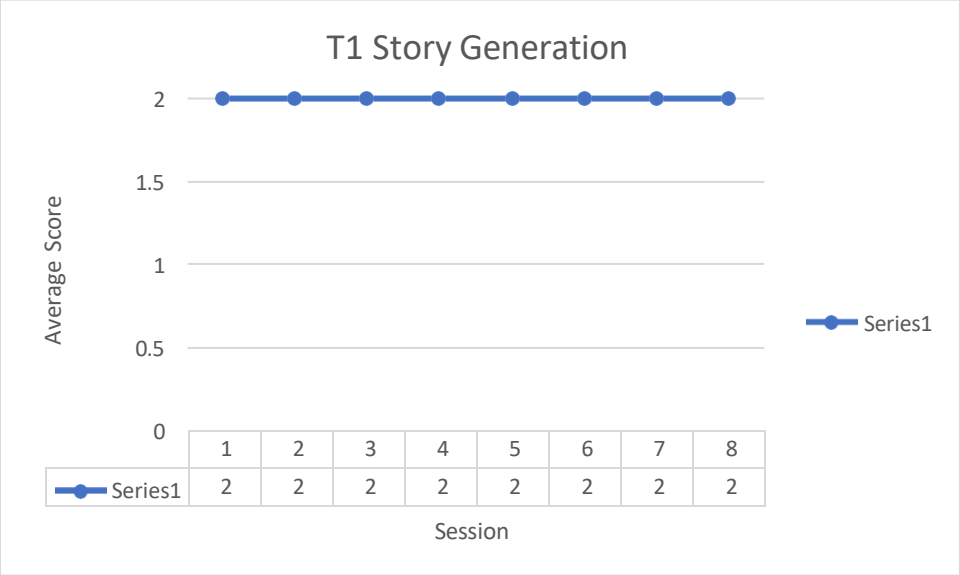

O2 MISL Scores
MISL Score
30
25
20
15
10
5
0
13
22
9
17
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 14. Intervention Data for Story Retell/Story Generation and MISL Scores for T1





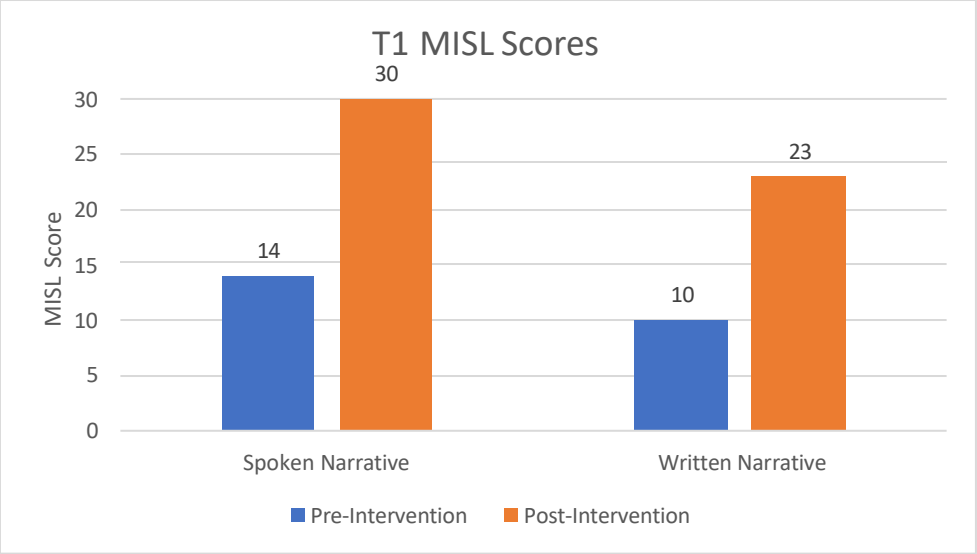
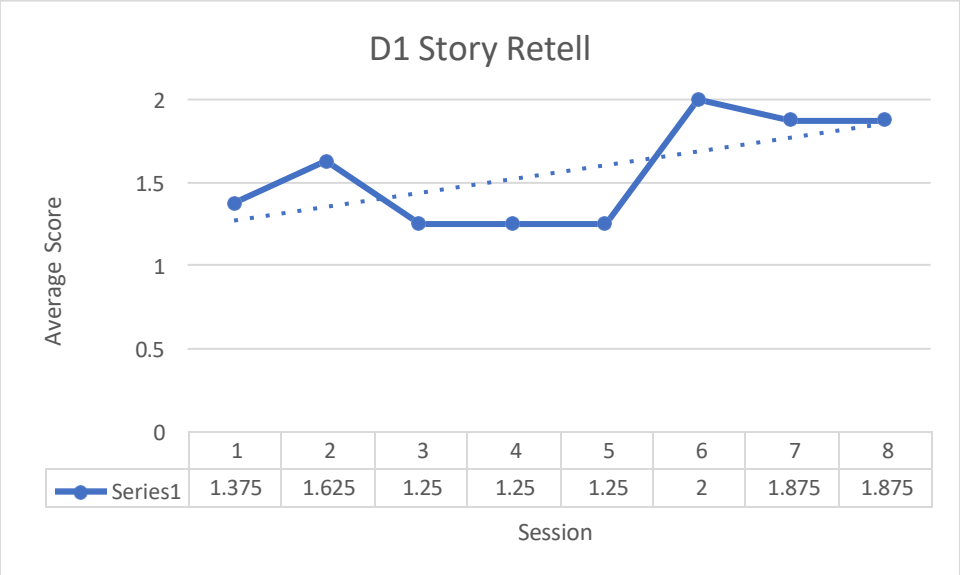
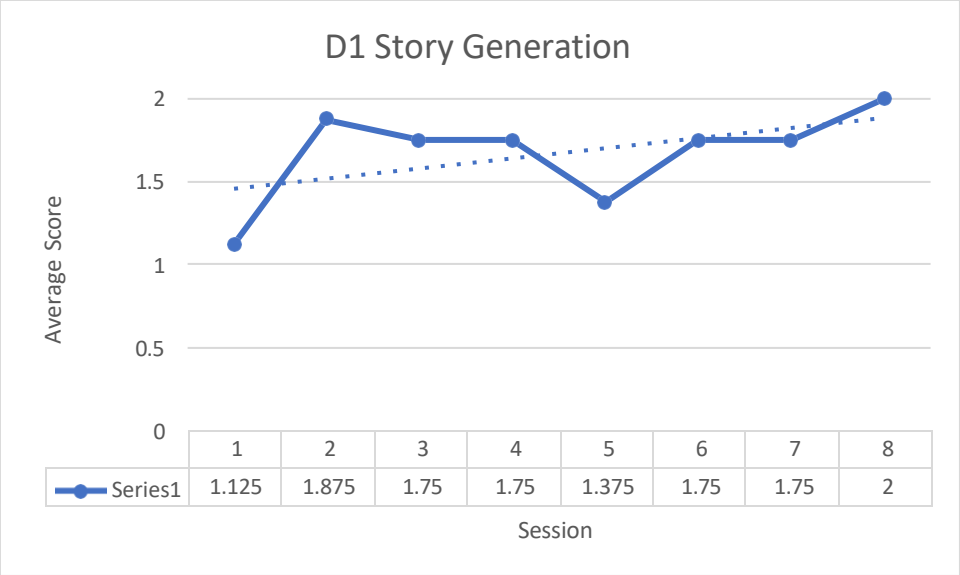


Figure 15. Intervention Data for Story Retell/Story Generation and MISL Scores for D1




D1 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.125 1.875 1.75 1.75 1.375 1.75 1.75 2
Session

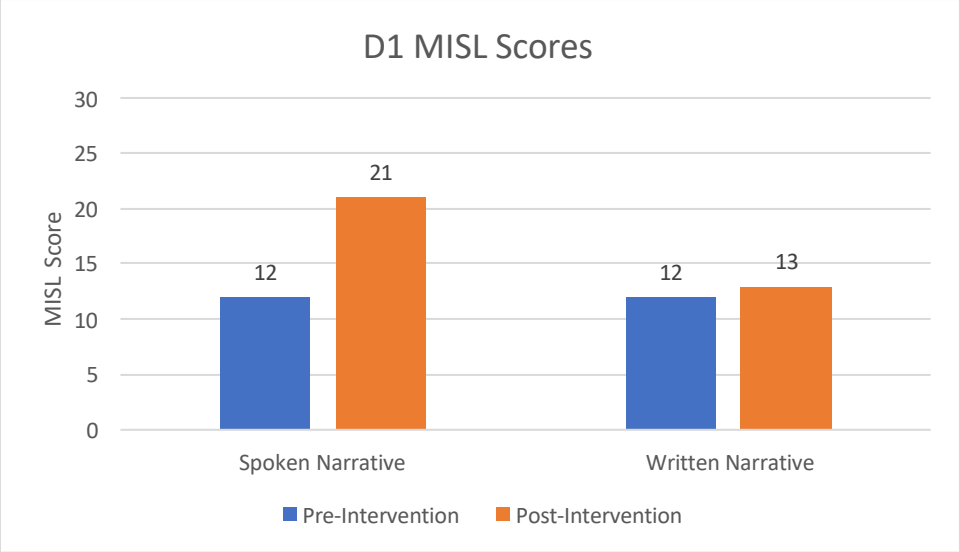
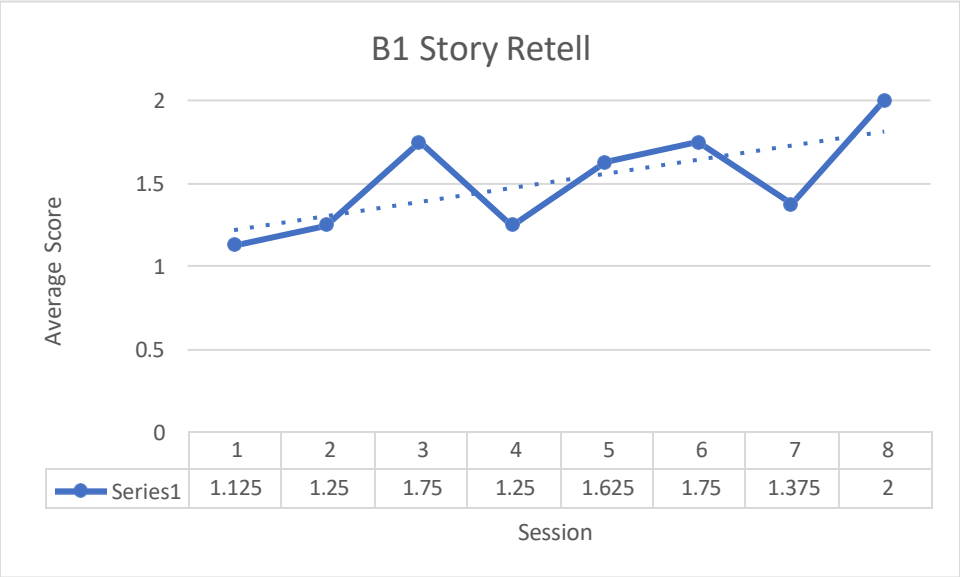
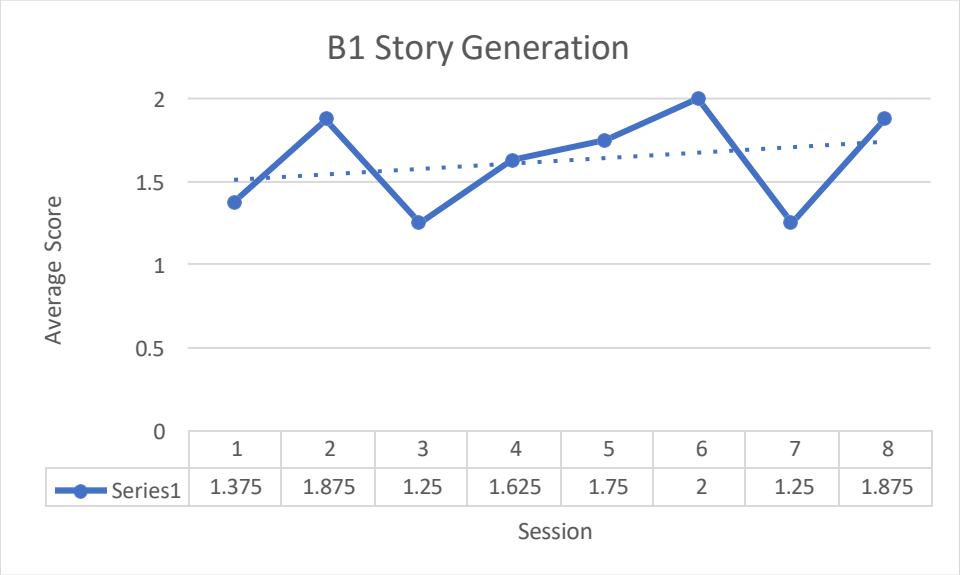

D1 MISL Scores
MISL Score
30
25
20
15
10
5
0
12
21
12
13
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 16. Intervention Data for Story Retell/Story Generation and MISL Scores for B1





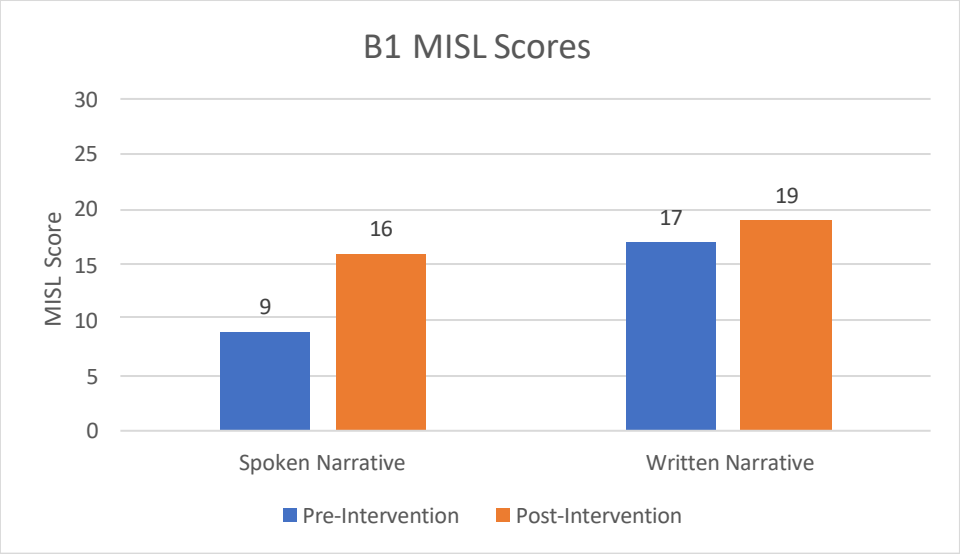
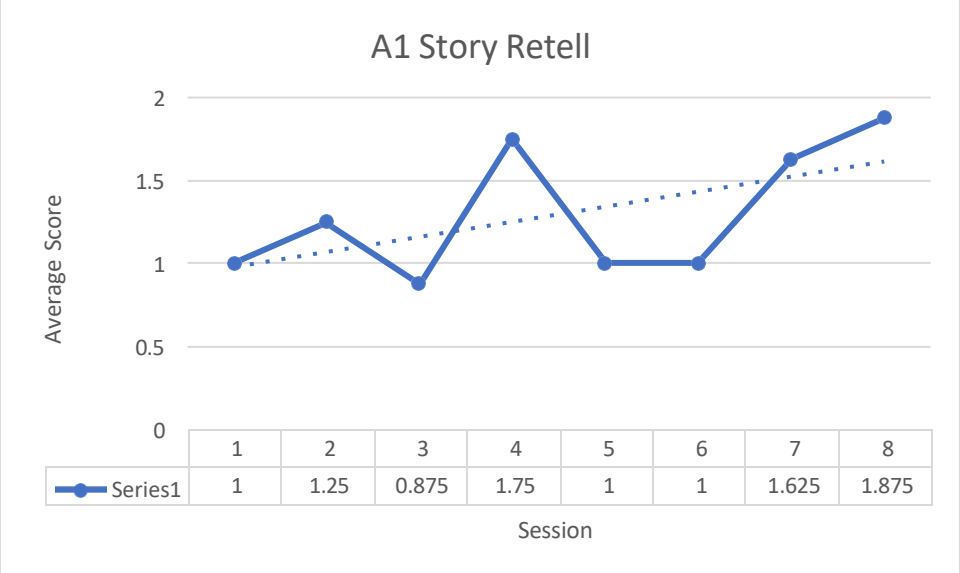
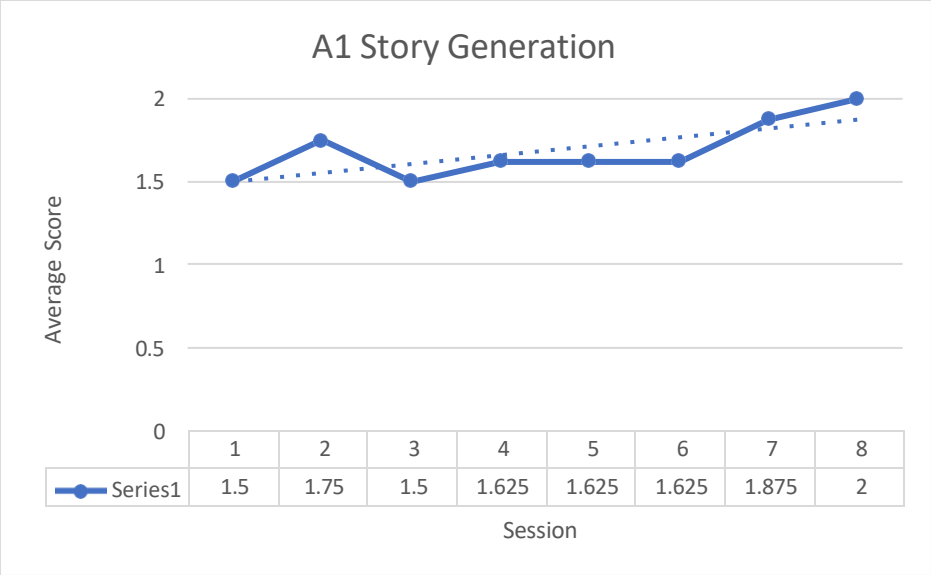


Figure 17. Intervention Data for Story Retell/Story Generation and MISL Scores for A1




A1 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.5 1.75 1.5 1.625 1.625 1.625 1.875 2
Session

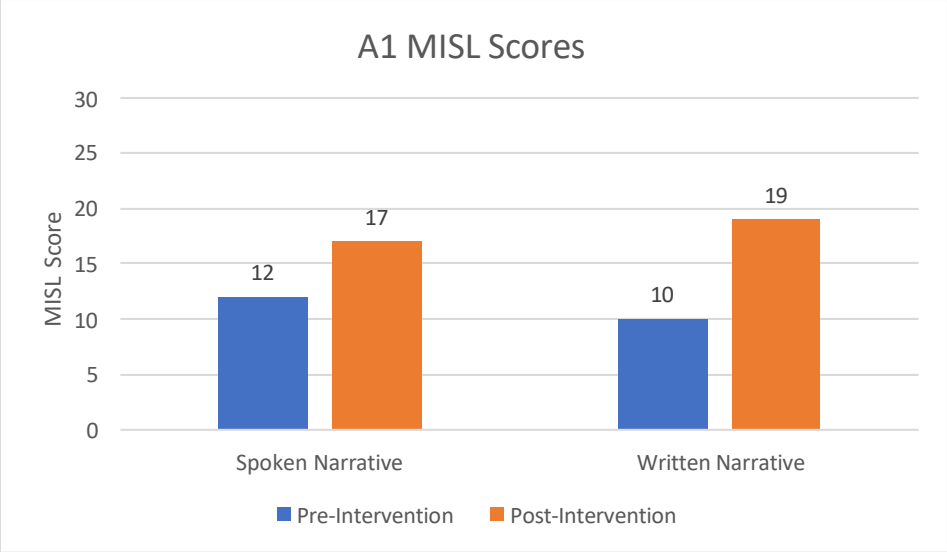
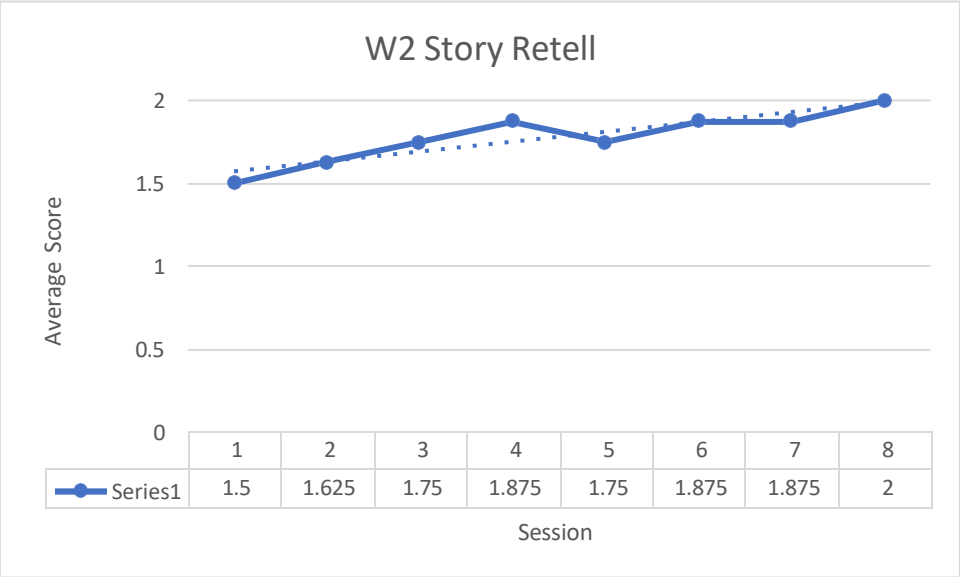
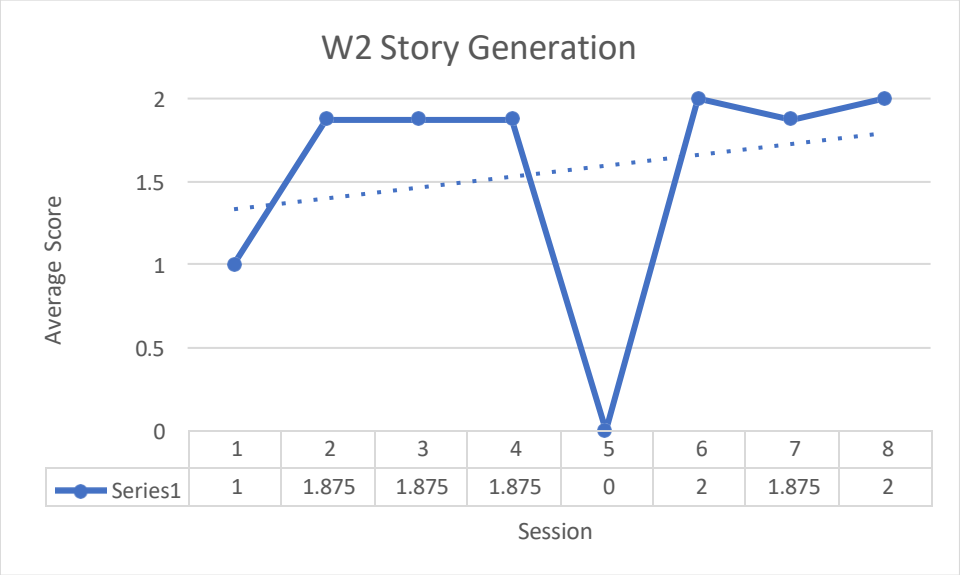

A1 MISL Scores
MISL Score
30
25
20
15
10
5
0
12
17
10
19
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 18. Intervention Data for Story Retell/Story Generation and MISL Scores for W2





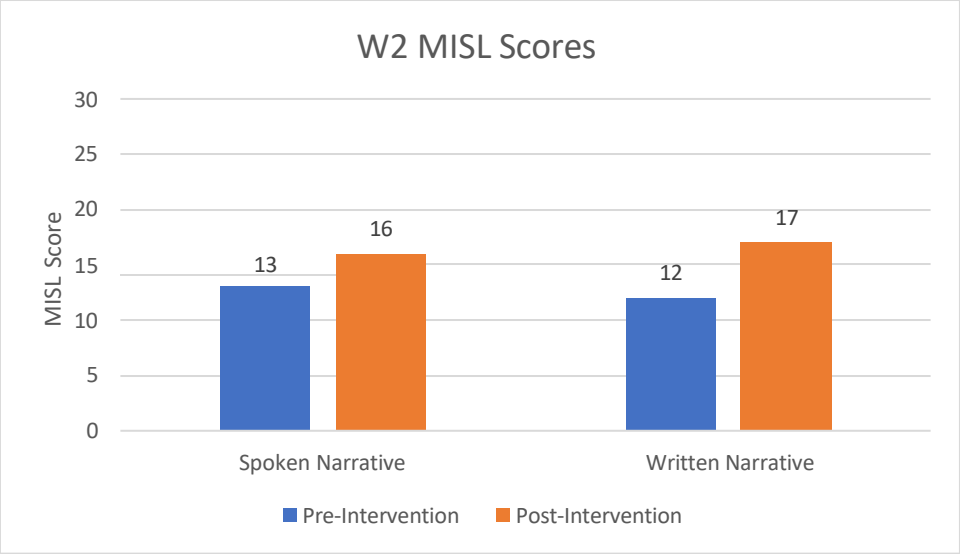
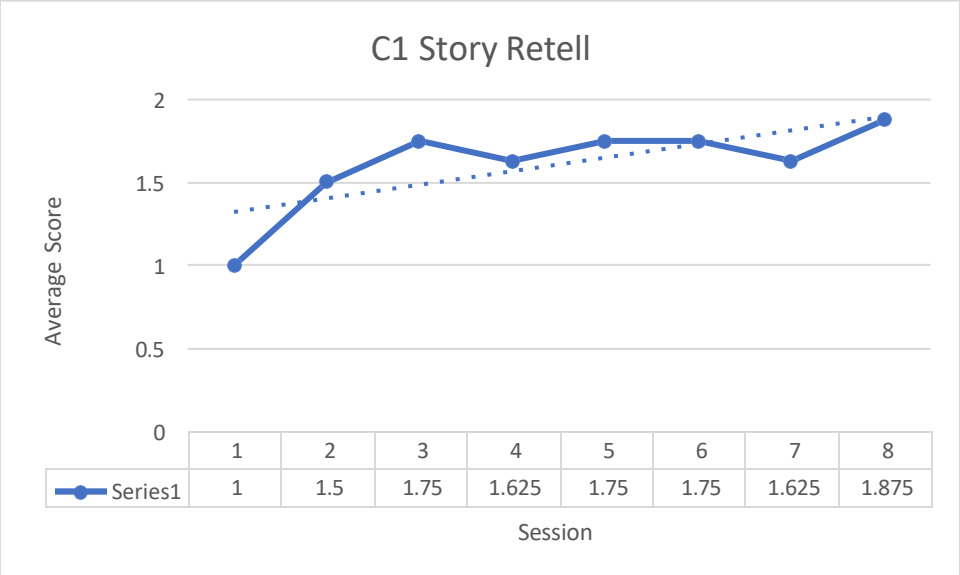
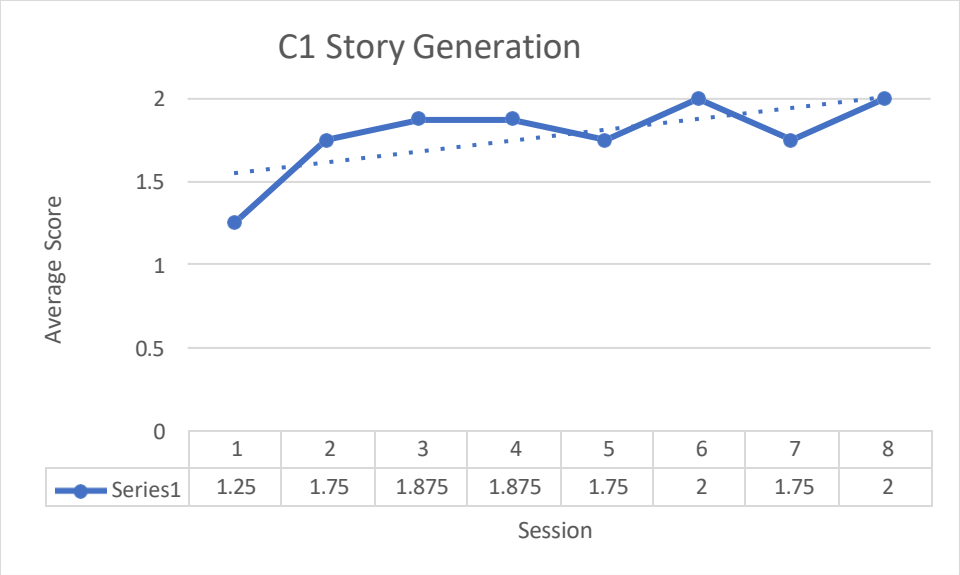


Figure 19. Intervention Data for Story Retell/Story Generation and MISL Scores for C1




C1 Story Generation
Average Score
2
1.5
1
0.5
0
1 2 3 4 5 6 7 8
Series1 1.25 1.75 1.875 1.875 1.75 2 1.75 2
Session

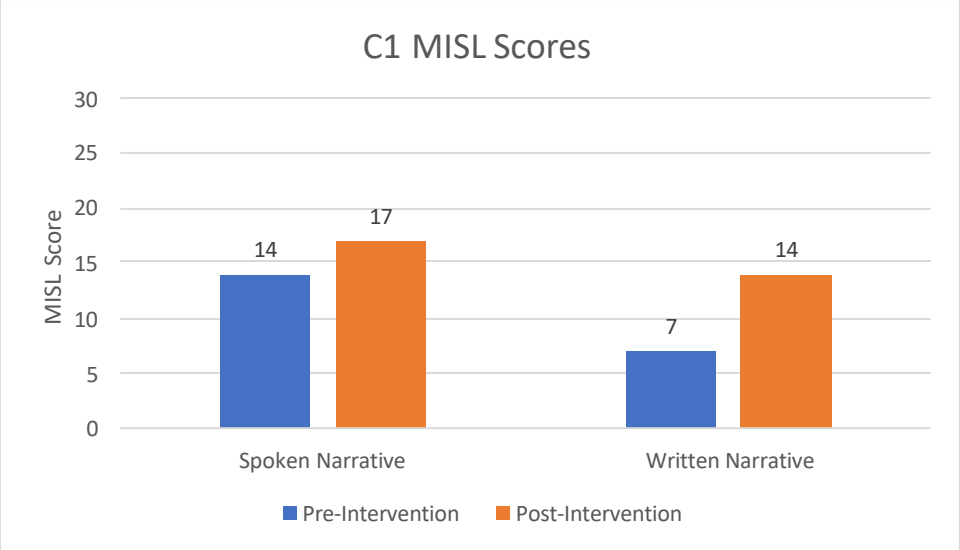
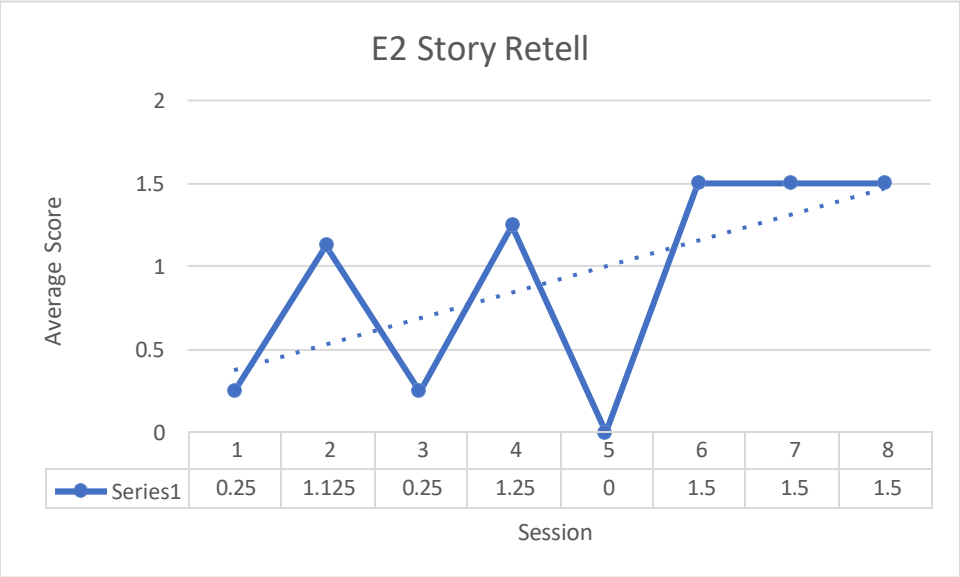
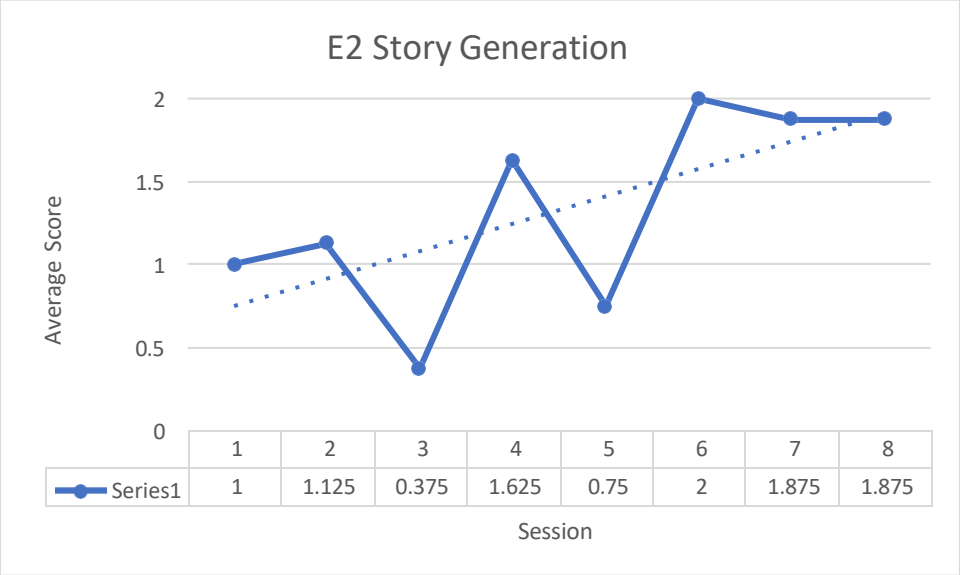
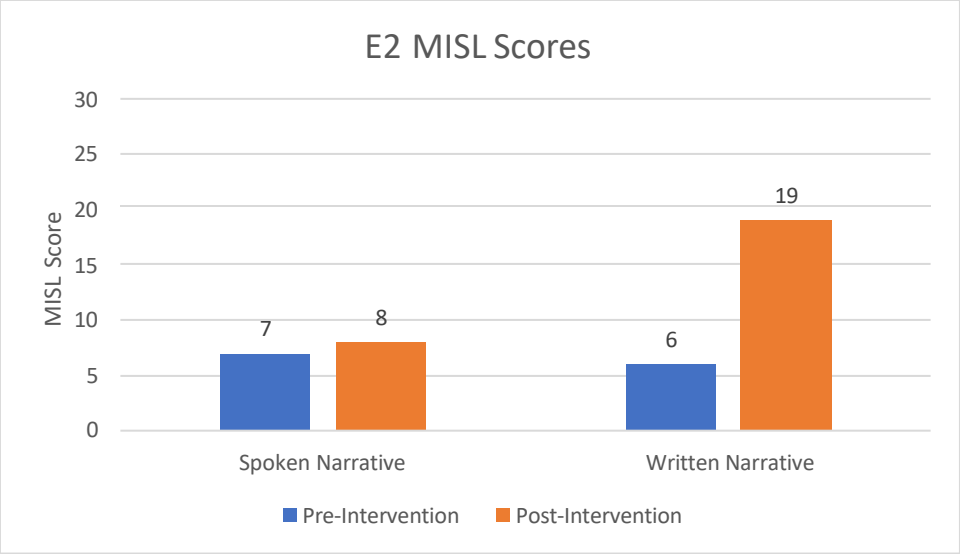

C1 MISL Scores
MISL Score
30
25
20
15
10
5
0
14
17
7
14
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

Figure 20. Intervention Data for Story Retell/Story Generation and MISL Scores for E2






E2 MISL Scores
MISL Score
30
25
20
15
10
5
0
7
8
6
19
Spoken Narrative
Written Narrative
Pre-Intervention
Post-Intervention

CHAPTER V: DISCUSSION

The first series of analyses examined whether an intensive 2- or 4-week clinician-created spoken narrative intervention would result in noticeable improvements with at risk 3rd grade students spoken and written narratives as measured by the total MISL score. The 2- and 4-week interventions both led to significant gains in total MISL scores for spoken and written narratives. These results are similar to the finding of the relationship between narrative-based language intervention and spoken and written language growth found by Petersen et al. (2022). As Spencer & Petersen (2018) found, addressing spoken narratives during intervention can facilitate the understanding of text structure and organized thinking, which facilitates written narratives. Using an integrated approach, along with activities that bridge the gap between spoken and written language during intervention, may contribute to a more comprehensive development of academic language skills.

The improvements in total MISL scores for both the spoken and written narratives did not differ for the 2- and 4-week interventions. This finding indicates that significant gains in narrative ability can be attained by high intensity (4-days a week) interventions as short a 2-weeks. Distributing eight sessions over four weeks did not result in more gains. Recall that previous studies by Petersen and colleagues (2022) and Gillam and colleagues (2014) reported significant narrative gains with longer and more intense interventions using Story Champs and Supporting Knowledge in Language and Literacy (SKILL). In the present study, distributing eight sessions over four weeks did not result in more gains. Similar to research by Bellon-Harn, Byers, & Lappi (2014) and Plante et al. (2019), there were no differences between groups, indicating significant gains in narratives could be found with less intervention time. This means that the intensity of the intervention was a more important factor rather than the duration of the intervention. Using a

structured and explicit narrative intervention like the CCNI will provide students the exposure to the macro- and micro-structure elements of stories that are needed for sufficient retell and personal generation. With significant improvements in only eight intervention sessions, SLPs can work with more students going through a multi-tiered system of support and manipulate their already busy schedules to accommodate for interventions with at-risk students. Working with students for 30-minute sessions 4 days a week for 2 weeks seems to be a more efficient treatment option and can give SLPs the chance to address narrative language in a limited amount of time.

The findings from this study also mean that clinicians do not need to use a published narrative intervention program to improve their students' narrative abilities. The CCNI was proven effective and follows the 10 principle-driven narrative intervention guidelines outlined by Spencer & Petersen (2020). Each session followed the same steps, but a new story and different prompt to generate a story was used each session. The structure of each therapy session was built on story structure at the start. Students answered questions about a story, retold a story and generated their own stories each session, giving multiple examples to promote metalinguistics and generalization and the opportunity to unpack and then reconstruct stories. Students were actively involved throughout each session and group participation was encouraged. The CCNI used visuals, effective scaffolds, and offered immediate corrective feedback. Most importantly, students had fun engaging in discussion about the stories and enjoyed helping one another create their own.

The second series of analyses examined the specific macro- and microstructure elements that improved after the intervention. Although all the macrostructure elements were specifically targeted during intervention, only three significantly improved in both spoken and written narratives after the intervention: initiating event, action, and consequence. Character and plan also increased in the students' written narratives. These findings are not surprising since numerous

studies have shown an increase in the story grammar elements that make up the macrostructure of a narrative after intervention (Gillam et al., 2018; Gillam et al., 2014; Petersen et al., 2022; Spencer & Petersen, 2018). During the pre- and post-intervention assessment sessions, students always produced their spoken narrative first and then completed the written narrative. Completing the written narratives after the spoken ones may explain why students only included more elements (character and plan) in their written narratives. Having more time to think about and complete their written narratives also may have helped. Even though the setting was specifically targeted during intervention and used consistently in student retells and generated stories during intervention sessions, there was no improvement in setting in the post intervention narratives. Data from Hessling & Scheule (2020) showed only 67% of students with SLI who received intervention for setting made improvement. Perhaps setting is not an element students think about explicitly stating because they assume the listener knows where the story takes place by the character and problem. Overall, the best way to improve macrostructure is to explicitly teach the components needed for the text structure of the narrative.

Subordinating and coordinating conjunctions were the only microstructure elements specifically targeted during intervention, but only subordinating conjunctions improved in spoken narratives whereas coordinating conjunctions showed improvement in written narratives. Bellon-Harn, Byers, Lappi (2014), found that preschool children used a significantly greater amount of coordinating and subordinating clauses in their spoken narratives after intervention. In the present study, only subordinating conjunctions improved in spoken narratives. It is unclear why they did not also improve in written narratives. Grammaticality also improved in spoken narratives whereas tense also showed improvement in written narratives. It is unclear why these elements also improved in post-intervention assessments.

Considering all macrostructure elements and conjunctions were explicitly targeted during the oral narrative instruction, it is not surprising that few improvements were made in the students' use of other micro-structure elements (e.g., elaborated noun phrases, adverbs, mental verbs, and linguistic verbs). However, it is possible that if microstructure elements were explicitly targeted during intervention in the oral instruction, observed changes in both spoken and written narratives would have occurred. These findings indicate microstructure elements are not as responsive to instruction as macrostructure elements. Macrostructure elements contribute to the overall coherence and organization of a narrative which means an intervention that targets these elements can have a significant impact on the overall clarity of the story being told. Changes in or omission of macrostructure elements can have a more noticeable influence on the emotional and intellectual impact of the narrative. This type of significant impact to the message of the story is often more apparent than adjustments to the smaller, microstructure elements.

The third set of analyses tracked changes in students' story retell and story generation across the eight intervention sessions. Scores ranged from 0-2. A score of "2" indicated that a student could retell the story independently. A score of "1" indicated a student required cues (scaffold) to help them include targeted elements. A score of "0" indicated that elements were not included even with help. Recall that story retell was used as the teaching tool for required elements. Six students started intervention with a high score during story retells and maintained this score, showing no improvement over eight sessions. Of these six students, three (M2, K2, and A2) did not show improvement for story generation during intervention. M2 and K2 made no to minimal improvement in their MISL scores, whereas A2 made above average improvements in her spoken MISL score and substantial improvements in her written MISL score. Even though A2 did not show improvements in narrative activities during intervention, she was still receiving feedback on

narratives and listening to examples of other literate language features to make her stories more complex. The improvement in her MISL scores show she understood and implemented the feedback. The other three students (K1, S1, and P2) showed improvement in their story generation during intervention and also made average to substantial improvements in their MISL scores. K1 and P2 showed no change in their story retell because they started with a high score (at least 1.75) and ended with an average score of 2. However, K1 made substantial improvement in her spoken MISL score and above average improvement in her written MISL score. P2 made above average improvement in his spoken MISL score and substantial improvement in his written MISL score. Even if a student performs well during a teaching activity, they are still benefiting from the models provided by the clinician and other students and listening to feedback to improve their generated stories.

Two students (E1 and B2) did not show noticeable improvement in story retells, but they did not start with high average scores. E1 started with an average score of 1.5 and only increased to an average score of 1.625 for story retells. Story generation started with a score of 1.125 and increased to 1.5. Her spoken MISL score did not improve; however, her pre-intervention score was 2 standard deviations above the mean and her post-intervention score was one point above the mean. Her written MISL score also did not improve. Her pre-intervention written MISL score was also two standard deviations above the mean and her post-intervention MISL score was at the mean. She started with greater narrative skills than other students but did not respond to intervention. She may need additional sessions to show improvement. It is also possible that she might have a mild language learning disability. Although B2 did not improve during story retell instruction tasks, he did respond to the instruction because his spoken and written MISL score both improved.

Half of the students (8/16) made noticeable improvement in story retells over the course of eight intervention sessions. Two of these students (O2 and T1) did not show improvement in story generation. O2 made above average improvement in her spoken MISL score and average improvement in her written MISL score. Even though T1 made noticeable improvement in story retell, she independently generated a story and included all macro- and microstructure elements in each session. She had an average pre-intervention MISL score, but increased her post-intervention spoken MISL score by 16 points, which was more than any other student. She also made substantial improvements in her written MISL score. These two students clearly benefitted from intervention because their post-intervention narratives were more complex and detailed. The other six students (W2, D1, C1, B1, A1, and E2) who made improvement in story retells also made noticeable improvements in their story generation over the course of intervention. This increase in independence is an example of the "I do, We do, You do" gradual release of responsibility instructional framework (Fisher & Frey, 2014) that was a key component in the teaching method of the CCNI. W2 made minimal improvement in his spoken MISL score but made average improvement in his written MISL score. D1 made above average improvement in his spoken MISL score but no improvement in his written MISL score. C1 made minimal improvement in her spoken MISL score and average improvement in her written MISL score. B1 made average improvement in her spoken MISL score but no improvement in her written MISL score. Al made average improvements in both her spoken and written MISL scores. E2 made the greatest amount of improvement out of all 16 students (1.25 points) in his story retells and the second highest improvement (.875) in story generation. He started with a MISL score of 7.0, the lowest of all 16 students in the study, and only increased his spoken MISL score to 8.0. Surprisingly, his written MISL score increased by 13 points. This dramatic improvement indicates that he did benefit from

the instruction, but it is unclear why the improvement was limited to the written narrative. He might need a longer duration of intervention that focuses on personal narratives at the discourse level, or he might have a mild language-learning disability.

In summary, more than 80% of students (13/16) improved their spoken MISL score and 75% (12/16) improved their written MISL score after intervention. Ten of the 13 students who showed improvement in spoken MISL scores made average to substantial gains. Eleven students made average to substantial gains in written MISL scores. The students who did not show improvement presumably need more than eight intervention sessions to show progress. Recall that all of the students in this study were at-risk students. It may be that these students would qualify for services.

Educational Implications

Previous research identified narrative language as an appropriate intervention target for school-age children due to the negative consequences for socialization and academic success that might arise from deficits in narrative language (Hart et al., 2004; Hoffman, 2009; McCabe & Marshall, 2006). Improvements in narrative language skills may have long-term implications for academic success, particularly in literacy-related tasks (e.g., Gillam et al., 2023). SLPs and teachers should consider the broader impact narrative language intervention can have on academic achievement, including reading and writing proficiency. For children who are at-risk, narrative language can use high impact readings to help engage them in grade level text, both in and out of the classroom. The SLP can take text being used during instruction and implement the six steps of the CCNI. This allows the students extra time with the text and the opportunity to dig deeper into the macrostructure and microstructure elements, instead of simply answering wh-questions to target comprehension.

The positive outcomes of both 2- and 4-week intervention suggest that even a relatively short duration of intervention can have noticeable impacts on narrative language skills. This means that SLPs can provide narrative instruction to more students on their caseloads who would benefit from such instruction. To have the most impact, SLPs should collaborate with teachers and special educators to demonstrate how improving narrative abilities can lead to noticeable improvement in reading and writing.

The CCNI could be incorporated into Tier 1 and Tier 2 interventions, targeting those students who are performing below grade level in reading. Petersen et al. (2022) have shown that narrative instruction can be part of a Multi-Tiered System of Support (MTSS) model that leads to significant gains in students' oral and written language abilities. The CCNI could be easily adapted to whole classroom instruction because it uses grade-level texts and the complex literate language that is required of students to be academically successful. Teachers and SLPs could incorporate instruction targeting macrostructure and microstructure elements that impact overall language and academic skills. This would provide more intensive oral language intervention for those students with greater language needs.

The CCNI could also be tailored to culturally and linguistically diverse students. Using the CCNI, speech language pathologists can use appropriate reading passages and manipulatives to ensure materials reflect the composition of their caseload. Language-related difficulties is often a significant cause of lower academic performance for culturally and linguistically diverse students. There are numerous benefits of providing diverse students with explicit instruction in the use and comprehension of literate language through narrative intervention (Petersen & Spencer, 2014). The CCNI can be adapted for diverse students by using texts that draw from their cultural backgrounds and experiences. Using an intervention that recognizes and incorporates cultural diversity can

make learning more meaningful to all students. Students are more likely to engage with and benefit from interventions that reflect their own identities and experiences. Incorporating culturally relevant stories, characters, and themes into the CCNI are more likely to capture a student's interest and motivate them to actively participate in the intervention sessions. Increased engagement and student motivation can lead to better outcomes (Cartwright, Marshall, & Wray, 2016).

Using the CCNI will allow SLPs and educators to promote inclusivity and respect for different backgrounds. All students will feel appreciated and valued when using diverse stories that can be created with the CCNI. Also, by addressing cultural and linguistic diversity in narrative instruction, SLPs and teachers can give students the skills to navigate diverse social and cultural contexts confidently, promoting effective communication and intercultural competence. The CCNI encourages students to discuss narrative and expository texts with peers which can give them more confidence about their ability to understand and talk about what they read in the classroom.

Limitations and Future Directions

Although this study shows strong evidence that a clinician created narrative intervention improves both written and spoken narratives for at-risk 3rd grade students, it is not without challenges and limitations. The most obvious limitation was the relatively small sample size of only 16 students. Despite the relatively small number of students, the findings were quite clear. Eight intervention sessions spread over 2- or 4-weeks led to noticeable improvements in narrative abilities in third grade at risk students. Future studies should see if these findings are replicable with students who have documented language and learning disabilities, linguistically and culturally diverse students, and students from different grade levels. Previous studies have used a commercially available narrative intervention program in a single-subject design for students with language disabilities and autism (e.g. Gillam et al., 2018; Hessling &Schuele, 2019; Petersen et

al., 2014); however further investigation in the use of the CCNI in a group setting with a diverse population is needed.

Future studies should also examine whether eight sessions of narrative intervention are sufficient to have an impact on reading comprehension. Previous studies (e.g., Gillam et al., 2023) have shown that longer and more intensive narrative intervention led to noticeable improvements in measures of reading comprehension. The results of this study showed significant gains in narrative skills can be made after minimal intervention sessions. An inquiry into the impact of this intervention on student's reading benchmark assessments is warranted.

Summary and Conclusions

Narrative language skills are important for academic and social success. Narratives can address all components of complex literate language necessary for telling or writing a story. Not only are narrative skills incorporated in the NC Standard Course of Study, but students also use narratives to talk about their day, describe past events, create stories, and provide information about different occasions (NC DPI, 2017; Spencer & Petersen, 2020). Research has demonstrated that using a narrative language curriculum or a structured lesson plan enhances students' ability to retell stories, generate personal stories, produce written narratives, and understand social emotional learning (e.g., Brinton & Fujiki, 2019; Gilliam et al., 2023; Petersen et al., 2022). These previous studies have found shown improvements with at-risk students, English-Language Learners, and students with language-learning disabilities.

The purpose of the present study was to see whether a Clinician-Created Narrative Intervention would show similar improvements in narrative abilities of 3rd grade at risk students as published interventions such as Story Champs and SKILL. The study also questioned whether the duration of intervention (2 vs. 4 weeks) influenced narrative performance across the eight

intervention sessions as measured by total MISL scores. There were 16 at risk 3rd grade students in the study. Pre- and post-intervention assessment measures were obtained for both spoken and written narratives, but the instruction only targeted spoken narrative production. Two groups of four students were seen four times a week for two weeks; the other two groups were seen twice a week for four weeks. All students received a total of eight intervention sessions. Each intervention session used a novel grade level passage and story prompt and followed the same six steps in the CCNI. The CCNI targeted activating prior knowledge, listening comprehension with the use of graphic organizers, story retell that incorporated scaffolds and feedback, and story generation. Macrostructure elements targeted included character, setting, initiating event, internal response, plan, action, and consequence. Subordinating and coordinating conjunctions were the microstructure elements specifically targeted.

The 2- and 4-week interventions both led to significant gains in total MISL scores for spoken and written narratives. These results are similar to the findings of previous studies showing that intensive narrative instruction can lead to noticeable gains in narrative performance (e.g., Gillam et al., 2018, Gillam et al., 2023, Hessling &Schuele, 2019; Petersen et al., 2014, Petersen et al., 2022). The improvements in total MISL scores for both the spoken and written narratives did not differ for the 2- and 4-week groups. Significant gains in narrative ability can be attained by high intensity (4-days a week) interventions as short as 2-weeks. Intensity of the intervention was thus a more important factor than the duration of the intervention.

Specific macrostructure and microstructure elements were found to improve from pre- to post- intervention assessments. All macrostructure elements, along with subordinating and coordinating conjunctions, were targeted during each intervention session. Consistent with previous research, not all elements showed significant change in post-intervention assessment

narratives. Only three elements (initiating event, action, and consequence) improved in both spoken and written narratives. Interestingly, character and plan also increased in the students' written narratives. Having more time to think about and complete their written narratives may have helped students provide more key macrostructure elements in their written stories.

The individual data indicated that 81% (13/16) of the students made improvement in their spoken MISL score and 75% (12/16) showed improvements in their written narratives. Even students who perform at an independent level during teaching are still receiving feedback on how to improve their literate language and are listening to models that add details to make the stories more complex. Post-intervention MISL scores indicate they understood and implemented feedback. The students who did not show improvement presumably need more than eight intervention sessions to show progress. Recall that all of the students in this study were at-risk students. It may be that these students would qualify for services.

In conclusion, more than 80% of 3rd grade at-risk students showed noticeable gains in their spoken and written narratives after eight 30-minute intervention sessions with the CCNI over two or four weeks. The CCNI targeted the macro- and microstructure elements of stories that are needed for age-appropriate story retell and spontaneous story generation. These findings indicate that clinicians do not need to use a published narrative intervention program to improve their students' narrative abilities. Importantly, SLPs can use the CCNI in Tier 1 and Tier 2 interventions with students who are performing below grade level in reading which allows SLPs to target narratives abilities with at-risk students as well as those on their caseloads. The CCNI could also be tailored to culturally and linguistically diverse students by creating stories that reflect students' cultural-linguistic background and experiences. Using the CCNI thus will not only

improve students' spoken and written narratives, it can also lead to improvements across curriculum.

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APPENDIX A: ASSESSMENT DIRECTIONS

Pre-Intervention Assessment Measure: Pre-intervention assessments included an analysis of the student's spoken and written self-generated narrative. First, the students were shown a picture scene and told "I am going to show you a picture, I want you to make up a story that goes with the picture. Tell me the best story you can. You can think about it for one minute. Start your story when you are ready". The student's story was audio recorded and later transcribed. Next, the student was shown a new picture scene and told, "Now, I am going to show you a new picture. I want you to write a story that goes with the picture. Write the best story you can. You can think about it for one minute and write for 15 minutes. Start writing when you are ready". The written stories were collected on notebook paper. The spoken and written stories were analyzed using the MISL. All pre-intervention assessment data was collected over a one-week span before intervention began.

Post- Intervention Assessment Measure: The week after intervention concluded for each group, post-intervention assessment measures were collected. Post-intervention assessments included an analysis of the student's spoken and written self-generated narrative. First, the students were shown a novel picture scene and told "I am going to show you a picture, I want you to make up a story that goes with the picture. Tell me the best story you can. You can think about it for one minute. Start your story when you are ready". The student's story was audio recorded and later transcribed. Next, the student was shown a novel picture scene and told, "Now, I am going to show you a new picture. I want you to write a story that goes with the picture. Write the best story you can. You can think about it for one minute and write for 15 minutes. Start writing when you are ready". The written stories were collected on notebook paper. The spoken stories and written stories were analyzed using the MISL (Gillam & Gillam, 2010).

APPENDIX B: MATERIALS USED FOR INTERVENTION

Table 11B. Reading Passages, Background Knowledge Questions, and Story Prompts

Session	*1*	*2*	*3*	*4*
Story Name	Our New Old House	The Wise Choice	Out West	The High Drive
Prior Knowledge Questions	What does it mean to move? Why are older houses sometimes scary?	What is a choice? What is a decision? How do we make good/bad decisions?	What is a journey? What does it mean to settle in a new place?	What does it mean to be excited? When have you had a new experience?
Story Generation Prompt	Have you ever stayed in a place that was scary?	Have you ever made a good decision?	Have you ever moved or tried something new?	Have you ever done something that scared you?
Session	5	6	7	8
Story Name	Casey saves the Play	A Hot, Hot Day	Amra and the Skateboard	Planet Y
Prior Knowledge Questions	What does it mean to "save the day"? What is a stage?	What does friendship mean? What qualities do you like in a friend?	What does it mean to be triumphant? What is a skateboard?	Where do you stay when you go on vacation? What does science fiction mean?
Story Generation Prompt	Have you ever saved the day?	Have you and your best friend ever had fun on a hot day?	Have you ever done something that surprised your parents or friends?	Have you ever visited a place different from your home?