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Assessing Written Narratives: Current versus Theoretical Practices

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ASSESSING WRITTEN NARRATIVES: CURRENT VERSUS THEORETICAL
PRACTICES

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Abstract

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Communicative Sciences and Disorders

Assessing Written Narratives

Faculty Mentor: Dr. Ginger Collins PhD, CCC-SLP

Language sample analysis (LSA) provides a non-standardized, culturally sensitive method of language assessment and is considered a best practice by the American Speech-Language and Hearing Association (ASHA). One type of LSA is the elicitation and analysis of children's written narratives. Narratives, one type of language discourse, either fictional or personal, can be thought of as stories.

Across the literature, there are differences in the types and clinical implications of the individual types of discourse and narratives. For example, eliciting conversational discourse for LSA is less demanding for the student than eliciting narrative discourse. Additionally, research shows that students with a language impairment (LI) produce personal narratives of higher quality than fictional narratives. Research shows that difficulties with narrative skills are a hallmark of children with language learning disorders and that students with LI produce poorer narratives than their typically developing peers. One third of school-based SLPs report not using LSA in their clinical practice. Additionally, research suggests that even the two thirds of school-based SLPs who do engage in LSA demonstrate inconsistency in its use. For example, research shows that SLPs are not adjusting their elicitation context for students with increased maturity. The limited use of other elicitation procedures besides conversation by SLPs deprives some students of robust opportunities to use age-appropriate and complex language skills. Fifty-two percent of school-based SLPs reported transcribing in real-time, against ASHA recommendation, while engaging in elicitation procedures, instead of using a recording device. Researchers report barriers which limit use of LSA in practice. These barriers include time, limited access to resources, limited training and expertise, and inconsistency in analysis procedures, as reported by school-based SLPs. Further research should be conducted to address reported barriers to using LSA and provide solutions to these barriers.

An identified gap exists between what ASHA recommends and current clinical practice by school-based SLPs in regards to LSA. However specific scoring rubrics, such as the *Index of Narrative Complexity* and the *Narrative Scoring Scheme*, currently exist in the literature and could serve as tools for SLPs to assess narratives in a consistent and efficient manner.

Assessing Written Narratives: Current versus Theoretical Practices

Introduction

Speech language pathologists (SLPs) are responsible for the assessment and intervention of speech and language disorders (American Speech-Language Hearing Association [ASHA], 2001). Typically, assessment is administered with standardized and norm-referenced tests. Language sample analysis (LSA) is a non-standardized method of assessment used with oral or written language samples, that supplements the more rigid methods of assessment (Pavelko, Owens, Robert, Ireland, Hahs-Vaughn, 2016). LSA is a practice that has been utilized by SLPs as both a comprehensive and culturally sensitive assessment method for nearly 40 years (Hux, Morris-Friehe & Sanger, 1993). According to Hux et al.,(1993) LSA is able to account for cultural and linguistic differences, as well as other variations amongst clients such as age, and cognitive ability. Despite LSA's versatility and positive attributes, LSA is continuously underutilized by SLPs (Pavelko et al., 2016).

Types of Language Discourse

One method of LSA is to collect language discourse samples from students. Discourse refers to the structural unit of language that is above the sentence level and is an overarching system of language that addresses the framing, flow, and purpose of the language (Hughes, McGillivray, Schmidek, 1997). Bliss and McCabe (2006) outline the six genres of discourse language: conversation, script, personal narrative, fictional narrative, narrative retelling, and expository discourse. Each genre is distinguishable by the level of cognitive and linguistic demand put on the speaker or author by the elicitation method. For example, a conversation assessment is easiest for a speaker of any age because listeners provide speakers with immediate feedback by asking for clarification or more information. Scaffolding is provided in this conversational relationship. Narrative assessment presents a larger challenge with the speaker bearing all the responsibility to engage an audience with an organized and engaged story of personal or fictional experience (Bliss, McCabe, 2006; Nippold, Frantz-Kaspar, Cramond, Kirk, Hayward-Mayhew, MacKinnon, 2014). Additionally, narrative discourse differs from expository discourse, which serves to instruct. The skills needed to coherently arrange memorized steps or facts are different from those needed to recount experiences. Discourse designed to teach someone how to change a bike tire will be formatted with phrases such as "first one must" and

“now the job is done”, which is unlike narrative phrases such as “once upon a time” and “and they lived happily ever after”.

Defining a Narrative

Narratives are an essential and largely universal way in which individuals encode and make sense of their experiences (Hughes et al., 1997). Many SLPs use oral and written narrative samples from their clients to assess language development. By definition, a narrative is a “mode of thought...[dealing] with both temporally ordered action and human intentions” (Bruner, 1985). A well-formed narrative contains story-grammar elements that provide structure for the listener to comprehend. Elements include: an introduction, a setting, characters, a conflict, conflict resolution and appropriate cohesion to indicate the development of a storyline or occurrence (Bruner, 1985). In an ideal narrative, all of these story grammar elements must be used to describe goal-directed behaviors carried out by specifically named and described characters. The result of the loss of one or more of these elements is a breakdown in communication. A story without an introduction of characters or the wrapping up of a conflict will leave a listener confused and disconnected. For example, in the story of “Little Red Riding Hood”, if readers were never told that Little Red Riding Hood was on her way to visit her grandmother, it would be unclear as to why she would believe the wolf was an old woman, and in fact her grandmother. In the known tale of “Goldilocks and the Three Bears,” it is clearly stated how Goldilocks comes upon the bears’ home, why she tries the porridge, sits in the chairs, and lays in the beds, and what happens when the bears return. A reader is correctly given four characters in a detailed setting and made to understand the rise and fall of the conflict. The author or speaker of a narrative must have a sense of what the reader or listener knows and does not know.

Narratives provide insight to individuals' functional language and can predict reading comprehension and literacy (Hughes et al., 1997). Personal narratives, centered around the speaker’s area of interest and based from daily experiences, reflect an individual’s functional language (Bliss et al., 2006). Functional language can be thought of as language used freely on a day to day basis that is naturally and independently elicited. Fictional narratives, stories told from a wordless picture book or visual prompt, elicit more utterances than personal narratives do, due to the presence of visual prompts (Bliss et al., 2006; McCabe, Bliss, Barra, Bennett, 2008).

Fictional narratives, although longer in length, present difficulty with the evaluation of referencing since referents appear in the prompts and the speaker might assume the assessor also sees the picture and knows who they are referencing throughout their description. A quasi-experimental design study addressing how children with language impairment (LI) diagnoses produce personal and fictional narratives of different quality, found that study participants produced personal narratives of higher quality over fictional narratives (McCabe et al., 2008). The twenty-seven participants of McCabe's study, all from the same geographic region and socio-economic status, were prompted with a conversation map procedure to elicit a personal narrative and the wordless picture book *Frog, Where are You?* to elicit a fictional narrative. McCabe's study's results may relate to the participants having more motivation to share new information that is of high quality in a personal narrative, where nothing is assumed, than in a fictional narrative, where assessor and participant share a visual framework of understanding (Nippold et al., 2014). Between personal and fictional narratives, there are differences in speaker demands as well as in clinical implications.

Why Narrative Skills are Important

Narrative production and comprehension skills are important because of the large role they play in academic, social, linguistic, and cultural development (Boudreau, 2008; Petersen, Gillam & Gillam, 2008). A child's ability to use connected language, such as narrative discourse, provides insight into the child's development of higher level language skills such as decontextualized language usage (Boudreau, 2008). Narratives, in particular, are essential components of social and academic success for developing children (Boudreau, 2008). Additionally, research has shown that difficulties with narrative skills, both receptively and expressively, are a known hallmark of children with language learning disorders (Boudreau, 2008; Petersen et al., 2008). Understanding the reasons why narrative production and comprehension skills are important and what factors may influence an individual's level of narrative proficiency will help to support the use of narrative analysis as a best practice for language assessment of school-aged children.

Narratives have a central place in the lives of humans and play an important role in our lives socially (Wallach & Butler, 1994). All individuals have a basic need to share stories, allowing for successful functioning in society (Koki, 1998). Sharing narratives allows an individual to

entertain others, to teach others, to express opinions, thoughts, and feelings, to participate in meaningful conversation, to construct imaginary stories, to organize and make sense of experiences, to record important occurrences, and to reflect on past experiences (Boudreau, 2008; Koki, 1998; Petersen et al., 2008; Wallach & Butler, 1994). Storytelling is especially important for developing children because it helps them understand their world, share that understanding with others, and enhance their cultural awareness (Koki, 1998). Perhaps most importantly, narrative skills give us the opportunity to establish and maintain relationships (Petersen et al., 2008). This is made possible because narratives are a vehicle for relating to other individuals on a personal level via discussion of experiences and perspectives. This discussion creates potential for new connections to develop that can link individuals together (Koki, 1998).

Narrative skills are crucial for academic success and underdeveloped narrative skills have been shown to predict difficulties in academic achievement (Boudreau, 2008). Narratives require a multitude of different cognitive-linguistic skills from a student (Friend & Bates, 2014; Heilmann, Miller, Nockerts & Dunaway, 2010). For example, narratives demand the use of executive functioning skills such as attention, focus, planning, using working memory, and organizing information coherently to share with others. Friend and Bates (2014) report that to tell a quality story, an individual must engage in executive processes such as organizing information into causal chains in a temporal sequence.

Along with executive functioning skills, producing quality narratives also requires language skills in the realms of syntax and semantics (Heilmann et al., 2010). Microstructural elements such as correct grammar and lexicon are positively related to the development of macrostructural elements such as narrative organizational skills (Heilmann et al., 2010). Students must not only use correct grammar and a broad lexicon to convey intended meanings, but students must also organize story elements in a coherent and clear manner (Heilmann et al., 2010). Possessing both narrative macrostructural and microstructural skills will help a student to successfully produce written narratives, which are a major component of school curriculum (Heilmann et al., 2010). According to the Common Core State Standards Initiative (CCSSI; 2017), narrative skills are used heavily in curriculum throughout each year of school and expectations for narrative production and comprehension proficiency are re-occurring across context areas such as language arts classes, math classes, and social studies classes.

In addition to narrative skills being important for writing tasks associated with school curriculum, a student's narrative discourse development is also strongly linked with emergent literacy skills and successful acquisition of literacy for reading comprehension tasks (McCabe, Bliss, Barra & Bennett, 2008; Rollins, McCabe & Bliss, 2000). Written narratives vary in content and structure and are commonly incorporated into class assignments to test for understanding of the presented material (CCSSI, 2017).

Populations that Struggle With Narrative Production and Comprehension

Students with language learning disabilities (LLD) or language impairment (LI) and students from non-mainstream cultural backgrounds may experience difficulties with narration and difficulties with processing narratives produced by others (Heilmann et al., 2010; Petersen et al., 2008; Wallach & Butler, 1994). These difficulties may be due to an inability to predict the typical narrative structures used in the mainstream (Wallach & Butler, 1994). Students with LLD or LI will likely present with deficiencies in microstructural elements and macrostructural elements of narrative production (Heilmann et al., 2010). Students with LLD or LI often use incorrect grammar and inappropriate lexicon (microstructural elements) during narrative production (Heilmann et al., 2010). Additionally, students with LLD and LI will also struggle to provide coherent organization of events. These students may even omit certain important story grammar elements such as the initiating event or the conclusion, which could lead to confusion on the part of the reader (Heilmann et al., 2010). Students with LI have been shown to produce linguistically and structurally poorer narratives than their typically developing peers (Boudreau, 2008). Difficulties with connected discourse continue to reflect on overall linguistic performance in children with LI even after other components of developing language normalizes (Boudreau, 2008). Weakness in cohesion and organization of narratives can place this population of children at a disadvantage in the school system as discourse demands within the curriculum continue to increase year by year (Boudreau, 2008).

Students from diverse cultural backgrounds may also experience narrative discourse difficulties (Wallach & Butler, 1994). Culturally diverse students may be adhering to the narrative structure of their own culture, which likely has many distinct characteristics, rather than adhering to the narrative structure of the mainstream group of students (Wallach & Butler, 1994).

Although all cultures participate in narrative production and comprehension, narration itself varies greatly across cultures (Wallach & Butler, 1994). For example, the functions and genres of narratives may differ for each culture, the content and thematic emphasis of narratives may differ across cultures, the structural organization and style of narratives differ across cultures, who has privilege to tell narratives may vary from culture to culture, and how children are socialized into the understanding and the production of narratives is also culturally different (Wallach & Butler, 1994). With this being said, narrative production is an intrinsic human ability; however, cultural practices and traditions heavily influence specific narrative characteristics (Wallach & Butler, 1994).

Understanding the role of culture in written narrative development helps SLPs to distinguish between a child with a language difference and a child with a language disorder. According to Rollins, McCabe, and Bliss (2000), a narrative sample differing from typical European North American structure might reflect variation culturally, but should not be mistaken for impaired narration. Understanding this difference will in turn influence intervention decisions about how to help a student struggling with narrative skills. Whether a child has LI or LLD, or a culturally-based language difference, acquiring the ways in which language is used and understood through the use of narratives is important for success socially and academically in the school system in which that child is a part of (Wallach & Butler, 1994).

Because narrative tasks are more demanding and require higher level functioning than participating in spontaneous conversation, narratives provide a critical context for language assessment and intervention (Boudreau, 2008). Written narratives give SLPs valuable insight into a student's language capabilities. According to Boudreau (2008), narratives require a blend of knowledge of pragmatics and world experience, which requires a student to use both linguistic and cognitive skills during connected discourse. Narrative skills are crucial for academic and social development in children; therefore, written narrative analysis should be used routinely as an authentic component to a school-based SLP's assessment process. Narrative analysis can help detect students struggling with narrative proficiency, guide intervention strategies that can be generalized to the child's everyday life outside of therapy, and monitor student progress toward treatment goals (Boudreau, 2008; Heilmann et al., 2010; Petersen et al., 2008).

As a contextualized, non-standardized method of measurement, LSA is considered to be culturally sensitive (Pavelko et al, 2016). Narratives reflect an individual's personal and cultural experience. They require one to draw on general relevant social knowledge. Because narratives are based on social roles, motives, intentions, and interactions instilled through personal experience, the assessment of them is a culturally responsive practice. SLPs need to create an accurate depiction of an individual's language skill level by being cognizant of ways to accommodate cultural differences with non-standardized methods of assessment.

SLPs' Professional Obligation to LSA

There are a number of important reasons why SLPs should engage in analysis of students' narratives. The benefits of LSA, including skill insight, estimation of academic success, and cultural appropriation, support the elicitation and assessment of written narratives. More than this, however, SLPs and classroom educators have a professional obligation to elicit and evaluate narrative writing. ASHA asserts language sample analysis as a best practice for school-based speech-language pathologists (ASHA, 2001). ASHA calls for language sampling as "a valid source of information for a comprehensive assessment of spoken language disorders" and considers it a crucial part of speech and language professionals' routines (ASHA, n.d.; Pavelko et al., 2016). ASHA deems language sampling to be a critical component of an SLP's clinical preparation and practice and requires SLPs to demonstrate the knowledge and skills necessary to administer non-standardized evaluative procedures, including LSA (ASHA, 2001). SLPs are also responsible for the assessment and intervention with respect to all levels of language ability, including written as well as oral language and discourse is also within the SLP's scope of practice (ASHA, n.d.).

The value of narrative sampling and analysis as a high-quality academic standard is identified in the Common Core State Standards (CCSS) (Common Core Standards Initiative, 2010, p. 18, 19, 43, 46). Common Core State Standards are learning goals for educational environments identifying what students should know and be able to do at each grade level. State governments have adopted these educational standards and are working to implement them in K-12 classrooms across the nation. Specifically, within the Common Core State Standards for English Language Arts & Literacy for grades K-12, narrative is a specific type of text that is progressively evaluated from grades 1-12 (Common Core Standards Initiative, 2010, p. 18, 19,

43, 46). It is explicitly stated in the Common Core State Standards that in the third and fourth grades, students are expected to "write narratives to develop real or imagined experiences or events using effective technique, well-chosen details and well-structured event sequences". The specificity of the language in the Common Core State Standards addressing the expectation of narrative ability among elementary age students further supports the engagement of school-based SLPs in the analysis of these students' narratives.

Effective LSA Extraction Methodology

The American Speech-Hearing-Language Association (ASHA) acknowledges that SLPs should use LSA to collect a comprehensive depiction of language development; thus, it is important for SLPs to understand when and which narratives should be analyzed. A nationwide survey of school-based SLPs was published in 2016 to understand the use of LSA by school-based SLPs, including the characteristics of the samples, the method of collection of samples, and the barriers to the utilization of LSA (Pavelko et al., 2016). The method of survey distribution was electronic survey; 1,399 participants responded from 34 different states, without compensation. Researchers reported that 33% of the respondents did not report use of LSA over the 2012-2013 academic year. Among the two thirds of the respondents who reported LSA use, SLPs serving in preschool and elementary settings were more likely to use LSA than those in middle and high school settings. Across all student age categories, conversation samples were collected, and transcribed in real time against ASHA's best practice standards, the most frequently. Nippold et al. (2014) proposes that more consideration needs to be given to the age-appropriateness of the chosen LSA method. In the adolescent years when individuals are transitioning into more abstract thought processes and language use, SLPs should understand that a conversation about a hobby might elicit a narrative of lower quality than one of a fable or moral tale (Nippold et al., 2014). For children, conversation might be most appropriate, but more demanding methods of LSA such as narrative or expository discourse fit the more mature language abilities of an older student. The survey concluded that school-based SLPs would benefit from further education on LSA and the development of evidence-based analysis protocol for LSA.

Use of Scalable Tools in LSA

School-based speech-language pathologists use scalable tools to complete language sample analysis with a standardized, comprehensive method. Popular clinical tools used for LSA are grading rubrics (Justice, Bowles, Kaderavek, Ukrainetz, Eisenberg, & Gillam, 2006; Justice, Bowles, Pence, & Gosse, 2010). The use of rubrics in the assessment of a student's narrative provides the opportunity to evaluate their performance specifically and their language abilities more generally. Different rubrics exist purposed to assist SLPs in the evaluation of student's written narratives, including the Narrative Scoring Scheme (NSS), the Index for Narrative Complexity (INC), the Index of Narrative Microstructure (INMIS), and the Narrative Assessment Protocol (NAP) (Heilmann et al., 2010; Peterson, Gillam, & Gillam, 2008; Justice et al., 2006; Justice et al., 2010). While each provides total means for narrative assessment, each differs in length, scoring scale, and narrative components assessed (Heilmann et al., 2010; Peterson, Gillam, & Gillam, 2008). Furthermore, some of these tools measure narrative macrostructure while others account for microstructural aspects of narrative production. The use of rubrics in LSA allows SLPs to inspect students' narrative performance and identify their standing relative to same-age student averages upon score comparison.

Barriers to Using LSA

Although ASHA considers LSA a best practice, it is not a practice in which all SLPs engage (ASHA, 2001). In the most recently conducted national survey of school-based SLPs results indicated that nearly 33% of responding SLPs were not engaging in LSA (Pavelko, et al., 2016). This is up from prior survey reports which indicated approximately 15% of preschool SLPs were not using LSA in their practice Kemp & Klee (1997). There are several barriers that prevent SLPs from collecting and analyzing narrative language samples as part of their assessment process. The most commonly cited barrier to this process is time. Noted in the *Narrative Assessment Protocol* (Justice, Bowles, Kaderavek, Ukrainetz, Eisenberg, & Gillam, 2006) the use of narratives for assessment of language is not as common as other assessments. SLPs reported a preference for other assessments to LSA due to the extended amount of time it takes to transcribe narratives. When reviewing existing narrative assessments such as *The Renfrew Bus Story* (Cowley & Glasgow, 1997) and *The Test of Narrative Language* (Gillam & Pearson, 2004) it was determined that *The Bus Story* takes approximately 30 minutes to administer, with additional time required for scoring, coding, and transcribing the narrative –

elements all critical to full completion of the analyzation process (Justice et al., 2006). Similarly, the *Test of Narrative Language* takes approximately 25 minutes to administer with an additional 40 minutes to score (Petersen, Gillam & Gillam, 2008). One way to minimize time in LSA is to use written narrative language samples instead of oral narrative language samples. By using written samples instead of oral samples, the time used to obtain the samples is decreased, allowing SLPs more time to focus on analysis of the samples.

Another barrier in using LSA is limited resources, specifically referring to SLPs who felt that they didn't have access to materials for use of LSA (Pavelko, et.al, 2016). Resources critical to the process of obtaining data used to configure norms for use with the assessment of narratives are not always readily available to SLPs. As an aid to this barrier, SLPs can use the Systematic Analysis Language Transcripts (SALT) software program to transcribe obtained narrative samples (For Clinicians, n.d.). The SALT software program allows SLPs to compare these samples to other groups of children, including those of students more ethnically and linguistically diverse. This allows SLPs to complete an extended analysis and draw conclusions without having to find and use the specific resources necessary to complete a local field test (Justice et al., 2006).

An additional barrier is the inconsistency in use of LSA. According to Pavelko et al., (2016) SLPs with more experience are reported as more likely to use a self-designed protocol to elicit and analyze language samples, however, their protocols may not be consistent or research-based. On the other hand, SLPs with less experience - specifically three or less years - were found not as likely to use a self-designed protocol. Because SLPs with fewer years of experience are less likely to use a self-designed protocol, we must consider which materials they may be using instead or rather the idea that they may not be obtaining or using LSA in their practice at all.

Inconsistency in LSA refers to the methods by which language samples are obtained by SLPs. More than the difference of written versus oral samples are the variety of ways in which written samples can be obtained. For example, some SLPs may ask a child to compose a narrative in response to a story starter Haskill & Stralow (2006). Other SLPs may use a picture prompt or film clip, asking the child to formulate a story based on the actions taking place in the photo or video. For example, a picture prompt could show a cat with its face peering over the

side of a fish bowl. With such outstanding variety in the elicitation methods of language samples, the opportunity for inconsistency among SLPs is heightened. Due to the capacity for inconsistency and variability that exists within the use of LSA, SLPs should be aware of this variability so they can be sure to avoid inconsistency when using LSA allowing LSA to be utilized as the functional and dynamic tool it is.

An additional barrier is inexperience. SLPs with reported less experience in the field or little to no practice in the use of LSA were less likely to use LSA (Pavelko et al., 2016). Despite some SLPs indicating feeling they weren't experienced enough in use of LSA in practice, ASHA considers those SLPs who have received their Certificate of Clinical Competence from ASHA to have the ability to use their knowledge and competency as clinicians to perform procedures such as LSA (Pavelko, et al., 2016). Given that narrative analysis is highly supported by ASHA it is crucial that practicing SLPs use LSA properly and consistently in their practice (ASHA, 2001).

Rubrics

One way to encourage SLPs to utilize LSA is to introduce them to the resources available for conducting narrative analysis, such as *The Index of Narrative Complexity* (Petersen, Gillam, & Gillam, 2008) and *The Narrative Scoring Scheme* (Heilmann et al., 2010). The *Index of Narrative Complexity* ([INC] Petersen et al., 2008) was designed by authors to include important structures related to assessment including both macro and micro structures to be able to capture a language sample. The INC contains 13 narrative element categories (see table 1) which are weighted based on each elements' overall level of importance to narrative cohesion. The *Narrative Scoring Scheme* ([NSS] Heilmann, et al., 2010) is similar in its goal in that its' creators aim to have the rubric used to capture many aspects involved in the composition of narratives by including lower and higher level narrative skills as well as use individual judgement by scorer (SLP) in seven separate areas (see table 2). The overall scores from this rubric can be cumulated for an overall score to provide a general overview as to the level of narrative abilities by a child. These rubrics use detailed qualitative and quantitative measures for efficient and effective narrative analysis which can be easily obtained and used in their practice with little to no additional instruction on how to use them.

Purpose Statement

The purpose of this study is to explore narrative analysis as a best practice for language assessment of elementary school-aged children by school-based SLPs. Researchers will evaluate two proposed narrative assessment tools (INC and NSS) to address the unique benefits of each tool, the ease of use and understanding of each tool, and the time efficiency of each tool along with addressing the various barriers to using narrative analysis reported by SLPs (lack of time, lack of clinical expertise, lack of resources, and lack of consistent analysis procedures). Through this study researchers will strive to provide rationale for SLPs to incorporate narrative analysis into their routine clinical practice.

Table 1. Index of Narrative Complexity (INC)

Narrative Element	0 Points	1 Point	2 Points	3 Points
Character – <i>Any reference to the subject of a clause in a narrative.</i>	No main character is included, or only ambiguous pronouns are used.	Includes at least one main character with nonspecific labels only.	Includes one main character with a specific name for the character.	Includes more than one main character with specific names.
Setting – <i>Any reference to a place or time in a narrative.</i>	No reference to a general place or time.	Includes reference to a general place or time.	One or more references to specific places or times.	
Initiating Event – <i>Any reference to an event or problem that elicits a response from the character(s) in a narrative.</i>	An event or problem likely to elicit a response from the character is not stated.	Includes at least one stated event or problem that is likely to elicit a response from the character, but there is no response directly related to that event.	Includes at least one stated event or problem that elicits a response from the character(s).	Two or more distinct stated events or problems that elicit a response from the character(s).
Internal Response – <i>Any reference to info about a character's</i>	No overt statement about a character's psychological state.	One overt statement about a character's psychological state not causally related	One or more overt statements about a character's psychological state	

<i>psychological state including emotions, desires, feelings, or thoughts.</i>		to an event or problem.	casually related to an event or problem.	
Plan – Any cognitive verb reference that is intended to act on or solve an initiating event. It must include a "cognitive verb" that indicates a plan.	No overt statement is provided about the character's plan to act on or solve the event or problem.	One overt statement about how the character might solve the complication or problem.	Two overt statements about how the character might act on or solve the event(s) or problem(s).	Three or more overt statements about how the character might act on or solve the event(s) or problem(s).
Action/Attempt – Actions are taken by the main characters but are not directly related to the IE. Attempts are taken by the main character(s) that are directly related to the IE.	No actions are taken by the main character(s).	Actions by main character are not directly related to the IE.	Attempts by main character are directly related to the IE.	
Complication – An event that prohibits the execution of a plan or action taken in response to an initiating event.	No complications.	One complication that prohibits a plan or action from being accomplished.	Two distinct complications that prohibit plans or actions from being accomplished.	
Consequence – Resolves the problem or does not resolve the	No consequence to the action/attempt is explicitly stated.	One consequence.	Two consequences.	≥3 consequences.

problem. It must be related to the IE and be explicitly stated.				
Formulaic Markers – Any standard utterance used to mark the beginning or ending of a narrative.	No formulaic markers.	One formulaic marker.	≥ 2 formulaic markers.	
Temporal Markers	No temporal markers.	One temporal marker.	≥ 2 temporal markers.	
Causal Adverbial Clauses	No causal adverbial clauses.	One causal adverbial clause.	≥ 2 causal adverbial clauses.	
Knowledge of Dialogue – Registered by a comment or statement made by a character or by characters engaging in conversation.	No dialogue.	One character makes a comment or statement.	≥ 2 characters engage in conversation.	
Narrator evaluations – Any explanation provided in the story of justify why an action or event took place.	No narrator evaluations.	One narrator evaluation.	≥ 2 narrator evaluations.	

Table 2. Narrative Scoring Scheme (NSS)

Characteristic	Proficient	Emerging	Minimal/ Immature
Introduction	<p>Setting</p> <p>Child states general place and provides some detail about the setting. Setting elements are stated at appropriate place in story.</p> <p>Characters</p> <p>Main characters are introduced with some description or detail provided.</p>	<p>Setting</p> <p>Child states general setting but provides no detail. Description or elements of story are given intermittently through story. Child may provide description of specific element of setting</p> <p>OR</p> <p>Characters</p> <p>Characters of story are mentioned with no detail or description.</p>	<p>Child launches into story with no attempt to provide the setting.</p>
Character Development	<p>Main character(s) and all supporting character(s) are mentioned.</p> <p>Throughout story it is clear that child can discriminate between main and supporting characters. Child narrates in the first person using character voice.</p>	<p>Both main and active supporting characters are mentioned. Main characters are not clearly distinguished from supporting characters.</p>	<p>Inconsistent mention is made of involved or active characters. Characters necessary for advancing the plot are not present.</p>
Mental States	<p>Mental states of main and supporting characters are expressed when necessary for plot development and advancement. A variety of mental state words are used.</p>	<p>Some mental state words are used to develop character(s). A limited number of mental state words are used inconsistently throughout the story.</p>	<p>No use is made of mental state words to develop characters.</p>
Referencing	<p>Child provides necessary antecedents to pronouns.</p>	<p>Referents/antecedents are</p>	<p>Pronouns are used excessively. No verbal</p>

	References are clear throughout story.	used inconsistently.	clarifiers are used. Child is unaware listener is confused.
Conflict Resolution	Child clearly states all conflicts and resolutions critical to advancing the plot of the story.	Description of conflicts and resolutions critical to advancing the plot of the story is underdeveloped OR not all conflicts and resolutions critical to advancing the plot are present.	Random resolution is stated with no mention of cause or conflict OR conflict is mention without resolution. OR many conflicts and resolutions critical to advancing the plot are not present.
Cohesions	Events follow a logical order. Critical events are included, while less emphasis is place don minor events. Smooth transitions are provided between events.	Events follow a logical order. Excessive detail or emphasis provide on minor events leads the listener astray OR transitions to next event are unclear OR minimal detail is given for critical events OR equal emphasis is placed on all events.	No use is made of smooth transitions
Conclusion	Story is clearly wrapped up using general concluding statements.	Specific event is concluded, but no general statement is made as to the conclusion of the whole story.	Child stopped narrating, and listener may need to ask if that is the end.

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