Abstract

The importance of oral language is frequently acknowledged by teachers as the foundation to teaching and learning but often a neglected area of the curriculum. This action research project investigated the use of an oral narrative assessment tool as a sensitive measure of oral language. It was proposed that oral narrative assessments can reflect growth in oral language development, identify children at risk in the area of oral language and can be a useful tool to support teaching in the classroom. Prep and grade one teachers were asked to identify three students in their class with high oral language skills and three students with low oral language skills. A total of twelve students from prep and grade one were included in the study. Ten males and two females were selected and four students included in the study had a language background other than English. Each student was seen for an individual assessment of their oral narrative skills. Three narrative tasks were used in the study including a story re-tell task and two story generation tasks (a wordless picture book story tell and a single picture story tell). Narrative samples were analysed according to verbal productivity, semantic diversity, syntactic complexity and story schema. This action research project clearly demonstrated that all three oral narrative assessments reflected developmental growth in children's oral language development in the early years of schooling and differentiated between children with high oral language skills and children with low oral language skills. Teachers were accurately able to rank narrative samples and use a holistic rating scale to analyse children's oral narrative performance. They reported that this assessment technique provided detailed information on children's oral language skills that was useful for curriculum planning and supporting the development of oral language in the classroom.

Introduction

Oral Language

Oral language is often viewed as the foundation to teaching and learning (Fillmore & Snow, 2000).The development of literacy has been closely linked to the development of oral language, with written language development building on and utilising children's oral language competence (Catts, 1993). Oral language is however often described by teachers as the poor cousin to other areas of the curriculum. Teachers have reported neglecting the assessment and teaching of oral language in the classroom due to their perceived lack of knowledge in the area, a crowded curriculum and a scarcity of assessment tools to inform teaching (Roberts, 2003).

Oral Language Assessment

The use of standardized assessments to assess oral language at a word or sentence level have been criticized within the literature for fragmenting a teacher's understanding of children's oral language abilities (Jitendra & Kamceenui, 1993 as cited in Gummersall & Strong, 1999; Stockman, 1996) where children are often asked to repeat or produce unrelated sentences in the absence of any meaningful context (Gummersall & Strong, 1999 p. 152). It is also well documented that the use of standardised tests to assess children from Language Backgrounds Other Than English are biased (Damico, 1991; Wilson, Wilson & Craig, 2000). Children from different cultural or linguistic backgrounds may perform more poorly on standardized measures relative to monolingual children because of variations in life experience, socialization practices and early literacy experiences (Stockman, 2000; Guiterrez-Clellen & Pena, 2001).

Oral Narratives

Oral narrative assessment has been described as an authentic assessment tool for sampling children's spoken language skills (Gummersall & Strong, 1999; Munoz et al., 2003; Gazella & Stockman, 2003). Oral narrative assessment reflects the complex and dynamic nature of language processing and allows language to be observed and analysed at a discourse level where content, form and use are integrated across multiple levels of processing (Westby, 1984). Within an oral narrative, the speaker must generate the content of the story, structure the events according to narrative script, generate grammatical sentences to express the meaning and intent of the information, select words that fit the context of the sentence and that establish the correct relationships across boundaries of sentences and express the information with fluency and intelligibility. Narratives are a part of everyday life, in casual conversations with others as well as in the more structured setting of school (Schneider & Winship, 2002, p372). Such measures make it possible to consider the social context in which communication occurs and how language is used by different cultures. Tasks can be selected that are relevant to the classroom and skills that are relevant to the learner and necessary for success in school (Laing & Kamhi, 2003).

Oral narratives are reported to be sensitive to age and developmental changes (Westerveld, Gillon & Miller, 2004, Fey et al., 2004). Narrative skill development is thought to form a bridge between oral language and literacy by providing examples of decontextualised, extended, cohesive discourse that students will encounter in written texts, both fictional and expository (Westby, 1989; Norris & Hoffman, 1993) and have been identified as an important predictor of school success (Paul & Smith, 1993; Gillam, Pena & Miller, 1999).

Oral narrative assessment is also useful in the identification of children with language learning difficulties (Norbury & Bishop, 2003; Kaderavek & Sulzby, 2000; Westerveld, Gillon & Miller, 2004). Children with specific language impairment have been found to produce shorter, less cohesive stories that are syntactically simple and contain frequent errors of syntax, semantics and morphology (Liles et al., 1995).

Oral Narrative Tasks

Whilst various stimuli are often used to elicit oral narratives including; verbal prompts, story stems, videos, picture sequences, wordless picture books and single pictures (Hedberg & Westby, 1993; Hughes et al., 1997 as cited in Pearce, 2003) it has been identified that different narrative assessments produce different quality narratives. James (1995) noted a higher level of narrative and subordination index with a single picture stimulus and technique than using a wordless picture book. However Pearce (2003) found that children produced longer, more informative and more complex stories for a wordless picture book than for a single picture scene. She proposed in her research that children may find generating stories from a single picture scene more difficult due to the absence of a visual script or event structure. Liles (1993) reported that children produce better narratives in story retelling tasks than story generation tasks and Westerveld et al. (2004) found narratives in comparison to conversation elicited more syntactically complex language samples.

Variation in narrative samples across different assessment stimuli has significant implications for the assessment of narrative skills. Careful selection of story stimuli needs to be considered. The use of appropriately varied stimuli to elicit more than one narrative will provide a representative sample of children’s oral language skill development and provide important information to inform teaching and the development of children’s oral narrative skills.

Oral Narrative Analysis

Research investigating narrative assessment has identified many different levels of analysis that can provide information on children's story telling skills. Stories can be analysed at a discourse or macrostructural level, where the overall story schema/grammar (Stein & Glenn, 1979; Hedberg & Westby, 1993; Fey et al., 2001) or story cohesion (Schneider & Winship, 2002; Norbury & Bishop, 2003) can be analysed. Microstructural analysis can provide information on children's sentence level processing through the measurement of story productivity (e.g. number and type of words used) and sentence organisation (e.g. length and complexity of sentences, grammatical errors in sentences). The majority of these measures are analytic and quantitative measures of story performance.

A potential limitation of narrative assessment and these types of analyses is the time consuming nature of recording and scoring narratives. For narrative assessment to be considered a viable and useful tool to assess oral language in the classroom, it needs to be a practical assessment tool that is relatively quick and easy to administer and score. McFaddden & Gillam (1996) found that teachers were able to apply a holistic rating procedure to identify and describe narratives of children with and without language impairment. These measures correlated with the more time consuming quantitative measures used in clinic settings by speech pathologists. Schneider & Winship (2002) found that untrained adult judges were reliably able to rank stories from best to worst and were sensitive to story features commonly used in narrative analyses.

Action Research Project

This action research project aims to identify whether oral narrative assessment can:

- reflect growth in children's oral language development
- assist in the identification of student's at risk in the area of oral language
- provide useful information for supporting the development of children's use of oral language in the classroom.

Hypothesis

Narrative assessment reflects growth in oral language development, differentiates between children with High Oral Language (HOL) and Low Oral Language (LOL) skills and can be a useful tool to support teaching in the classroom.

During this investigation three different types of narrative assessments will be used to ascertain the differences in story quality produced. A range of analyses will be used including analytic and holistic procedures to ascertain the type of information that can be provided by each type of analysis.

Method

Participants:

Twelve students from prep and grade one were included in the study. Prep and Grade one teachers from a Catholic school in the Archdiocese of Melbourne were asked to identify three children from their grade with high oral language skills (HOL) and three children who were at risk for oral language difficulties (LOL). Details of the children selected in each group are shown in Table 1 & 2.

Table 1: Individual Participant Details

Student	Grade	HOL/LOL	Age (months)	Sex	LBOTE
JV	Prep	LOL	57	M	Spanish
BA	Prep	LOL	66	M	Greek
PP	Prep	LOL	70	M	Cantonese
AG	Prep	HOL	70	F	-
JM	Prep	HOL	62	M	-
MV	Prep	HOL	64	M	-
AD	Grade 1	LOL	76	M	-
BB	Grade 1	LOL	80	F	Ewe
LH	Grade 1	LOL	83	M	-
OZ	Grade 1	HOL	81	M	-
CM	Grade 1	HOL	82	M	-
AS	Grade 1	HOL	81	M	-

Table 2: Summary of Participant Groups

	Grade	Mean Age	Range	Sex (M : F)	LBOTE
HOL	Prep	64.33	57 - 70	3:0	100%
LOL	Prep	65.33	62 - 70	2:1	0%
HOL	Grade 1	79.67	76 - 83	2:1	33%
LOL	Grade 1	81.33	81 - 82	3:0	0%

Teachers were asked to select children for the HOL and LOL groups based on their observations of the oral language abilities in the classroom across a range of different tasks and contexts. Teacher reports have been documented as generally accurate in identifying academic and language achievement in both mainstream children (Records & Tomblin, 1993; Salvesen & Undheim, 1994 as cited in Restrepo, 1998) and LBOTE children in particular, Hispanic children (Frontera & Horowitz, 1995 as cited in Restrepo, 1998).

Teachers also used a formal oral language assessment, The Record of Oral Language (Clay et al., 1983) that is administered to all students in prep and grade one as part of the CLaSS literacy strategy operating in Catholic Primary Schools in the Archdiocese of Melbourne. These results are summarised in Figure 1.

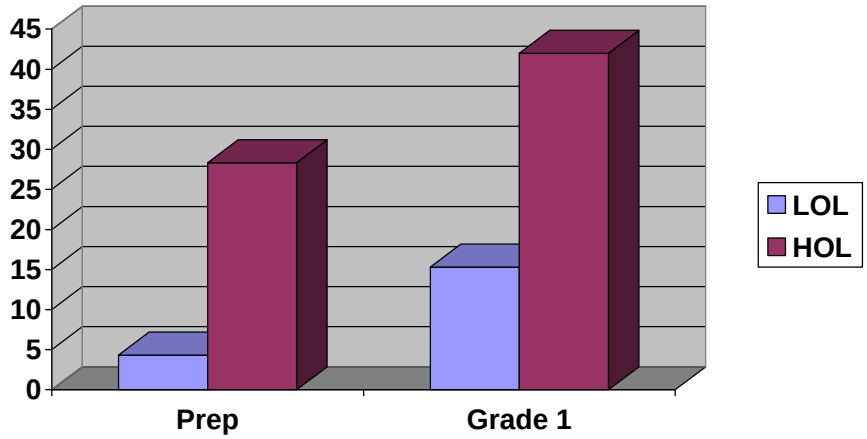


Figure 1: Record of Oral Language results

Procedure:

Each student was seen individually in a quiet 1:1 testing environment in the school. Before the narrative assessment protocol was administered, rapport was established with each student through informal conversation including questions about what activities the student liked doing at school and what activities they enjoyed doing at home.

Three different elicitation tasks were included in the narrative assessment protocol including a story re-tell task, a story generation task using a wordless picture book and a story generation task using a single picture stimulus. A range of tasks were chosen to provide a more representative language sample for analysis and to investigate the variability across different tasks reported in the research literature.

Story Retell Task

The Bus Story (Renfrew, 1991) is a published assessment tool and is a widely used measure of narrative ability by speech pathologists. It is an excellent predictor of persistent language impairment (Bishop & Edmundson, 1987 as cited in Norbury & Bishop, 2003) as well as a strong predictor of later language and literacy ability (Stothard et al, 1998 as cited in Norbury & Bishop, 2003). During this assessment task, students were required to listen to a story whilst looking at pictures. Once the story had been told, students re-told the story in their own words. This task requires the child to re-tell a story told by an adult rather than generate their own story. This expressive language task may be influenced by the child's comprehension of the story and their ability to hold information in short term memory to retell the events.

Story Generation Task (using a wordless picture book)

The wordless picture book, Frog where are you? (Mayer, 1969) was used to elicit a narrative sample from each student. This book was chosen because it has been used extensively in researching narratives produced by typically developing children (Bamberg and Damrad-Frye, 1991, Berman and Slobin 1994 as cited in Norbury & Bishop, 2003) as well as children with specific language impairment (Van Der Lely 1997, Botting 2002 as cited in Norbury & Bishop, 2003). The book presents a hierarchically organised story with a main episode (a boy losing, searching for and finding his frog) and as many as 13 embedded episodes (Berman & Slobin, 1994 as cited in Munoz, Gillam, Pena, Gully-Faehnle, 2003). A wordless picture book provides the visual representation of the story schema through pictures but the child is required to generate the story himself/herself. Students were asked to look through all the pictures in the book and to think about a story to tell. When the students finished reviewing the book, they were directed back to the first page and were instructed to tell a story while looking at the pictures. (See Appendix 1 for the administration procedure).

Story Generation Task (using a single picture stimulus)

A single picture stimulus was used to elicit a narrative sample from each student. The picture scene depicted a child and her father standing outside a house, waving good-bye to her mother who was leaving in the car. This picture was selected from 'Think It, Say It' (Martin, 1990). A single picture stimulus provides a starting idea or event for a story and requires students to generate possible scripts from long term memory or create a new idea to invoke a story structure and then to organise the story events within that structure (Naremore, 1997). Students were asked to look at the picture and think of a story they could tell. (See Appendix 1 for the administration procedure).

Analysis:

The data was initially coded and analysed by a speech pathologist. The stories were then given to teachers who ranked and analysed the stories using a holistic rating scale.

Coding of the data:

Narrative samples were tape recorded and transcribed (See Appendix 2 for the transcription procedures). Each narrative sample was segmented into T-units (Hunt, 1965). A T-unit (minimal terminal unit) is a grammatical sentence containing one main clause and any attached or embedded clauses or non-clausal structures and modifiers. A T-unit can be used to measure expressive language syntax of school-age children, adolescents and adults and is more sensitive than Mean Length of Utterance (MLU) to the types of language differences seen after five years, such as phrasal embedding and various types of subordinate clauses (O'Donnell et al., 1967, as cited in Owens, 1996). T-units with unintelligible words or incomplete utterances were excluded from the analysis (Restrepo, 1998). Mazes were also excluded from the analysis (Fletcher, 1991).

The dependent measures used in this action research project included (see Appendix 2 for an example of a narrative sample with several of the following measures calculated):

Verbal productivity: The total number of words (TNW) was used as an indicator of the child's speaking productivity (see Appendix 2 for instructions on counting words per T-unit).The number of T-units (NTU) was used as an indicator of story length. Previous studies have indicated differences on these linguistic measures between children with language impairments and children with typically developing language (Boudreau & Hedberg, 1999).

Semantic Diversity: The number of different words (NDW) was used as an indicator of children's expressive vocabulary and variability in their word usage. Previous studies have indicated that NDW can distinguish between children with language impairments and children with typically developing language (Miller, 1996 as cited in Westerveld, Gillon & Miller, 2004).

Syntactic Complexity: The mean length of T-unit (MLTU) was used as a measure of sentence length. The number of clauses per T-unit (C/TU) is described in the literature as an index of subordination (Scott, 1988) and was used as a measure of sentence complexity (see Appendix 2 for instructions on counting clauses per T-unit). The percentage of grammatical errors per T-unit (GE/TU) was used as a measure of syntactic competency (see Appendix 2 for instructions on counting grammatical errors per T-unit). Restrepo (1998) found that the number of errors per T-unit helped identify children with language impairments with a high degree of sensitivity and specificity.

Story Schema: A subjective quantitative measure of story quality (FEY) was used to measure story content, story organisation and language sophistication (Fey et al., 2001). Stories were ranked on a scale of 0-3 in four different areas; characters, physical setting, ending and language sophistication and a score of 0-6 for plot complexity. A total of 18 points could be gained by children for their story telling (see Appendix 2 for a description of the rating scale).

Teacher Ranking & Description: Teachers were given the transcribed stories from their grade with no identifying information and were instructed to rank the stories from worst (ranking = 1) to best (ranking =6). They performed this task blind (i.e. they were not aware of who the students were who had told each story) so that their prior knowledge of the student did not bias their judgement of the story quality for the purposes of this task. They were then given a descriptive rating scale to fill in for each story to identify and describe each story according to a number of different story elements (see Appendix 2 for details).

Results

The results are presented as group means and have been organised according to the different aspects of the hypothesis.

1. Do narrative assessments reflect developmental growth in student's oral language development?

A comparison of group data from Prep (6 students) and Grade one (6 students) was used to identify whether change occurred with the following quantitative dependent measures; including total number of words (TNW), number of different words (NDW), number of T-units (NTU), mean length of T-unit (MLTU), number of clauses per T-unit (C/TU), percentage of grammatical errors per T-unit (GE/TU) and story schema analysis (FEY) across different narrative tasks. Group means were calculated (see Table 3 for results).

Table 3: Comparison of language measures across grades and narrative tasks

	Prep	Grade 1
The Bus Story Re-tell		
TNW	112.23	198.00
NDW	61.17	98.00
NTU	19.50	27.17
MLTU	8.59	11.03
C/TU	1.69	1.93
GE/TU	1.13	0.59
FEY	6.83	10.33
Wordless Picture Book Story Tell		
TNW	157.67	349.33
NDW	71.67	128.17
NTU	28.50	56.00
MLTU	7.99	9.42
C/TU	1.46	1.59
GE/TU	0.44	0.19
FEY	7.83	17.33
Single Picture Story Tell		
TNW	42.00	158.17
NDW	27.83	67.17
NTU	7.50	21.00
MLTU	7.74	9.96
C/TU	1.46	1.83
GE/TU	0.38	0.09
FEY	5.00	10.50

Change in group means was evident across all measures and narrative tasks between the prep and grade one groupings. A positive change was evident for all measures except for the percentage of grammatical errors per T-unit measure. The significance of these changes or effect sizes have not been measured as statistical analysis was not conducted during this action research project due to the small sample sizes. See Figure 2-4 for a visual representation of the growth across language measures in the three different narrative tasks.

Figure 2: Bus Story Re-tell

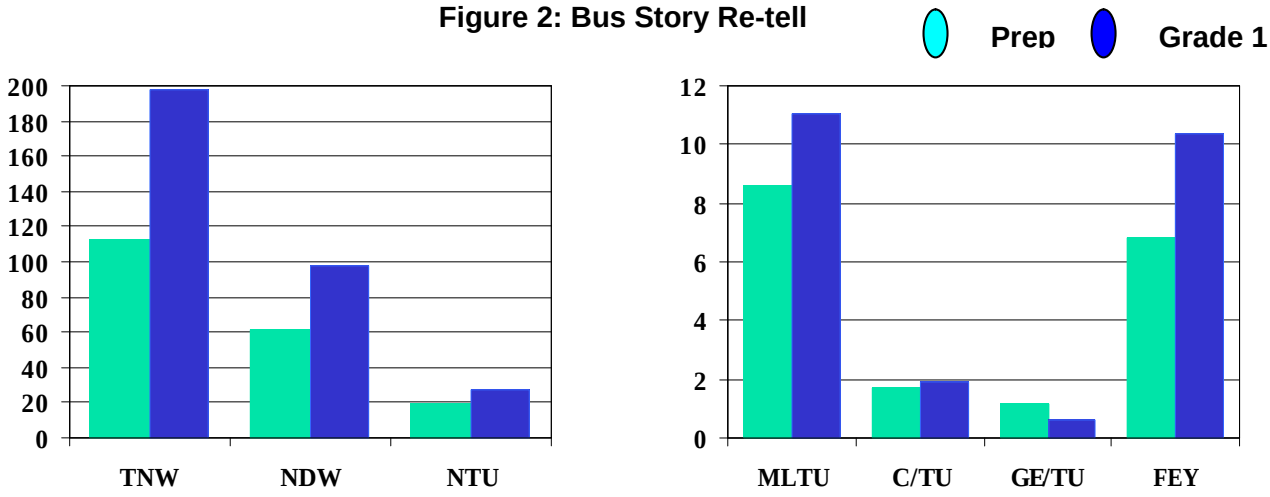


Figure 3: Wordless Picture Book Story Tell

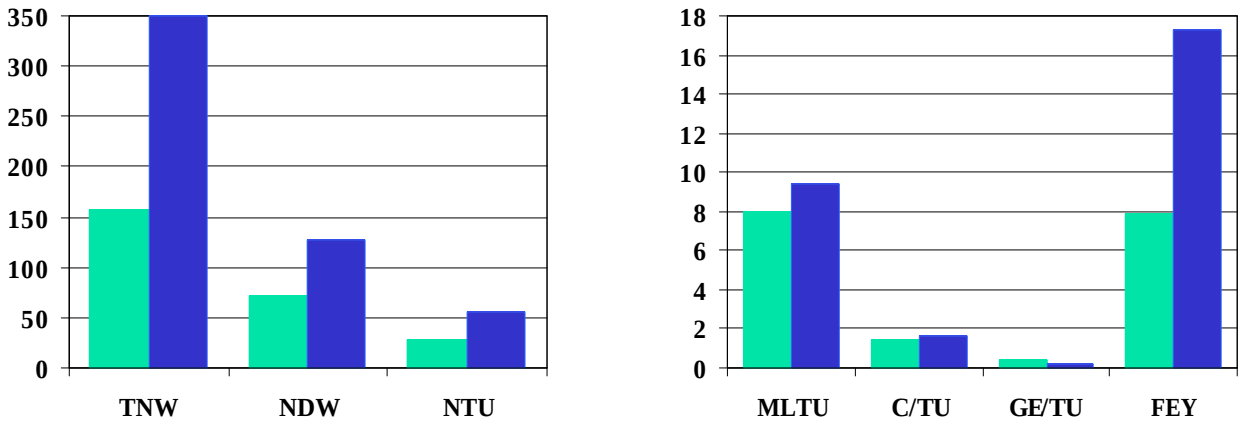
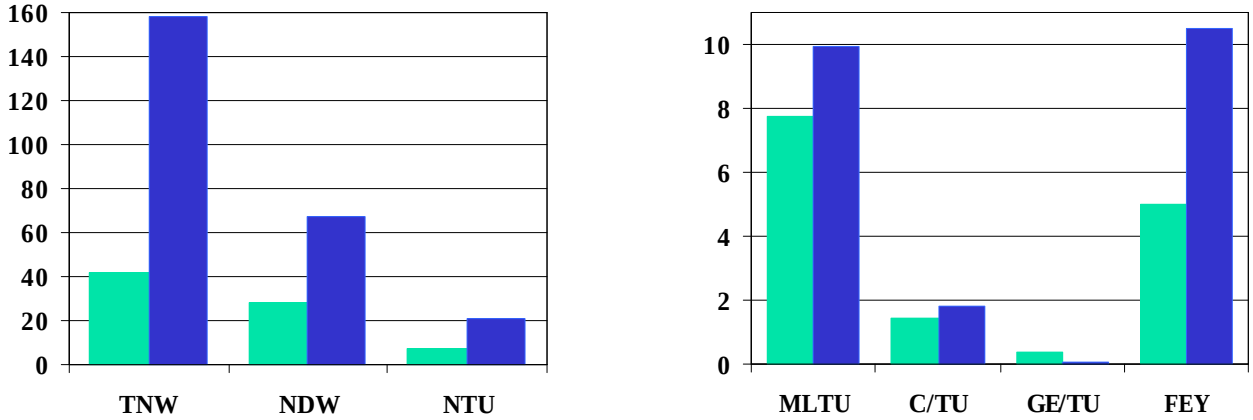


Figure 4: Single Picture Story Tell



2. Do narrative assessments identify students at risk in the area of oral language?

A comparison of group data across language ability groupings in both prep and grade one was used to identify whether the following quantitative dependent measures including total number of words (TNW), number of different words (NDW), number of T-units NTU), mean length of T-unit (MLTU), number of clauses per T-unit (C/TU), percentage of grammatical errors per T-unit (GE/TU) and story schema analysis (FEY) could discriminate between students identified with Low Oral Language (LOL) and students identified with High Oral Language (HOL). Group means were calculated (see Table 4 for results).

Table 4: Comparison of language measures across language abilities, grades and narrative tasks

	Prep		Grade 1	
	LOL	**HOL**	**LOL**	**HOL**
The Bus Story Re-tell				
TNW	61.67	101.33	124.33	147.33
NDW	29.33	63.67	59.33	77.33
NTU	12.67	13.67	19.00	16.33
MLTU	4.88	7.41	6.53	9.00
C/TU	1.03	1.32	1.16	1.55
GE/TU	1.05	0.17	0.55	0.08
FEY	2.33	9.00	5.00	10.67
Wordless Picture Book Story Tell				
TNW	73.33	169.00	170.33	358.00
NDW	31.67	80.00	59.33	137.67
NTU	14.67	27.67	33.33	45.33
MLTU	4.99	5.99	5.43	7.98
C/TU	0.89	1.14	0.92	1.32
GE/TU	0.38	0.10	0.15	0.08
FEY	2.67	10.33	9.33	16.00
Single Picture Story Tell				
TNW	16.67	50.67	42.67	231.00
NDW	11.00	33.67	25.00	84.33
NTU	4.00	7.00	7.00	28.00
MLTU	4.12	7.24	5.84	8.23
C/TU	0.93	1.05	1.11	1.44
GE/TU	0.33	0.10	0.04	0.10
FEY	2.67	4.67	4.67	11.67

A difference in group means was evident across all measures, grades and narrative tasks between LOL and HOL groupings. The HOL groups in both prep and grade one outperformed the

LOL groups across all measures, except for the grade one groups on the single picture story tell task. The LOL group had a lower group mean for number of grammatical errors per T-unit than the HOL group. This is an unexpected result and may be explained by the small language samples obtained for this task (i.e. only a mean of 7 T-units per sample for the LOL group in comparison to a mean of 19 for the story re-tell and 33 for the wordless picture book story tell. In both these tasks the LOL group received a higher mean for number of grammatical errors per T-unit than the HOL group). It could be argued that this small story length may not provide a representative sample of the student's language abilities. See Figure 5-7 for a visual representation of the difference in group means between the LOL and HOL groupings in prep and grade one across language measures and narrative tasks.

Figure 5: Bus Story Re-tell

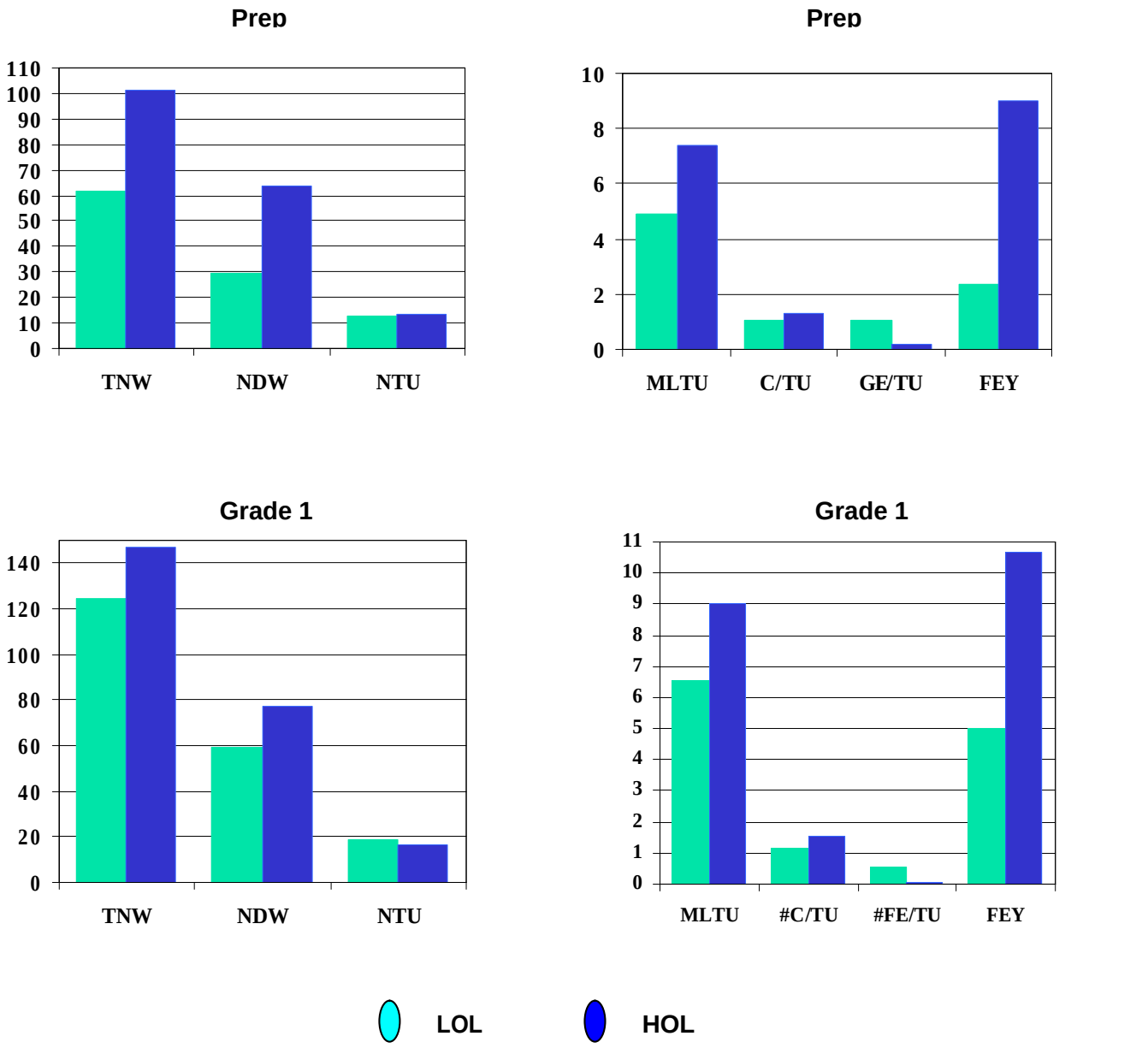


Figure 6: Wordless Picture Book Story Tell

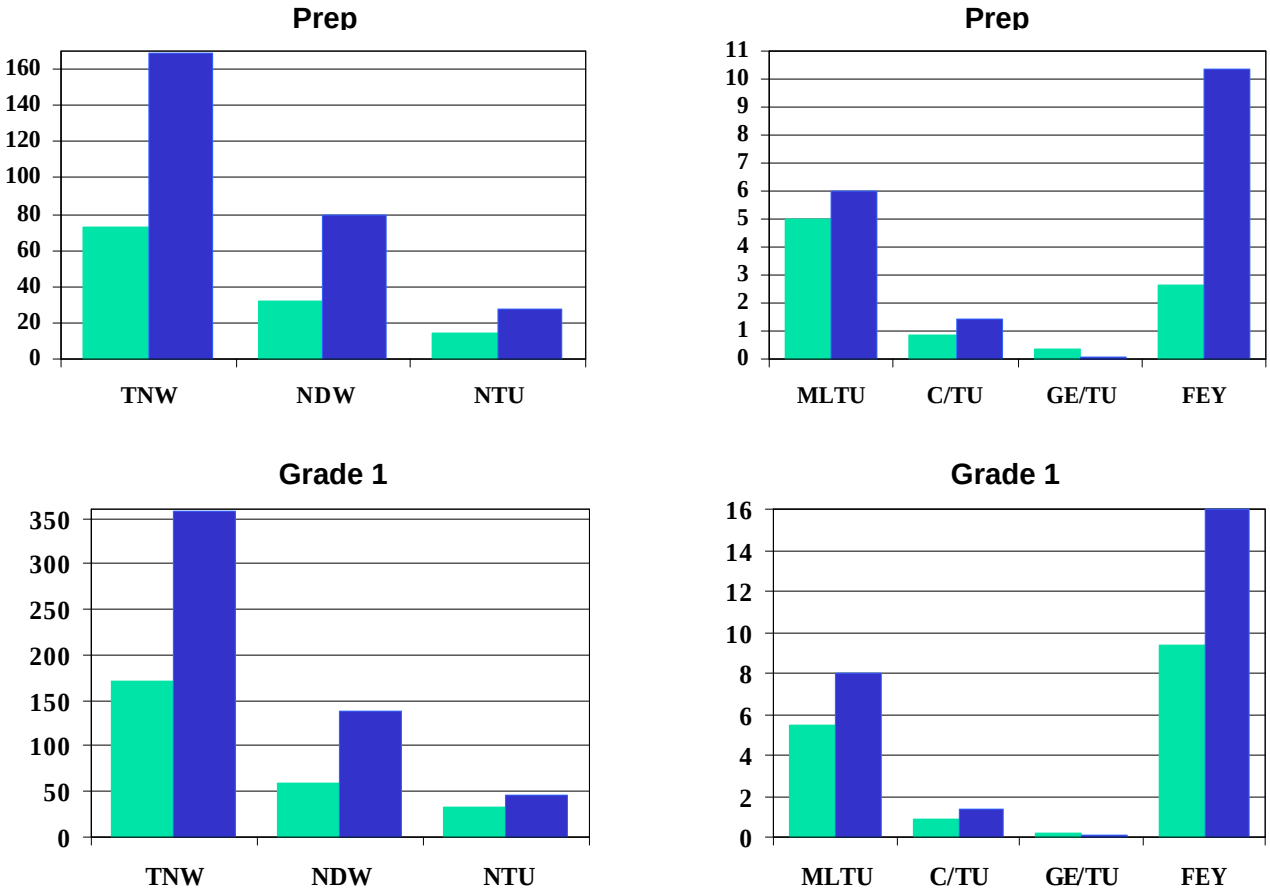
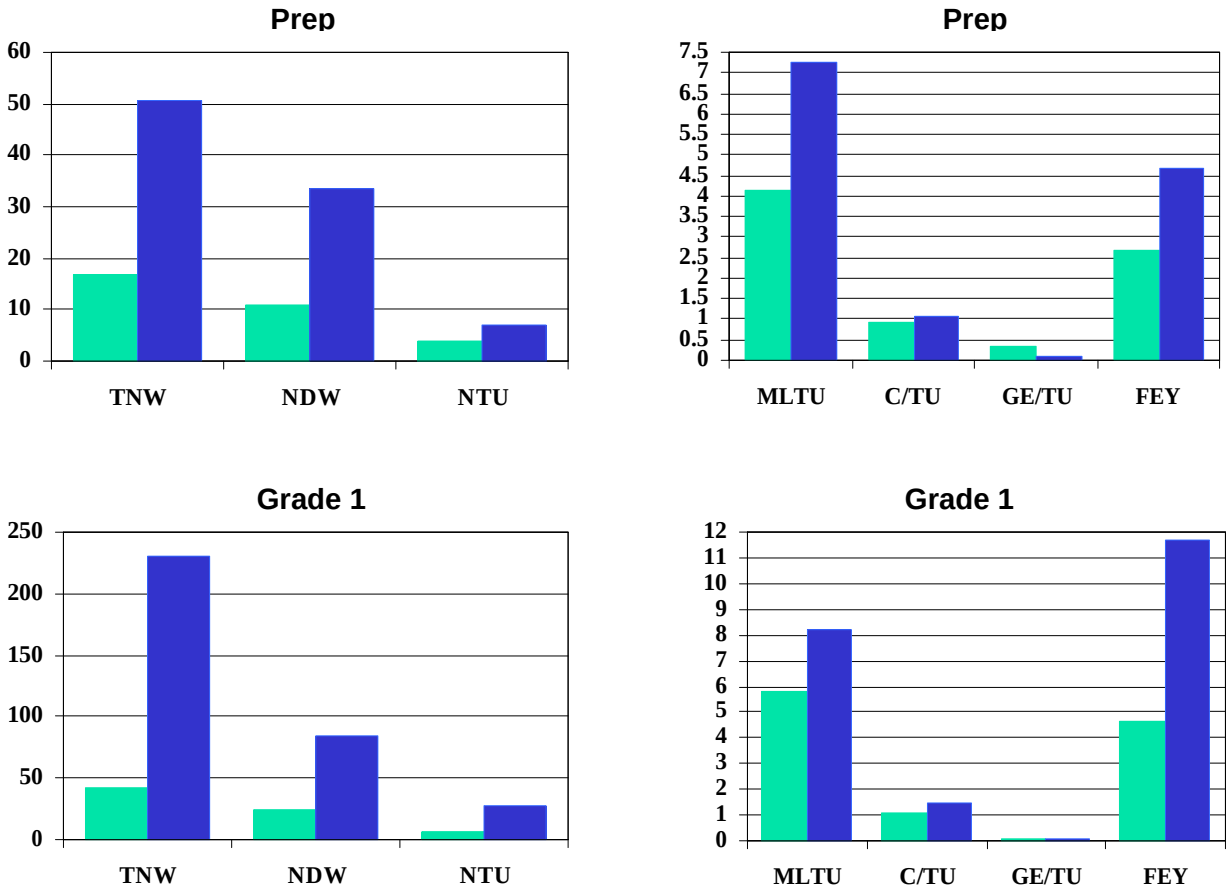


Figure 7: Single Picture Story Tell



3. What information can be provided from a narrative assessment and how can this support teaching in the classroom?

The wordless picture book story tell narrative task was used to compare individual student quantitative data including total number of words (TNW), number of different words (NDW), number of T-units NTU), mean length of T-unit (MLTU), number of clauses per T-unit (C/TU), percentage of grammatical errors per T-unit (GE/TU) and story schema analysis (FEY) with teacher rankings of the students' stories in prep and grade one (see Table 5 for results). Both the prep and grade one teachers were reliably able to rank the LOL stories in the lowest three and rank the HOL stories in the highest three in comparison to the quantitative measures.

Table 5: Comparison of quantitative narrative measures for the wordless picture book story tell task and teacher ranking of narrative samples in Prep and Grade 1.

Prep												
	OL	**Age**	**Sex**	**LBOTE**	**TR**	**TNW**	**NDW**	**NTU**	**MLTU**	**C/TU**	**GE/TU**	**FEY**
BA	LOL	66	M	Greek	1	44	15	8	5.50	1.00	0.38	1
JV	LOL	57	M	Spanish	2	40	24	9	4.44	0.78	0.33	2
PP	LOL	70	M	Cantonese	3	136	56	27	5.04	0.89	0.44	5
AG	HOL	70	F	-	4	110	64	19	5.79	1.16	0.00	8
JM	HOL	62	M	-	5	125	62	22	5.69	1.09	0.14	8
MV	HOL	64	M	-	6	272	114	42	6.48	1.17	0.17	15

Grade 1												
	OL	**Age**	**Sex**	**LBOTE**	**TR**	**TNW**	**NDW**	**NTU**	**MLTU**	**C/TU**	**GE/TU**	**FEY**
BB	LOL	80	F	Ewe	1	107	25	40	2.68	0.60	0.03	9
AD	LOL	76	M	-	2	201	74	33	6.09	1.06	0.12	8
LH	LOL	83	M	-	3	203	79	27	7.52	1.11	0.30	11
OZ	HOL	81	M	-	4	241	98	28	8.61	1.5	0.00	14
CM	HOL	82	M	-	5	312	128	42	7.43	1.24	0.12	17
AS	HOL	81	M	-	6	521	187	66	7.90	1.23	0.11	17

Teachers were then given a descriptive rating scale to fill in for each story to identify and describe each story according to a number of different story elements. A comparison of the Teacher Descriptive Rating Scale and the quantitative Story Schema Analysis (FEY) indicated that teachers were able to rate narratives according to a range of different story elements. Teachers were able to identify narratives that had only few story elements and those that had more complete story elements and describe the different story qualities using the descriptive rating scale (see Table 6). Teachers reported that they found the Descriptive Rating Scale useful to assist in the analysis of different narrative samples and reported that the scale provided them with indicators for assessment and curriculum planning.

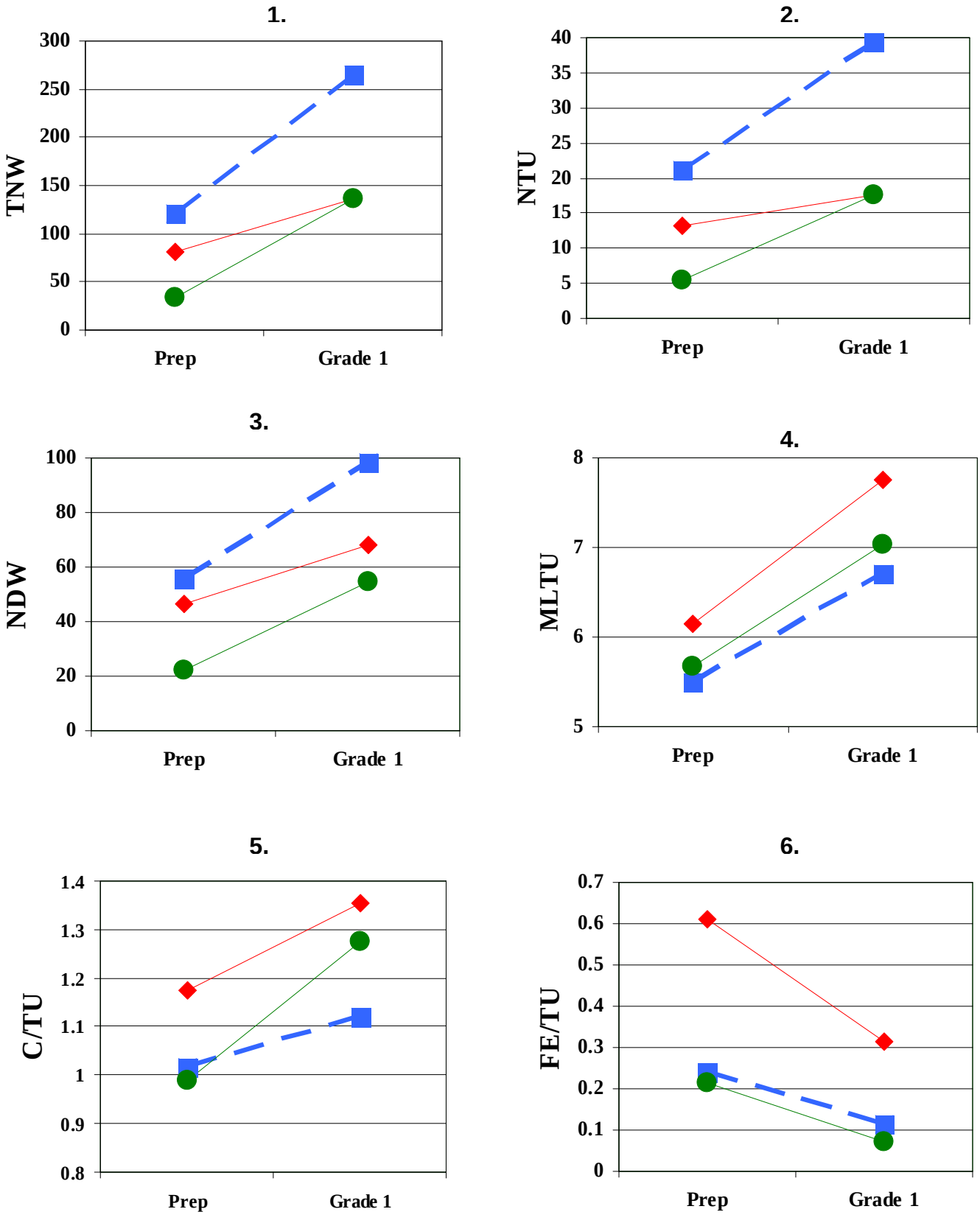
Table 6: A Comparison of the Teacher Descriptive Rating Scale and the Fey's Story Schema Analysis for both LOL and HOL students in Prep & Grade 1

	Teacher Descriptive Rating Scale										Fey Story Schema					
	S	**Ch**	**Se**	**L**	**E**	**V**	**SS**	**G**	**NS**	**Total**	**S**	**Ch**	**E**	**P**	**LF**	**Total**
TOTAL	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**4**	**36**	**3**	**3**	**3**	**6**	**3**	**18**
Prep LOL																
BA	0	0	1	0	0	0	0	0	0	1	0	0	0	1	0	1
JV	0	0	1	0	2	0	0	1	1	5	0	0	0	2	0	2
PP	0	1	2	2	1	1	0	0	1	8	0	1	1	2	1	5
Prep HOL																
AG	2	2	2	2	3	2	2	3	2	20	1	1	2	3	1	8
JM	3	2	2	2	3	3	2	3	3	23	3	0	0	4	1	8
MV	3	2	3	3	2	3	2	3	3	24	3	2	2	6	2	15
Grade 1 LOL																
BB	0	1	1	1	1	1	0	1	2	8	1	1	2	3	2	9
AD	0	1	2	1	1	1	0	1	1	8	0	1	2	4	1	8
LH	2	1	2	2	1	1	2	1	0	12	3	1	1	4	2	11
Grade 1 HOL																
OZ	2	1	2	2	2	2	2	2	2	17	3	1	2	6	2	14
AS	2	1	2	3	3	3	3	2	3	22	3	3	2	6	3	17
CM	2	4	3	3	2	3	3	3	3	26	3	3	2	6	3	17

4. Are there any differences in story quality across different types of narratives?

During this investigation three different types of narrative assessments; a story re-tell, wordless picture book story tell and single picture story tell were used. A comparison of group means for prep and grade one children across a number of quantitative measures including total number of words (TNW), number of different words (NDW), number of T-units NTU), mean length of T-unit (MLTU), number of clauses per T-unit (C/TU), percentage of grammatical errors per T-unit (GE/TU) and story schema analysis (FEY) was conducted to ascertain whether there were differences in story quality produced (see Figure 8 for results). The results indicate that both prep and grade one children produced the greatest number of words, T-units and number of different words with a wordless picture book story tell. Prep and grade one children produced the least number of words, T-units and number of different words with a single picture story tell. Prep children produced longer (MLTU) more complex (C/TU) sentences in a story re-tell task and produced the shortest and least complex sentences with a single picture story tell. Grade one children produced longer (MLTU) more complex (C/TU) sentences in a story re-tell task and produced the shortest and least complex sentences with a wordless picture story tell. Both prep and grade one children produced the least number of grammatical errors with a single picture

story tell and the most grammatical errors with a story re-tell task. Prep and grade one children included the most story schema elements with a wordless picture book story tell. Prep children included the least story schema elements with a single picture story tell and grade one children included the least story schema elements with a story re-tell task.



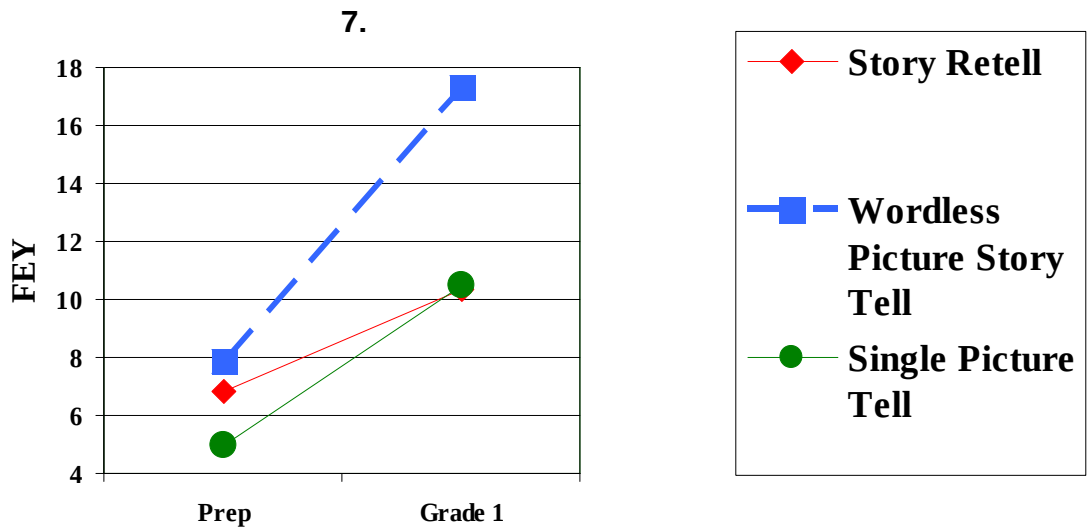


Figure 8: A comparison of group means for prep and grade one children on a number of quantitative measures across the three different narrative assessments (story re-tell, wordless picture book story tell and single picture story tell).

Discussion

This action research project clearly demonstrated that different oral narrative assessments can reflect developmental growth in children's oral language development in the early years of schooling. A positive change was evident in all three narrative assessments across all measures including verbal productivity (TNW and NTU), semantic diversity (NDW), syntactic complexity measures (MLTU and C/TU) and story schema (FEY) between the prep and grade one groupings except for the percentage of grammatical errors per T-unit measure. A decrease in this measurement across grade levels would however also be expected as children's linguistic skills develop and they produce less grammatical errors in their oral language as they grow older. These results support the hypothesis and are similar to other results reported in the literature (Westerveld, Gillon & Miller, 2004, Fey et al., 2004). Caution should be taken however when generalising these results as only small numbers of students were included in each year grouping (6 students per group) and the study was limited to analysis of language skills in prep and grade one. For these results to be generalised, a larger cohort of children across a wider age range would need to be included in future research.

All narrative assessments were able to differentiate between the children with LOL and HOL skills in prep and grade one across all language measures. Children identified with LOL skills in both prep and grade one produced shorter stories with fewer story elements and less complex sentences. These results are similar to other results reported in the literature (Liles et al., 1995;

Norbury & Bishop, 2003; Kaderavek & Sulzby, 2000; Westerveld, Gillon & Miller, 2004) and support the current hypothesis. The greatest difference in language measures between the HOL and LOL groupings for the story re-tell task was evident in the prep group in comparison to the grade one group. This difference occurred across all measures except the number of clauses per T-unit. The greatest difference in language measures between the HOL and LOL groupings for the story generation tasks (i.e. the wordless picture story tell and the single picture tell) was evident in the grade one group in verbal productivity, semantic diversity, syntactic complexity and story schema. These results perhaps suggest that the story re-tell task is a more sensitive measure for use with prep children and story generation tasks may be more sensitive for use with grade one children when identifying children at risk for oral language difficulties. Again caution should be used when generalising these results as only small numbers of students were included in each language ability group (3 students per group). It should also be noted that the significance of these results has not been measured as statistical analysis was not conducted. Comparison of groupings was solely based on group means across all measures.

The third aspect of the hypothesis suggested that oral narrative assessments can be a useful tool to support teaching in the classroom. This issue was addressed in the action research project by asking teachers to rank the narrative samples from their grade to identify if they were able to discriminate between those children with LOL and HOL skills. This task was performed blind (i.e. the narrative samples had no identifying information on them) to ascertain whether teachers could differentiate between children's narratives without using prior knowledge of the children. Both the prep and grade one teachers were reliably able to rank the LOL stories in the lowest three and rank the HOL stories in the highest three in comparison to the speech pathologist's quantitative analysis results. The teachers reported that this was a quick and easy method of sorting through the stories. This method of analysis has been referred to in the literature as a holistic/ global analysis and has been found to be a reliable measure (Schneider & Winship, 2002). The teachers however reported that in isolation this method of analysis provided limited information on children's story telling abilities.

A Teacher Descriptive Rating Scale was then devised and trialled during the action research project. This rating scale could be described as a mixture of holistic and analytic in nature. A number of different story elements were identified and operationalised through the use of a 5 point rating scale. Teachers were instructed to fill in the rating scales based on their judgements of each story. A comparison of the Teacher Descriptive Rating Scale and the quantitative Story Schema Analysis (FEY) indicated that teachers were generally able to rate narratives according to a range of different story elements. Teachers were able to identify narratives that had only few story elements and those that had more complete story elements and describe the different story qualities using the descriptive rating scale (see Table 6). They reported that this analysis technique was easy to fill in and only took approximately 5 minutes to

complete for each student. Teachers reported that they found the ranking of the stories useful for identifying children with LOL and HOL skills but found the Descriptive Rating Scale much more useful when analysing the different narrative samples to support their teaching of oral language in the classroom. When the results of the study were discussed with the teachers involved, they commented on the usefulness of the different narrative assessments and were surprised at the range of information that could be gained from analysing children's story telling skills. They reported that the Teacher Descriptive Rating Scale was a quick and easy measure to use in the classroom for a range of children but recognised that more in depth quantitative measures may be necessary when assessing children who are at risk in the area of oral language.

Analysis of the individual profiles of children's narrative skills highlighted that the four children with language backgrounds other than English (LBOTE) who were included in the study obtained the lowest scores on the language measures. Whilst narrative assessment has been acknowledged as an authentic assessment task (Gummersall & Strong, 1999; Munoz et al., 2003; Gazella & Stockman, 2003) and culturally sensitive (Munoz et al., 2003) caution should be taken when generalising these results when using this assessment as a diagnostic tool. The difficulty in differentiating between language disorder and language difference in LBOTE populations has been widely documented. A child's limited test performance may reflect different learning experiences or a lack of educational opportunity and not necessarily language learning difficulties (Stockman, 2000; Guiterrez-Clellen & Pena, 2001). It is suggested that narrative assessment is not used in isolation as a diagnostic tool for children from language backgrounds other than English. Instead oral narrative assessment should be used as a formative tool in conjunction with other oral language assessments to profile children's strengths and challenges to inform teaching and curriculum planning.

Finally, like other research studies variability was evident between the different narrative tasks used in this study. Like Pearce (2003), this study found that children included more story elements in their stories with a wordless picture book in comparison to a single picture tell. There was however differences noted between prep and grade one children. Prep children included the least story schema elements with a single picture story tell and grade one children included the least story schema elements with a story re-tell task. What is evident from this variability between different story stimuli is the need to include more than one narrative within assessment protocols to provide a representative sample of children's oral language skill development.

In conclusion, through participation in this action research project teachers recognised that using oral narrative assessments can assist in profiling children's oral language development, assist in the identification of children at risk in the area of oral language and provide a greater depth of knowledge about student's oral language to inform their teaching in the classroom.

References

Boudreau, D. M., & Hedberg, N. L. (1999) A comparison of early literacy skills in children with specific language impairment and their typically developing peers. *American Journal of Speech Language Pathology, 8, 249-260.*

Catts, H. (1993) The relationship between speech-language impairments and reading disabilities. *Journal of Speech and Hearing Research, 36, 948-958*

Clay, M. M., Gill, M., Glynn, T., McNaughton, T. & Salmon, K. (1983) *Record of oral language and biks and gutches.* Auckland, New Zealand: Heinemann

Damico, J. S. (1991). Developing and using a second language. In Hamayan, E. & Damico, J. (Eds.), *Limiting bias in the assessment of bilingual students.* Austin, TX: PRO-ED.

Fey, M., Catts, H., & Proctor-Williams, K. (2001, November). *Narrative project.* ASHA National Convention, New Orleans, LA.

Fey, M. E., Catts, H. W., Proctor-Williams, K., Tomblin, J. B., & Zhang, X. (2004). Oral and Written Story Composition Skills of Children with Language Impairment: A Longitudinal Investigation. *Journal of Speech-Language-Hearing Research, 47, 1301-1318.*

Fillmore, L. W. & Snow, C. E. (2000) *What teachers need to know about language.* [on-line]. Available: http://www.cal.org/ericcll/teachers/teachers.pdf

Fletcher, P. (1991) Evidence from syntax for language impairment. In J. F. Miller (Ed*.) Research on child language disorders: A decade of progress*. Austin, TX: Pro-Ed.

Gazella J. & Stockman I. J. (2003) Children's story re-telling in different modality and task conditions: Implications for standarising language sampling procedures, *American Journal of Speech- Language Pathology, 12 (1), 61-72.*

Gillam, R. B., Pena, E. D. & Miller, L. (1999). Dynamic assessment of narrative and expository discourse. *Topics in Language Disorders, 20, 33-47*.

Gummersall, D. M. & Strong, C. J. (1999) Assessment of complex sentence production in a narrative context. *Language, Speech and Hearing Services in Schools*, *30, 152-163.*

Gutierrez-Clellen, V.F. & Pena, E. (2001) Dynamic assessment of diverse children: A tutorial. *Language, Speech and Hearing Services in Schools, 32(4), 212-224.*

Hedberg, N. L. & Westby, C. (1993) *Analysing storytelling skills: Theory to practice.* Tucson, Arizona: Communication Skill Builders.

Hunt, K. (1965) *Grammatical structures written at three grade levels,* (Research Report No. 3). Urbana, IL: National Council of Teachers of English.

Kaderavek, J. N. & Sulzby, E. (2000) Narrative production by children with and without specific language impairment: oral narratives and emergent readings. *Journal of Speech, Language and Hearing Research, 43 (1), 34-49.*

Liles, B. Z., Duffy, R. J., Merritt, D. D. & Purcell, S. L. (1995) Measurement of narrative discourse ability in children with language disorders, *Journal of Speech and Hearing Research, 38, 415-425.*

Martin, L. (1990) *Think it say it. Improving reasoning and organization skills.* Texas: Pro-ed.

Mayer, M. (1969) *Frog where are you?* New York: Dial.

McFaddden, T. U., & Gillam, R. B. (1996) An examination of the quality of narratives produced by children with language disorders. *Language, Speech and Hearing Services in Schools, 27, 48-56.*

Munoz, Gillam, Pena, Gulley-Faehnle (2003) Measures of Language Development in Fictional Narratives of Latino Children. *Language, Speech and Hearing Services in Schools, 34, 332-342.*

Naremore, R. C. (1997) Making it hang together: Children's use of mental frameworks to structure narratives. *Topics in Language Disorders, 18 (1) 16-31.*

Norris, J. & Hoffman, P. (1993) *Whole language intervention for school- age children*. San Diago: Singular Publishing Group.

Norbury & Bishop (2003) Narrative skills of children with communication impairments, *International Journal of Language & Communication Disorders, 38 (3), 287-313.*

Owens, R.E. (1996) *Language development: an introduction, 4th edition*. Boston: Allyn and Bacon.

Paul, R. & Smith, R. L. (1993*) Narrative skills in 4-year olds with normal, impaired and late developing language*. New York: Merrill.

Pearce, W. M. (2003) Does the choice of stimulus affect the complexity of children's oral narratives. *Advances in Speech Language Pathology, 5 (2), 95-101.*

Renfrew, C. (1991) *The Bus Story, 2nd Edn.* (Oxford: author)

Restrepo, M. A. (1998) Identifiers of predominantly Spanish-speaking children with language impairment. *Journal of Speech, Language and Hearing Research, 41, 1398-1411.*

Roberts, B. & O'Brien, M. (2003) *The importance of oral language across the curriculum. Professional Development Course.* Catholic Education Office, Melbourne.

Schneider, P. & Winship, S. (2002) Adult's judgement of fictional story quality. *Journal of Speech, Language and Hearing Research, 45, 372-383.*

Scott, C. M. (1988) Spoken and written syntax. In M. A. Nippold (Ed*.) Later language development.* San Diego, CA: College Hill.

Stein, N. & Glenn, C. (1979) An analysis of story comprehension in elementary school children. In R. Freedle (Ed.) *New directions in discourse processing, Vol 2* (pp 53-120). Norwood, N. J.: Ablex.

Stockman, I. (1996) The promises and pitfalls of language sampling analysis as an assessment tool for linguistic minority children. *Language, Speech and Hearing Services in Schools, 27, 355-366.*

Stockman, I. J. (2000) The new Peabody Picture Vocabulary Test – 3: An illusion of unbiased assessment? *Language, Speech and Hearing Services in Schools, 31, 340-353.*

Westby, C. (1984) Development of narrative language abilities. In G. Wallach and K. Butler (Eds.) *Language learning disabilities in school-age children* (pp103-127). Baltimore: Williams & Wilkins.

Westby, C. (1989) Assessing and remediating text comprehension problems. In G. Kamphi and H. W. Catts (Eds.) *Reading disabilities: A developmental language perspective.* (pp 299-360). Boston: Little Brown.

Westerveld, Gillon & Miller (2004) Spoken language samples of New Zealand children in conversation and narration, *Advances in Speech-Language Pathology, 6 (4), 195-206.*

Wilson, W., Wilson, J. & Craig, H. (2000). Culturally appropriate assessment: Issues and strategies. In T. Coleman (Ed), *Clinical management of communication disorders in culturally diverse children,* pp 101-128. Boston: Allyn and Bacon.

Appendix 1

Wordless Story Tell Procedure:

Examiner: "Now we're going to look at a special book. It is special because it is a picture story book. There are no words in it. I want you to take your time and look through the pictures so you know what happens in the story. Then I want you to tell me the story. It is a story about a boy and his two pets."

Examiner prompts (if required):

(1) If the student starts telling a story and then stops.....wait for 3 seconds....if there is no additional information, say "Tell me some more!"
(2) If they offer no further information say "You are telling a great story, tell me what happened next?"

Single Picture Story Tell Procedure:

Examiner: "Look at the picture and think about what is going on in the picture. Now, I want you to make up a story in your head about the picture. You might include things in your story that are not in the picture. Can you tell me your story, like a story you would find in a book."

Examiner prompts (if required):

As above

Appendix 2

Transcription Rules

- Using the taped samples for each student, play the tape and transcribe the exact language that the student used in each story.
- Record each sentence on a separate line.
- Discover the boundaries of each sentence by listening for pauses and sentence ending intonation (*rising pitch on questions and falling pitch on statements*).
- Mark mazes, with parentheses. A maze includes all instances of hesitations e.g. (um….uh), false starts e.g. (my dog he) my dog jumped on me, repetitions e.g. my dog (my dog) jumped on me, repairs and abandoned utterances e.g. and then he came up like (my dog jumped on me) (Fletcher, 1991).
- Record pauses with (.....). Only record pauses greater than 2 seconds.
- Use << >> for any examiner prompts."

Number of words per T-unit:

Count the number of words in each T-unit. Do not include mazes (see definition below). Do not count unintelligible words in the word count. Count as two words all contractions of two words (e.g. couldn't = could not, she's = she is). Count as one word; synonyms (e.g. water pond, puffer train), proper names (e.g. Thomas the Tank Engine) and immaturities (e.g. choo-choo train, moo cow). Count the total number of words and divide by the total number of T-units = Mean Length of T-unit (MLT). Words were counted as outlined by Gummersall and Strong (1999).

Number of clauses per T-unit - (subordination index):

Count the number of clauses in each T-unit. A clause is a group of words containing a subject and the accompanying verb, and used as a sentence (independent clause) or attached to an independent clause (dependent clause). The simplest and fastest way to calculate the mean number of clauses is to look for the main verbs. The crucial characteristic of a clause is that it normally contains its own verb. Any part of a sentence that does not contain a verb cannot be a clause. Count the total number of clauses and divide by the total number of T-units.

Grammatical Errors:

Problems with word order, lexical selection, or morphology were coded as grammatical errors. They were produced without an attempt by the speaker to repair them. Grammatical errors were identified in each T-unit. Verb or noun phrase agreement problems, use of inappropriate pronouns, word order problems and omissions of words were considered grammatical errors. Lexical errors, phonological errors and articulation errors were excluded because the focus was on morpho-syntactic skills.

An example of a narrative sample and analysis:

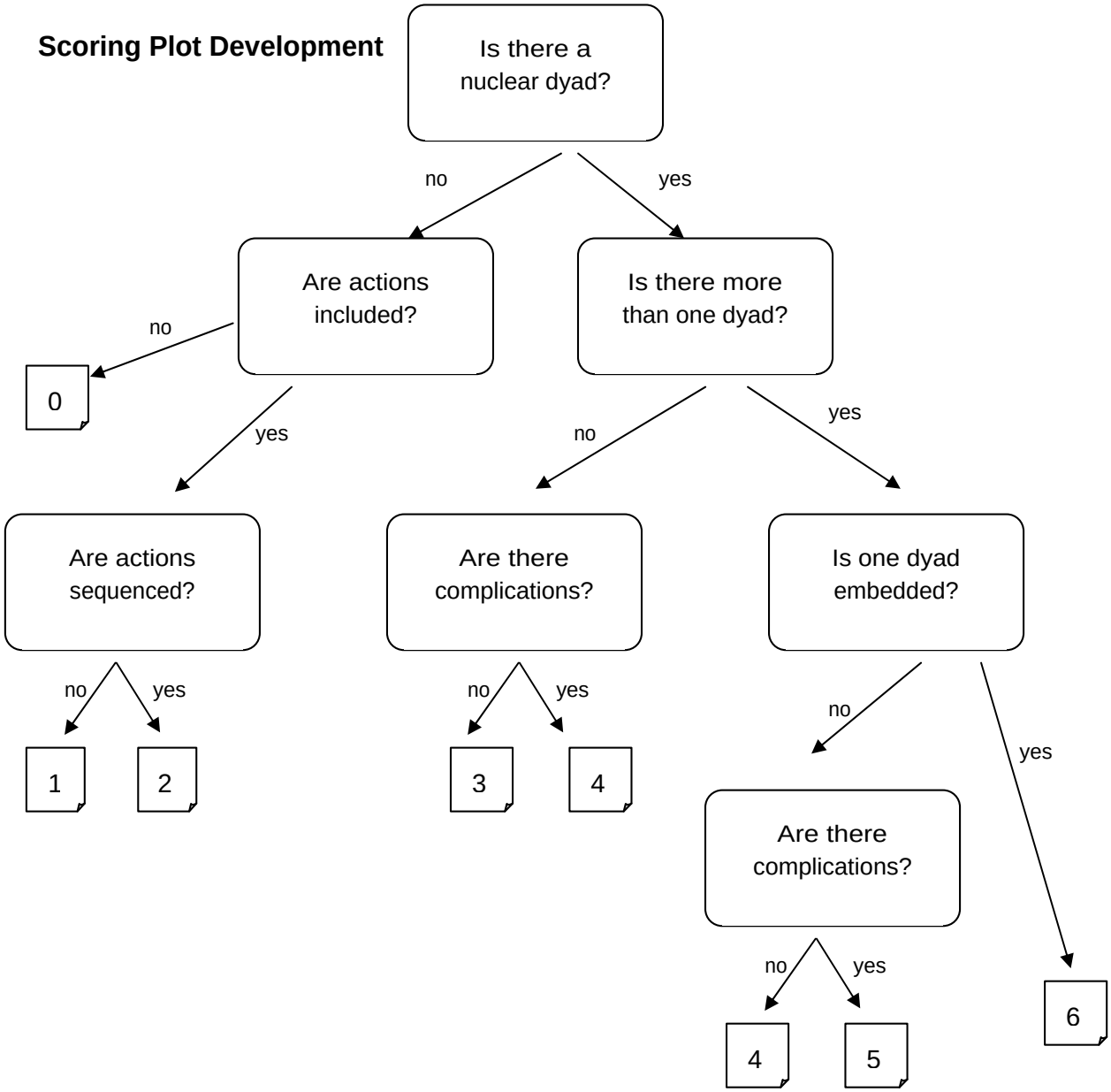
Frog Where are you?	# TU	# W	# C	NGE
Once upon a time (he..) the boy had a frog		9	1	
And then the dog wanted to see what it's inside		11	2	1
And then when the boy was asleep (the..) the frog wanted to sneak out		13	2	
(Then the boy wanted to..) then the boy wanted to look for him		14	2	
And then the boy looked in his shoe		8	1	
And the dog put his face (in the..) in the bowl (..the..whatever the... to be called)		13	1	
And then he looked outside		5	1	
And (then..) (then the boy…then…) then he sawed his dog went passed		8	1	2
And then..and then….and on the wall				
(And then…) and (then…) then he broked (the..) his bowl		6	1	1
(He..) he called the frog		4	1	
He looked (in..in..) in a hole		5	1	
The dog (looked…) was playing with (the bee thing..) the bee thing		8	1	
Then he..um then..then….what's that?				
<< What do you think?>>				
A rat (….) bit (the..the..) the boy's nose		6	1	
(Um) then he looked through a owl hole		7	1	1
(Then..) (and then…he…) and (then he …) then the owl (…..) followed him		6	1	
And (then…) then he called him again		6	1	
Then the dog..the dog…wanting to (unintell)				
And (then..) then the boy (…went..) went (…on…on...) on the whatever it's called		11	1	
And then (he's..) he's about to go (….) over there		9	1	
And the boy dropped-ed		4	1	1
And the dog dropped		4	1	
And then he felled (in a ..) (in the..) in the puddle		7	1	1
And (then..) then the dog went on top of his head		10	1	
And (then he…) then he heard something		5	1	
And then he sawed his frog		6	1	1
And the frog had a little family		7	1	
And then the boy took one of his babies		9	1	
The end		2	1	
TOTAL	**27**	**203**	**30**	**8**
		7.52	**1.11**	**0.30**

Story Analysis Procedure

Taken from Fey et al.(2001)

Story Elements	Rating Scale	Score
Story Setting Includes explicit reference to the physical and temporal context prior to the establishment of a problem	0 No mention of setting 1 Reference to parts of the setting observable in the story picture/s 2 Reference to or description of non-pictured parts of the setting 3 Reference to non-pictured elements that play a key role in developing the problem or resolution	
Story Characters Includes explicit reference to all characters prior to the establishment of a problem	0 characters are not mentioned 1 characters are labelled, including family relationships (eg: mum, brother, sister) 2 characters are given names or characteristics not observable in the pictures 3 characteristics that play a key role in developing the plot are identified	
Story Ending Includes relevant information, character responses to the resolution, and statements concerning future behaviours following the resolution of the final episode	0 no ending of any sort 1 stereotypic endings (eg: the end; they lived happily ever after) **2 internal or external responses to the story's problem and/or resolution are provided** 3 some statement indicating a moral or the future behaviour will change as a result of the character's experiences is provided	
Story Plot **(see next page for details)**	0 - 6 points	
Language Sophistication/ Literate Language Use Fronted adverbial clauses and phrases, relative clauses and post-modifying phrases, "Story" vocabulary, including -ly adverbs and cognitive verbs, direct quotations, sentences with multiple auxiliaries and passive sentences	0 no use of target features 1 single use of one or more of the target features OR moderate use of only one target feature 2 moderate use of more than one target features (2+ uses) 3 established use of more than one of the target features **to story-telling effect**	
	TOTAL:	/18

Scoring Plot Development



Nuclear Dyad

- ☆ Must contain an overtly identified need, desire, conflict, danger, or goal of the character(s)
- ☆ The problem/conflict must be overtly resolved, either successfully or unsuccessfully
- ☆ Most dyads contain actions that move characters toward the resolution

Problem:

- ☆ May be explicitly identified, often as an internal response
- ☆ Actions of the characters may be elaborated in a way that makes a problem overt eg: runs as fast he can

Resolution:

- ☆ May be an explicit statement
- ☆ May be entailed in an ending statement indicating the characters future intentions or patterns of behaviour

Complication:

- ☆ Any obstacle or interruption in the actions toward a resolution that adds tension, conflict of drama
- ☆ Must NOT result in the creation of an additional nuclear dyad

ORAL NARRATIVE ASSESSMENT PROTOCOL

Student: _____ **Grade:** _____

Activity: _____ **Teacher:** _____

SETTING: refers to the time and the place context of the story prior to the establishment of a problem				
0	**1**	**2**	**3**	**4**
No mention setting				Detailed description of setting in the story

CHARACTERS: refers to the characters included in the story				
0	**1**	**2**	**3**	**4**
No mention setting				Detailed description of characters in the story

SEQUENCING: the events in the story are sequenced in a logical order.				
0	**1**	**2**	**3**	**4**
Story sequencing is not present. Either a collection of unrelated ideas or no specific order of events evident				The story has a central character and has a true sequence of events.

LENGTH: the story is an adequate length and provides sufficient detail for the listener to follow and understand the story. The story teller does not require prompts for more information.				
0	**1**	**2**	**3**	**4**
Story length is very short with minimal story details provided.				The story is a good length with many details provided

ENDING: the story is finished with character responses to the resolution of the story and may include a statement indicating a moral or the future behaviour that will change as a result of the character's experiences.				
0	**1**	**2**	**3**	**4**
No ending of any sort				Detailed ending that provides a conclusion to the story

ORAL NARRATIVE ASSESSMENT PROTOCOL

Student: _____ **Grade:** _____

Activity: _____ **Teacher:** _____

VOCABULARY: specific and varied vocabulary is used to provide interest for the listener. Use of adjectives to provide more information and use of cognitive verbs (e.g. think, remember, decided, thought…)				
0	**1**	**2**	**3**	**4**
Nonspecific or inappropriate vocabulary used. Concrete, familiar and lacking in variety				Uses more formal, literate vocabulary that provides interest and good descriptions of the events in the story

SENTENCE STRUCTURE: refers to whether sentences are simple (e.g. the man hit the dog), compound (e.g. the man hit the dog and walked away from the door) or complex (e.g. the man walked away because the dog was angry)				
0	**1**	**2**	**3**	**4**
Only short simple sentences are evident in the story telling				A range of complex sentences are used

GRAMMAR: the use of appropriate grammatical structures (e.g. correct use of pronouns **–** he, she, his hers, correct use of verb tenses **–** e.g. runned vs ran, subject-verb agreement **–** e.g. the boys is going to the water				
0	**1**	**2**	**3**	**4**
Frequent grammatical errors are evident during the story telling				No evidence of grammatical errors or age appropriate errors are evident

NARRATIVE STYLE: story telling is fluent with minimal revisions, hesitations or pausing.				
0	**1**	**2**	**3**	**4**
Frequent hesitations, pausing or revisions that disrupt the flow of the story				No/ minimal hesitations, pausing or revisions. Story telling is fluent.

OVERALL GLOBAL RATING				
0	**1**	**2**	**3**	**4**
lowest				highest