NARRATIVE DISCOURSE PRODUCTION IN LANGUAGE IMPAIRED LEARNING DISABLED YOUNG ADOLESCENTS

A DISSERTATION ON A STUDY PRESENTED TO THE
DEPARTMENT OF LOGOPAEDICS
FACULTY OF HEALTH SCIENCES
UNIVERSITY OF CAPE TOWN

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE
COURSEWORK OF MASTER OF SCIENCE DEGREE

IDA FONAROV

MAY 2000

ACKNOWLEDGEMENTS

The researcher would like to thank and acknowledge the contributions of the following people:

Supervisor:

Dr. Dale Ogilvy

The six children who participated in the study

Statistician

Prof. Dr. H.W. Kruijsse

Transcribers

Miss E. Gomes
Miss K. Nabeemeah

Scorer

Miss A. Venter

Editing

Mr. A. Fonarov

ABSTRACT

The spoken language productions of three language impaired learning disabled and non-learning disabled young adolescents were explored using a narrative discourse analysis procedure. The purpose was to compare the narrative production abilities of language impaired learning disabled and non-learning disabled young adolescents on a number of measures: story length, amount of information, coherence, evaluation and cohesion. In addition, it compared the performance of language impaired learning disabled and non-learning disabled young adolescents on three types of narrative tasks (story generation from a picture, personal narrative, and story retelling). Furthermore, this study investigated the stability of the narrative scores over three measurement times. The narrative discourse productions were analysed using more stringent reliability measures. Measures of reliability were obtained by calculating inter-rater and intra-rater reliability measures and testing for stability of scores across the three testing sessions. The results indicated that 46 of the 48 dependent measures in this study remained stable across the three testing times. One of the most important clinical findings in this study was that the language impaired learning disabled young adolescents are able to retell and generate narratives. Significant differences were however, found between the two groups. The language impaired learning disabled young adolescents produced shorter and less coherent and cohesive stories than the non-learning disabled young adolescents. Although they used fewer cohesive devices, they did not use significantly more incomplete and erroneous cohesive ties than the non-learning disabled young adolescents. The analysis of task effects indicated that story retelling is more clinically useful with language-impaired learning-disabled young adolescents for an assessment of narrative discourse ability than story generation. The implications for use of narrative discourse and types of story collection tasks for the assessment of language impaired learning disabled young adolescents are discussed.

CONTENTS

LISTING OF TABLES

LISTING OF FIGURES

1 INTRODUCTION

If narrative is an organiser of human experience, what better and more relevant mode of expression can we use to probe the abilities and disorders that shape human communication. (Bruner, 1990)

Although the awareness of the needs of individuals with learning disabilities, in particular language based learning difficulties, has greatly increased in recent years (Cooper, 1991), the nature of communicative competence in older language-disordered children has been often difficult to define (Purcell and Liles, 1992). We still know relatively little about the continuum of language failure (Wallach and Liegergott, 1984).

In the past, researchers who have initiated follow-up studies of children with language disorders early in life, suggest that even after intervention, language disorders persist through the school years and even through adulthood (Hall and Tomblin, 1978, Weiss, Hansen and Heubelein, 1979; Snyder, 1980 in Wallach and Liebergott, 1984; and Purcell and Liles, 1992). According to Wiig and Semel (1984) subtle language deficits found in the learning disabled child may persist into adolescence and even adulthood if the child does not receive the appropriate intervention.

Wallach and Liebergott (1984) reported that there are a number of ways that symptoms of early language disability change over time: (1) Overt symptoms frequently seen in younger children with language disorders (e.g., reduced mean length of utterance, limited vocabulary, etc.) may become more subtle (e.g., they show up as inferential processing problems, word-retrieval problems, pragmatic difficulties, etc.); (2) Language problems may show up in reading and spelling, i.e., spoken language problems 'turn into' written language problems; and (3) Verbal language problems (listening-speaking) may persist and, in addition, are evidenced in reading and writing. Thus, children who have early language problems do not simply outgrow those problems (Hall and Tomblin, 1978; Snyder, 1980 in Purcell and Liles, 1992). Wiig and Semel (1984: 20) succinctly stated: 'Language deficits

which begin early in life...may persist into young adulthood and emerge again and again in later life. They tend to come out when a new circumstances – perhaps a new line of study, a new job, or a promotion – place different and unexpected demands upon language processing and use in speaking or writing.'

The challenge for speech-language pathologists is to develop an understanding of the newer manifestations of the disorder, especially in relation to the competencies children must develop to function successfully in a school setting. Language-disabled children are at the highest risk for academic failures (Snyder, 1980 in Wallach and Liebergott, 1984), and the notion of such children 'catching up' is seriously questioned (Wallach and Liebergott, 1984).

Over the past few years, the investigation into the use of language has shifted from analysing single utterances to analyzing larger units of discourse (Donahue, 1991). Discourse analysis takes into account the social and cognitive influences that bear upon language when used in communication (Smith and Leinonen, 1992). Assessment of discourse in older children and young adolescents allows a clinician to examine their ability to manage larger units of discourse as well as to examine their ability to process coherent oral and written texts (Nelson, 1993).

One method that has emerged as a promising method for assessing the multilevel processes used during discourse, is the analysis of narrative texts (Liles, 1987). Clinical use of narrative analysis as a means of describing language in mild-to-moderately language-impaired children is becoming increasingly prevalent with speech therapists (Chappell, 1980; Crais and Chapman, 1987; Culutta, Page, and Ellis, 1983; Johnston, 1982; Liles, 1985a, 1987; Scott, 1988 in Merritt and Liles, 1989). The motivation for this trend is governed by the need to document the communication difficulties observed in language-impaired children as they mature (Merritt and Liles, 1989).

Most researchers recognise narrative production and comprehension to be a complex use of language that requires the integration of linguistic, cognitive, and social abilities. Good narrative production and comprehension are dependent on the speaker's ability to use all these systems as the context demands (Liles, 1993). Narratives are extended texts that occur frequently in the classroom, and in a variety of meaningful social contexts (Coggins,

Friet and Morgan. 1998). Feegans and Applebaum (1986) and Bishop and Edmundson (1987) state that narratives provide a means of verbally summarising past experiences, allow individuals to make sense of events in their lives, and have been found to be strong predictors of future academic success. Stephens (1988) states that deficits in discourse may impact significantly on a child's academic achievement and communicative competence.

As school-age children reach adolescence, the ability to comprehend and produce narratives becomes crucial for school success, as well as for peer acceptance (Paul, 1995). With reference to the former, researchers have argued that narrative skills are inextricably bound with the development of reading and writing. With reference to peer acceptance, narratives serve an important source of knowledge about social cues, the mental states of other people and the value of conforming to moral standards. Narratives offer clinicians a meaningful alternative by which to examine the social-communicative processes of young adolescent children with leaning disabilities, as narratives obligate speakers to make inferences, link ideas and take the perspective of others (Coggins et al., 1998). Researchers have agreed that the major contributing characteristic of the narrative for investigative purposes, are its pragmatic or functional characteristics. From this perspective, the appeal of the narrative is its validity as a measure of communication (Liles, 1993).

Narrative tasks seem to be particularly sensitive instruments for tapping higher level language and cognitive skills (Paul and Smith, 1993, Ulatowska et al., 1998). Liles (1993) provided an operational description of the narrative task and concluded that it would entail the speaker doing the following: '(a) integrating a variety of themes with characters' motives and internal responses, (b) interweaving that content with socially appropriate and logical arguments for plans and outcomes, (c) Molding that content into a language form that coherently realises the narrative's communicative function, and (d) Monitoring all of the above in order to produce the desired effect on the intended recipient' (Liles, 1993: 871). Narratives assess the child's ability to sequence events, create a cohesive text through the use of explicit linguistic markers, use precise vocabulary, convey ideas without extralinguistic support, understand cause-effect relationships, and structure the narration along lines of universal story schemata that aid the listener in comprehending the tale (Paul and Smith, 1993). Narratives facilitates a broad description of a child's language use, as it includes the interaction of sentence formulation, use of linguistic devices to conjoin meanings across sentences, and the general organisation of the content (Merritt and Liles,

1989). Some researchers maintain that language produced in narratives is a more valid indicator of developing semantic abilities than language produced in single sentences. The rationale for this position is that narrative coherence requires a fairly narrow specification of meaning (Bennett-Kastor, 1986; Silva, 1984, 1991; in Liles, 1993).

The use of narratives for obtaining language samples is frequently used given its relationship to child development and its use in whole language approaches to curriculum. Research using narratives often compares the abilities of students with language impairments to normal students (Morris-Friehe and Sanger, 1992). Reports based on story elicitation tasks include story retell (Atkins and Cartwright, 1982; and Liles, Coelho, Duffy, and Zalagens, 1989), story generation from story stems (Merritt and Liles, 1987), story generation from memory (MacLachlan and Chapman, 1987; Roth and Spekman, 1986, 1989), and story generation from pictures, films, or videos (Dollaghin et al., 1990; Klecan-Aker and Kelty, 1990; Wren, 1985 in Morris-Friehe and Sanger, 1992).

Discourse is organized at both a macrolinguistic and microlinguistic level (Glosser and Deser, 1990). Macrolinguistic organization refers to the ability to maintain conceptual and pragmatic organization beyond the word and sentence level, i.e. inter-sentential level. On the other hand, microlinguistic organization refers to the semantic representations of sentences and single word aspects such as the phonological, lexical semantic and syntactic aspects, i.e. intra-sentential level. (Glosser and Deser, 1990, Nelson, 1993).

Coherence and cohesion are two macrolinguistic elements of the narrative that are presumed to underlie the ability to convey events in the world, and to relate to the well-formedness of discourse (Ulatowska, Freedman-Stern, Doyel, Macaluso-Haynes and North, 1983). They have both been reported in the literature to be key components of narrative discourse (Berman and Slobin, 1994; Paul, 1995, in Coggins et al., 1998).

Coherence is an indication of how effective an individual is in communicating the essential components of a situation (Coggins et al., 1998). It is a term used to characterize the conceptual organization of elements of discourse at a suprasegmental level (Gloser and Deser, 1990). According to Ulatowska et al. (1983) coherence relates to the plausibility, conclusiveness and conventionality of discourse.

Halliday and Hasan (1976) view cohesion as the component of the linguistic system that enables a text to function as a single meaningful unit. Cohesion reflects the individual's competence in connecting a series of events into a logical system or structure (Coggins et al., 1998). It is viewed as a semantic relation by which the interpretation of one element in a text can only be made by reference to another. It is achieved through the linguistic interdependence of elements within a text. The single occurrence of a pair of cohesively related items is termed a cohesive tie (Halliday and Hasan, 1976 in Mentis and Prutting, 1987). Cohesive analysis could lead to a better understanding of the linkages between the construct of syntax and the deficits in communicative competence that hinder the educational success of language-impaired children (Strong and Shaver, 1991).

Past research on narrative abilities in learning disabled children has presented with many contradictory results. Ripich and Griffith (1988) found that learning disabled students perform as well as their normal peers in some aspects of narrative productions, but in other aspects perform poorer. Researchers studying the narrative abilities of language-impaired and learning-disabled children and adults using the story gist recall elicitation method, have found that both groups preserve the order of events in a story with the same degree of accuracy, and demonstrate the same pattern of story organisation in recall as their normally achieving counterparts (Graybeal, 1981; Hansen, 1978; Weaver and Dickinson, 1979, 1982; Worden, Malmgren, and Gabourie, 1982 in Roth and Spekman, 1986). However, it was found the learning disabled children and language-impaired children tend to recall significantly less information from stories (Roth and Spekman, 1986). The learning-disabled group's stories contained fewer propositions and fewer complete episodes and contained significantly fewer Minor Setting statements than those of their normally achieving peers. They were less likely to include Response, Attempt, and Plan statements within an episode than their normally achieving counterparts. Weaver and Dickinson (1979, 1982) reported that the learning-disabled subjects' narratives (retelling task) contained more incorrect information, fewer instances of linguistic markers that specify important temporal and causal relationships, and fewer instances of word and phrase modifiers. Ripich and Griffith (1988) found that language impaired learning disabled children produced fewer words that contained emotion than non-language impaired learning disabled children did.

From the above-mentioned studies, it appears that learning-disabled students have knowledge of narrative structure and can apply this knowledge in their recall of stories. This however, does not suggest that learning-disabled children would show the same level or type of organisation in their spontaneously generated stories (Roth and Spekman, 1986).

When asked to relate personal experiences and stories, learning-disabled children and adults were found to demonstrate problems of formulisation and organisation (Blalock, 1982; Johnson and Myklebust, 1967; McNamee and Harris-Schmidt, 1985; Westby, 1982, 1984; Wiig and Semel, 1976a, 1980; cited in Roth and Spekman, 1986). According to Klein (1991) learning disabled children may find it difficult to communicate in a free flowing, creative and interesting manner.

In addition, other studies have stated that learning disabled children produce less cohesive narratives than non-learning disabled persons with the main difference being attributable to the use of pronouns as referents and conjunctions as tie elements (Strong and Shaver, 1991, Liles et al., 1993, 1995).

In some studies, cohesive adequacy scores of language-impaired and learning-disabled children were consistently lower than those of normally developing children (Berger and Sinoff, 1979; Caro, 1983; Liles, 1985; Tuch, 1977 in Strong and Shaver, 1991). However, conflicting findings and findings of no differences between the means for cohesive density and types of cohesive ties were reported (Fine, 1985; Griffith et al., 1985; Harris et al., 1987; Hedberg and Fink, 1985; Milosky and Chapman, 1984; Pellegrini et al., 1984). There is no way of knowing whether the latter findings were a function of unreliable scores, as no coefficients were reported for internal consistency or stability (Strong and Shaver, 1991).

Past studies on the other hand, have also shown that the differences between the language impaired learning disabled and control groups are small and insignificant or none at all (Klecan-Aker and Hendrick, 1985; Ripich and Griffith, 1988). This indicates that there are often more similarities between the groups than differences (Roth and Spekman, 1986). Much research has established that school-age children with learning disabilities do not have problems with story grammar structure per se (Graybeal, 1981; Griffith et al., 1986; Johnston, 1982; Jordan, Murdoch, and Buttsworth, 1991; McConaughy, 1985; Merritt and Liles, 1989; Ripich and Griffith, 1988; Roth and Spekman, 1986; Weaver and Dickinson,

1982). Jordan et al. (1991) have attributed their failure to find differences in the story grammar analysis of narrative production of learning-disabled and normal-developing peers, to mean that narratives of the former are not impaired.

Although language sampling has been advocated as a valuable procedure for describing spoken language since the 1930s (Cole, Mills, and Dale, 1989; Loban, 1963; Lee and Canter, 1971; McCarthy, 1930; Muma, 1973; Owens, 1991; Prutting, 1982; Roth and Spekman, 1984a in Morris-Friehe and Sanger, 1992), there is still little consensus on the most valid and reliable procedure to use. Strong and Shaver (1991) attribute conflicting results to the unreliability of scores given the analysed elements of the discourse. Hux et al. (1997) highlight many methodological issues that can contribute to the reduced reliability in such research. The variability of language across context and tasks, the diverse nature of language, the paucity of normative data on older children, and the heterogeneous nature of subjects, all contribute to the controversy in this area of research (Dollaghin, Campbell, and Tomlin, 1990; Thomas, 1989; Morris-Friehe and Sanger, 1992; Nelson, 1993; in Hux et al., 1997).

Much of the controversy over language sampling relates to the numerous methodologies for eliciting language samples, particularly the text type to be collected and the materials or tasks used (Morris-Friehe and Sanger, 1992). Most researchers include a combination of text types (expository, narrative, descriptive, conversation), use a variety of materials (toys, pictures, books, films, and videos), or combine several types of elicitation tasks (retell, creation from semi-structured materials, imitation) for obtaining several samples of a given text type.

According to Strong and Shaver (1991) it is essential to obtain the child's true ability or performance in narrative discourse productions, which is not impeded by the method of elicitation. This is supported by Liles (1993) who states that the most critical part of a study investigating the production of narrative is the procedure chosen for elicitation. The two most common types of elicitation procedures are story retelling and story generation (Scott, 1988). Merritt and Liles (1989) compared a story retell and story generation task using story stems with normal and language-impaired children. They concluded that a story retell task is as effective as, if not better than, a story generation task for obtaining a language sample. Liles, Coelho, Duffy, and Zalagens (1989) also compared story retell and

story generation, but used a picture rather than a story stem with a group of normal and closed head-injured adults. They concluded that story task (retell/generation) does affect the language an individual produces. On the other hand, similar trends have not emerged between stories told by language-disordered children compared to normal children (Scott, 1988).

In more recent studies validity and reliability have become increasingly important aspects to language sampling and analysis of discourse productions (Strong and Shaver, 1991; Morris-Friehe and Sanger; Hux et al., 1997). Strong and Shaver (1991) demand stricter measures of reliability to be used in studies looking at narrative discourse productions. Hux et al. (1997) also supports this notion. In order for results to be interpreted with confidence, researchers have collected data across a number of different testing times spaced at brief intervals to determine whether the scores do not fluctuate greatly across testing sessions (Strong and Shaver, 1991; Morris-Friehe and Sanger, 1992). Strong and Shaver (1991) further recommend the use of important reliability measures such as intra-coder agreement; internal consistency of responses and stability of scores across testing sessions before the researcher can generalise any results to the general population.

In summary of the literature and past research it is clear that there is a paucity of research in the production of narratives in the young adolescent language-impaired learning disabled population. In addition, the little research that has been undertaken reveals conflicting findings.

The purpose of this study was to examine and document the narrative discourse characteristics of the young adolescent language impaired learning disabled population. The rationale develops from the paucity of research and conflicting findings in the productions of narratives in this population group.

The aim of this study was to compare the narrative discourse productions of language impaired learning disabled young adolescents to non-learning disabled young adolescents on three narrative tasks, over three measurement times, while applying more stringent reliability measures.

The use of multiple narrative tasks were employed in this study due to the little consensus existing, concerning the most appropriate procedures for collecting and analysing narratives

across populations (Cole et al., 1989; MacLachlan and Chapman, 1988; Merritt and Liles, 1989; Owens, 1991; Scott, 1988 in Morris-Friehe and Sanger, 1992). In addition, the researcher was interested in comparing the language impaired learning disabled and non-learning disabled young adolescents' performance on story retelling and story generation tasks.

In this study determining reliability was of major concern. It aimed to assess reliability by employing inter-rater and intra-rater reliability measures and collecting narrative samples over three sessions. The collection of narrative samples over three sessions allowed the researcher to determine whether the scores fluctuated or remained stable between testing sessions.

The researcher collected large narrative samples from each subject and compared the group on many coherence and cohesion variables. This enabled the researcher to determine statistical group differences.

The scope of this study involves both theoretical and applied aspects. Theoretically, more reliable findings provide increased knowledge about language impaired learning disabled young adolescent's narrative discourse productions. In addition, this study examines how deficits in narrative discourse may be reliably assessed and measured. Finally, it provides information regarding task and time effects on narrative discourse productions.

The findings from this study may provide clinical information regarding the assessment and management of language in the young adolescent language impaired learning disabled population. In addition, it may indicate ways of obtaining and analysing narrative discourse samples using reliable measures. More reliable findings will provide the speech-language therapist with increased knowledge as to what would constitute normal and abnormal discourse productions (Sonnenberg and Penn, 1998)

2 METHODOLOGY

This section presents the aims, research design, subject selection criteria, and description of subjects used in this study. In addition, the narrative discourse tasks and materials, procedure and methods of analysis, statistical procedure, and measures of reliability are described.

2.1 Aims

1. To compare the performance of language impaired learning disabled young adolescents to non-learning disabled young adolescents on narrative discourse, using the measures of coherence and cohesion.
2. To investigate task effects, using three types of elicitation tasks (story generation from a picture, personal narrative, and story retelling from a video).
3. To employ more stringent measures of reliability by examining the stability of scores over three testing times, and employing inter-rater and intra-rater reliability measures.

2.2 Research Design

An experimental study design was employed in this study. A 2X3X3 factorial design with 2 group levels (LILD and non-LILD), 3 time levels, and 3 task levels (Story generation from a picture, personal narrative, and story retelling from a video), was used. The differences between the two groups were evaluated on a time and task factor. Although it is known that the learning disabled population is a heterogeneous one, the differences within groups do not dominate the observed differences between groups.

2.3 Subjects

2.3.1 Sample Size

Three language-learning disabled young adolescents (LILD) and three non-learning disabled young adolescents with no history of learning disabilities nor any other neurological or behavioural disorders, were used as controls in this study. The subjects were matched for gender and age. The controls were not matched for grade as the LILD subjects had repeated grades at school. The two groups could be compared statistically, despite the small sample size, due to the large number of dependent variables on which they were compared.

2.3.2 Subject Selection Criteria

The following criteria were applied in the process of selecting subjects:

2.3.2.1 THE LANGUAGE IMPAIRED LEARNING DISABLED SUBJECTS (LILD)

- Subjects were required to have been diagnosed as *language* impaired learning disabled by a speech and language therapist and other professionals.
- The subjects were required to be language impaired in either the receptive and/or expressive areas of language.
- All subjects were required to attend a school for the learning disabled.
- The subjects had to be diagnosed as language impaired not attributed to cultural differences or environmental linguistic deprivation (Owens, 1998).
- An average to above average non-verbal IQ, ranging from 85 upwards, as determined by a formal intellectual ability test, was required for all LILD subjects.
- The subjects were required to be in the *12.6 – 13.6* year old range. This age range was chosen due to the limited information available regarding the language impairments of the language impaired learning disabled young adolescent (Wallach & Liebergott, 1984). In addition, it is at this age when children are entering high school for the first time, and often speech therapy for this age group is terminated at this age.

- The subjects were required to be first language English speaking as the examiner is first language English speaking.
- The subjects were required not to have any emotional or behavioural disturbances.
- All subjects were required to have normal visual acuity and hearing sensitivity.

2.3.2.2 CONTROL SUBJECTS

The control subjects were selected according to the following criteria:

- The subjects were required to attend mainstream school.
- All subjects were required to have been attending a mainstream school, and the respective teachers were required to confirm that the subject was an average to above average student with no reported cognitive or linguistic difficulties.
- All subjects were required to not have received any type of specialised educational or speech-language support.
- An average to above average non-verbal IQ, ranging from 85 upwards, as determined by a formal intellectual ability test, was required for all non-LILD subjects.
- The subjects were required to be in the *12.6 – 13.6* year range.
- The subjects were required to be first language English speaking.
- The subjects were required not to have any emotional or behavioural disturbances.
- All subjects were required to have normal visual acuity and hearing sensitivity.

2.3.3 Subject Description

2.3.3.1 THE LANGUAGE IMPAIRED LEARNING DISABLED SUBJECTS (LILD)

The biological and clinical information for the three LILD subjects is presented in Table 2.1. The three LILD subjects and the three matched controls are referred to as LILD1, LILD2, LILD3 and non-LILD1, non-LILD2, non-LILD3 respectively throughout the report. As is illustrated in Table 2.1, all three LILD subjects present with language impairments. They all attend a school for the learning disabled and have attended the school for more than three years. Each LILD subject attends regular speech therapy, which focuses primarily on expressive and/or written language skills.

data (Liles, 1993). Secondly, past research has found that compared with story generation, story retelling results in longer, more detailed productions that more frequently contain complete grammar episodes (Liles, Coelho, Duffy, and Zalagens, 1989; Merritt and Liles, 1989). Merritt and Liles (1989) concluded that a story model facilitates less threatening communicative interactions between evaluators and children, thus presenting more optimum conditions for language sampling. Thirdly, providing the subject with a model narrative of extended length also ensures that the narrative represents the individual subject's generative style. This is an important feature in a retelling task because it is critical for the narrative to retain its communicative function (Merritt & Liles, 1989). Fourthly, one of the most informative aspects of narrative production is the subject's departure from the expected. If the examiner has knowledge of the target response, departures from the expected become easier to characterise. Finally, the examiner can control for context and complexity in a story-retelling task (Liles, 1993). Controls for content and complexity are difficult to impose if the subject is under no constraint, that is, if the investigator has not imposed some expected level of complexity by specifying the target response (Liles, 1993). The position that the investigator should define narrative complexity is supported by the research of Ripich & Griffith (1988). These researchers used three stories graded for complexity in terms of number of events and found that 7- to 12-year old normal and learning disabled students' performances varies as a function of story complexity (Ripich and Griffith, 1988).

Three animated Bart Simpson series by Matt Groening, was used as the stimuli for the story retelling task in this study: 'Call of the Simpsons'; 'When you dish upon a star', and 'Marge's Birthday'. The criteria for film selection included a relatively short length video (20 minutes), an apparently high interest level for older children (humorous), and a high degree of complexity with numerous events.

The use of a movie as the stimulus for the story-retelling task has several advantages. Firstly, it allows the examiner to have control of the content of the stories and their genre. Secondly, it is expected that a movie would elicit more connected and elaborate story retellings than other elicitation methods (Gutierrez-Clellen & Iglesias, 1992). In a study by Iglesias, Guitierrez-Clellen and Marcano (1986) it was found that movie themes tended to elicit longer and more elaborate narratives than personal narratives. Movies also appear to

result in greater recall of story events than books or pictures (Krasny Meringoff, 1980). Bagett's (1979) study showed that visual representation of a story facilitates a more faithful reiteration of the original story than the use of an audiotape. Thirdly, the use of a movie could facilitate causal coherence (Gutierrez-Clellen & Iglesias, 1992). Studies have found that book or picture retellings frequently contain no statements of motives, goals, or feelings behind the character's actions and no explicit causal linkages between the story events (Martin, 1983; Klekan-Aker, 1987; Yussen, 1982 in Gutierrez-Clellen & Iglesias, 1992). Gibbons, Anderson, Smith, Field, & Fischer's (1986) showed that an audio-visual story rendition yielded more inferences than the story presented on audiotape. Fourthly, retelling a movie could approximate a more naturalistic situation for retelling stories than other types of procedures, as watching television and retelling the plots of favourite programs is a fairly common language activity for these subjects. Thus, retelling a movie to a presumed naïve listener was expected to elicit a more natural and representative sample of the children's narrative competence, than book retellings or the recalls of written stories read to the child used in the developmental literature. Finally, retelling a movie facilitates spontaneous narratives from the most reluctant children (Gutierrez-Clellen & Iglesias, 1992).

2.5.1.2 STORY GENERATION

In this study there were two types of story generation tasks employed:

1. Generating stories from pictures (Liles, Coelho, Duffy, & Zalgens, 1989; Morris-Friehe & Sanger, 1992; Pellegrini, Galda, and Rubin, 1984; Ripich and Griffith, 1988). The pictures were obtained from the 'South African Adventures Classic' book by Phillisa Simons (see Appendix A). The pictures from this particular book were used because they had a South African context and because the pictures were thought to be appropriate for the age of the subjects, as they had been used by a number of speech-language therapists in informal assessment procedures. A story from a picture setting was used, as Westby (1984) found that poster pictures that display an action, may trigger the child to describe the action and little more; whereas pictures that display primarily a setting often yield a more complex story, if the child has the ability to organize a story.

2. Reports on personal experience: (1) My most frightening experience; (2) My favourite holiday; and (3) My happiest time. A personal narrative task was chosen as it has been used in a number of studies (Blalock, 1982; Johnson & Myklebust, 1967; Labov, 1972; McNamee & Harris-Schmidt, 1985; Ulatowska et al., 1998; Westby, 1982, 1984; and Wiig & Semel, 1976, 1980). In addition, it was chosen as narratives of past personal experiences are know to be produced spontaneously by children in all known cultures (McCabe, 1996).

The generation procedure was included in this study so that the subjects may be placed under some constraint (Liles, 1993). Narrative generation is suited for this circumstance because it is considered to be more 'difficult' than narrative retelling (Merritt & Liles, 1987, 1989; Ripich & Griffith, 1988 in Liles, 1993). This task ensures that the subjects are minimally directed by the context and it allows the speaker access to a greater range of possibilities for structural variation and content. As a result, the subjects have to rely more on an internalised narrative organisation and less on direct input from pre-structured content. It has also been argued that, relative to retelling, the generation task is more representative of spontaneous communication, and therefore more accurately reflects the pragmatic characteristics of the narrative (Liles, 1993). Most descriptions of the organisational difficulties exhibited by language-disabled children are based on tasks in which a child is asked to describe a sequence of events or explain how an object works or a game is played, as opposed to recall tasks. A recall task is not sensitive to sequential problems. It may be possible that a story grammar analysis, when applied to spontaneously generated stories, would uncover organisational and sequencing difficulties (Roth & Spekman, 1986).

2.5.2 Procedure

The researcher met with each subject on three separate occasions. One story retelling and two story generation tasks were elicited each time. The procedure of collecting narrative samples three times was undertaken for the following reasons: Firstly, to examine the stability of narrative productions across a number of testing sessions. Secondly, to determine whether more than one sample of the child's narrative yielded more reliable

results. Thirdly, to examine the stability of narrative productions as a function of a narrative task.

The short-term stability of scores over time is of particular concern in the research on cohesion in spoken narratives. In order for the cohesion scores to be interpreted with confidence, they should not fluctuate greatly between testing sessions spaced at brief intervals and with no intervention. The degree of stability across testing sessions is a significant issue in the valid assessment of the oral cohesion of language-impaired and normal-language children (Strong & Shaver, 1991).

According to Westby (1984) a child's language cannot and should not be assessed by a single language sample. Cole, Mills and Dale (1989) stated that multiple samples collected over a shot period of time were more useful than one sample taken at a single point in time. They reported that multiple samples yielded more lexical information than one sample.

2.5.2.1 LISTENER FAMILIARITY

The naïve listener condition – when the narrator believes that the listener is unfamiliar with the event or story that will be narrated (Strong and Shaver, 1991) - was created in order to maximise the verbal productions of each child. This is consistent with Liles's (1985) findings that normal language children and language-disordered children responded to the naïve listener by producing a higher number of complete episodes and more adequate inter-sentential cohesion. Also, both groups responded to the naïve listener by increasing the proportional use of personal reference cohesive devises. These results suggested that, in the presentation of identical content, the children varied the amount of information and the style of textual coherence as a function of the listener circumstances (Liles, 1985). According to Westby (1984), when the examiner is present and can see the same stimulus picture as the child, there is a tendency for some children to resort to a more oral style. This is done as so much of the information is jointly shared that there is therefore no need to make the narrative language explicit.

2.5.2.2 INSTRUCTIONS

Specific instructions were given to each subject in every session. The instructions for each task were as follows:

1. Narrative from a Picture (Task 1): 'I want you to make up a story. A nice, long story and you can use this picture to help you.'
2. Personal Narrative (Task 2): 'Can you tell me a nice, long story about your most frightening experience/ your favourite holiday/ happiest time.'
3. Story Retelling from a Video (Task 3): 'This is a video I have just bought and I haven't seen it yet. I want you to watch the video very carefully. Once you have finished I would like you to tell the story back to me in as much detail as you can remember.'

2.5.2.3 TEST SITUATION

A: Setting

The narrative discourse productions of all the children were elicited in a quiet room with adequate lighting. The LILD subjects' narratives were video recorded in the speech therapy room at their school and the controls were recorded in a quiet room at their respective homes.

During the narrative discourse tasks, the examiner was supportive by providing encouraging comments, reacting to content without providing new information. The examiner also requested additional information without being directive (Morris-Friehe & Sanger, 1992). The subjects were given as much time as necessary to complete the narrative tasks. Once the subjects completed the task, the researcher praised them and thanked them for helping in the study (Purcell and Liles, 1992).

B: Equipment

The data was videotaped on a JVC 12X Videomovie Hyper Zoom camera (Serial number: 10163186) in its entirety, and transcribed verbatim for later analysis.

2.5.2.4 SUBJECT'S TEST-SITUATION BEHAVIOUR

Over the two weeks of testing, a descriptive account of each subject's test-situation behaviour was kept. This allowed the investigator to record specific behaviours and/or comments that reflected attitudes toward the stories, equipment, and examiner (Strong & Shaver, 1991). The children's adaptation to the testing situation became relevant later, in considering the stability of their oral cohesion scores (Strong & Shaver, 1991). Furthermore, Lahey (1988) stated than an unmotivated child may produce fewer elements in their narratives, for example emotive language. This is important to note when the examiner is interested in analyzing evaluation. In this study all subjects appeared to be motivated across all three testing sessions.

2.6 Treatment of the Data

2.6.1 Transcription of the narrative samples

All of the generated and retold stories were transcribed verbatim. The transcribed data were prepared for analysis by bracketing unintelligible utterances. The bracketed units were not included in the final word count (Strong & Shaver, 1991). All false starts and repetitions, except for semantically empty place holders (e.g. uh, uhm, err, ar, etc.), were included in the word count as these elements were viewed as important indicators and that valuable information would be lost if they were excluded from the word count. Research has found that LILD children may have difficulties remembering and finding specific words when they are engaged in conversation or have to answer specific questions. These word finding difficulties may result in spoken sentences which are not grammatical and which may contain an abundance of starters, place holders, indefinite references, word substitutions, circumlocutions, and perseverative repetitions of words, phrases, or clauses (Wiig & Semel, 1980). Finally all contractions were counted as one word (Strong and Shaver, 1991).

2.6.2 Segmentation of transcripts

The transcribed data was segmented according to an 'event'. For the purpose of this study an event was defined as a change in place, character, time or action (adopted from Ogilvy, 1995). The segmentation using events was used to allow for ease of analysis for coherence and analysis of the amount of information conveyed. All repetitions and false starts were excluded from the segmentation procedure.

2.6.3 Analysis of narrative discourse productions

A number of perspectives and procedures have been used in the analysis of narrative discourse (Hux et al., 1997; Liles, 1985; Liles et al., 1993; Merritt and Liles, 1989; Purcell and Liles, 1992; Ripich and Griffith, 1988; and Roth and Spekman, 1986). According to Glosser and Deser (1990), analysis of discourse productions allows researchers to examine both the macrolinguistic and microlingustic abilities of the individual. The narratives in this study were analysed according to macrolinguistic organisation. Coherence and cohesion were the measures of macrolinguistic organisation (Glosser & Deser, 1990).

2.6.3.1 COHERENCE

Coherence has been used to characterise conceptual organisational aspects of discourse such as plausability, conventionality and conclusiveness of the text (Ulatowska, North & Macaluso-Haynes, 1981). The narrative samples in this study were analysed according to Labov's (1977) narrative structure elements that constitute a well-formed narrative. A well-formed narrative consists of:

- Abstract: This refers to the one or two clauses summarising the whole story.
- Orientation: At the beginning of the narrative the time, place, persons and their activity or the situation is defined.
- Complicating action: This is the sequence of events, which is presented chronologically.
- Evaluation: Various elements are used to express the narrator's feelings about the characters or events.
- Resolution: These are one or more statement, which reflect the final events or end the experience.
- Coda: These are the free clauses that indicate the narrative is finished.

A conventional complete narrative begins with the orientation, then proceeds to complicating action, where the evaluation is included. Once the evaluation is added, the narrative is concluded with the resolution, and then finally the coda is used to return the listener to the present time (Labov, 1977).

Evaluation is one of the most important elements in a narrative and plays a large part in the creation of a well-formed narrative (Labov, 1977). For these reasons it was analysed separately to the above-mentioned categories.

2.6.3.2 EVALUATION

Evaluation specifies why the events of the narrative are reportable. 'Evaluative devices say to us: this was terrifying, dangerous, weird, wild, crazy; or amusing, hilarious, wonderful; more generally, that it was strange, uncommon, or unusual – that is, worth reporting' (Labov, 1977: 371). A story without evaluation becomes uninteresting and pointless to the listener. Evaluation is composed of four major categories: intensifiers, comparators, correlatives, and explicators. Each category consists of a number of subtypes (Labov, 1977). These are illustrated in Table 2.3 below. Each narrative was analysed according to these four categories and their respective subtypes.

TABLE 2.3: CATEGORIES OF EVALUATION AND THEIR RESPECTIVE SUBTYPES.

EVALUATIVE CATEGORY	SUBTYPE
INTENSIFIERS	EXPRESSIVE PHONOLOGY QUANTIFIERS REPETITION RITUAL UTTERANCES GESTURE
COMPARATORS	NEGATIVES FUTURES MODALS QUESTIONS OR-CLAUSES QUASIMODALS IMPERATIVES SUPERLATIVES COMPARATIVES
CORRELATIVES	PROGRESSIVES APPENDED PARTICIPLES DOUBLE APPOSITIVES DOUBLE ATTRIBUTIVES
EXPLICATIVES	

(Labov, 1977)

2.6.3.3 COHESION

The most familiar work in the area of cohesion is that of Halliday and Hasan (1976). They defined cohesion as the set of possibilities that exists in language for making a text hang together. The word 'text' refers to any spoken or written passage that forms a unified whole. Cohesion is thought to reflect the individual's competence in connecting a series of events into a logical system (Coggins et al., 1998). Cohesion is expressed partly through grammar and partly through vocabulary (Halliday and Hasan, 1976). This is referred to as grammatical cohesion and lexical cohesion respectively. According to Glosser and Deser (1990), cohesion refers to the relations of meanings between elements in discourse. The single occurrence of a pair of cohesively related items is termed a cohesive tie (Halliday and Hasan, 1976 in Mentis and Prutting, 1987).

A: Cohesive Ties

An element is identified as a cohesive tie if its meaning cannot be adequately interpreted by the listener, and if the listener must search outside that sentence for the completed meaning (Liles, 1986). In addition, an element may be judged a cohesive tie if it is used as a linguistic marker that leads the listener to expect that its interpretation be outside the sentence. An item is not judged as a cohesive tie if the information referred to is recoverable within the sentence (Liles, 1985). The types of cohesive ties that were analysed in this study (as described by Halliday and Hasan, 1976) include reference ties, substitution ties, ellipsis ties, conjunction ties and lexical ties. When reference, substitution, and ellipsis ties are used, the speaker relies on words and morphemes. When conjunction ties are used, the speaker relies on both the grammatical and lexical resources of language. Most cohesive ties are syntactic and therefore adequate syntactic skills are necessary to the production of cohesive narratives (Strong and Shaver, 1991).

The percentage of each tie was calculated for each narrative sample and statistically analysed using the multivariate test of significance. Definitions of each cohesion category are presented below.

- Anaphoric Reference – This is defined as pronouns that refer to previously identified nouns.

- Demonstrative Reference – This allows the speaker to identify the referent by locating it on a scale of proximity. It refers to the use of terms 'this, that, these, those, here, there, now and then'.
- Comparative Reference – This refers to indirect reference by means of identity or similarity.
- Ellipsis – this allows the speaker to reduce redundancy in a message by only encoding the essential elements.
- Substitution – This refers to items other than personal pronouns that replace previously identified elements.
- Conjunctions – These serve a cohesive function as they relate successive utterances to each other.
- Lexical ties – A lexical item refers back to another lexical item, and is related by having a common referent.

B: Cohesive Adequacy

Cohesive adequacy refers to the percentages of complete, incomplete, and erroneous ties (Liles, 1985). The definition adopted for this study complete, incomplete and erroneous ties were as follows (Liles, 1985):

- Complete tie – A tie is complete if the information referred to by the cohesive is easily found and identified with no ambiguity.
- Incomplete tie – A tie is judged to be incomplete if the information referred to by the cohesive tie is not provided in the text.
- Erroneous tie – A tie is erroneous if the cohesive tie refers to an ambiguous or erroneous item.

Cohesive adequacy was determined by the following formula (Liles, 1985):

$$\frac{\textbf{Number of complete ties}}{\textbf{Total number of ties across all cohesive items}}$$

2.7 Statistical Procedures

The narratives produced by the non-LILD and LILD subjects varied in length, number of events (classified according to Labov's (1977) story grammar), evaluative items, and cohesive adequacy. Therefore the raw scores of the dependent measures listed in Table 2.4 below were converted into percentages in order to control for this variability. The percentages were then used to calculate the means and standard deviations for all the dependent variables. A Multiple Analysis of Variance (MANOVA) was then undertaken to examine the main and interaction effects for group, task, and time, for the dependent variables. Multivariate and univariate tests of significance were undertaken. The Pillais Test (p) was used to find levels of significance. When $p < 0.05$, significant differences were found.

TABLE 2.4: DEPENDENT VARIABLES

Total Number of Words
Total Number of Events
Ratio of Total Number of Events to Total Number of Words
Coherence
Orientation
Complicating Actions
Resolution
Evaluation
Coda
Evaluation
Intensifiers: Prolonged Vowel, Quantifiers, Repetition, Ritual Utterance, and Gesture
Comparators: Negatives, Futures, Modals, Quasimodals, Questions, Imperatives, Superlatives, and Comparators
Correlatives: Progressives, Appended Participles, Double Appositives, and Double Attributives
Explicatives
Cohesive Adequacy
Anaphoric Reference: Complete, Incomplete, and Erroneous
Demonstrative Reference: Complete, Incomplete, and Erroneous
Comparative Reference: Complete, Incomplete, and Erroneous
Ellipsis: Complete, Incomplete, and Erroneous
Substitution: Complete, Incomplete, and Erroneous
Lexical Ties: Complete, Incomplete, and Erroneous

2.8 Measures of reliability

A specific aim of this study was to apply more stringent methods of measurement in the analysis of narrative discourse. As mentioned previously, validity and reliability have become increasingly important aspects to language sampling and analysis of discourse productions (Strong and Shaver, 1991; Morris-Friehe and Sanger; Hux et al., 1997). Reliability is a central concern because it is a necessary, although not sufficient, prerequisite to the validity of the scores (Ebel, 1965; Hopkins & Stanley, 1981; Lord & Novick, 1968; Nunnally, 1978 in Strong & Shaver, 1991). If the assessment is reliable- that is, if the results of the measurement are consistent, and if the measurements are repeatable (Nunnally, 1978 in Strong & Shaver, 1991) - the scores have meaning (Strong and Shaver, 1991). As Ebel (1965: p.309) stated, "Only to the degree that test scores are reliable can they be useful for any purpose whatsoever."

Reliability also includes the notion that each measurement is subject to some degree of measurement error (also referred to as random error) (Thorndike, 1988). Data that relies on perceptual judgment is subject to measurement error, and may contain an element of subjectivity (Cucchiarini, 1995). Measurement error reduces the repeatability of the assessments, and so their reliability. There are three sources of random error that are typically of concern: (1) inconsistency in coding or scoring; (2) elements of the test; and (3) variations in the trait being assessed (Nunnally, 1978).

For the purpose of this study inter-observer agreement was used to determine transcription and score reliability as it is a common technique for estimating reliability in speech-language pathology research (Cordes, 1994 in Hux et al., 1997). The three transcribers and two scorers were all qualified speech therapists.

2.8.1 Inter-rater Reliability

Inter-observer agreement was determined in this study. This served to assess the extent to which different observers or raters agree that they see the same phenomena (Hux et al., 1997). According to Hux et al., (1997) inter-rater agreement consists of a number of assumptions. Firstly, the raters must share an understanding of what trait is being rated.

Secondly, the raters must be able to determine the occurrence or non-occurrence of what is being measured. Finally, the raters must have a common means of recording the occurrence of the targeted behaviour or trait.

2.8.1.1 TRANSCRIPTION RELIABILITY

The transcription reliability was determined by word-by-word reliability (also referred to as a point by point agreement or percentage agreement) (Cucchatini, 1995). The transcription agreement indices are generally calculated by a word-by-word agreement procedure.

The word-by-word percentage were calculated using the following formula (Cucchatini, 1995):

$$\frac{\text{Number of Agreements}}{\text{Number of Agreements + Number of Disagreements}} \text{ X } 100$$

(Total Words)

In this study, two transcribers randomly selected 20% of each sample of narrative productions, and independently transcribed them (Strong & Shaver, 1991). Inter-rater word-by-word agreements for Transcriber 1 versus Transcriber 2, Transcriber 2 versus Transcriber 3, and Transcriber 1 versus Transcriber 3, are presented below in Tables 2.5, 2.6, and 2.7 respectively.

TABLE 2.5: WORD-BY-WORD AGREEMENT FOR TRANSCRIPTION: TRANSCRIBER 1 VERSUS TRANSCRIBER 2

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	93.94	95.45	100.00	90.91	89.29	95.52	97.51	99.24	98.92
LILD2	90.91	85.71	95.12	100.00	95.24	93.10	97.62	92.16	95.28
LILD3	92.86	95.56	93.33	95.74	100.00	98.00	100.00	100.00	88.57
Non-LILD1	100.00	98.11	95.89	100.00	98.78	87.60	99.67	97.08	97.90
Non-LILD 2	100.00	85.71	85.14	97.06	100.00	81.25	93.75	95.97	98.58
Non-LILD 3	100.00	100.00	100.00	100.00	100.00	100.00	95.92	99.43	98.92

TABLE 2.6: WORD-BY-WORD AGREEMENT FOR TRANSCRIPTION: TRANSCRIBER 2 VERSUS TRANSCRIBER 3

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	89.29	97.30	100.00	93.02	97.30	100.00	99.62	100.00
LILD2	100.00	100.00	100.00	95.23	100.00	100.00	100.00	100.00	100.00
LILD3	100.00	100.00	100.00	97.87	100.00	98.00	97.50	97.87	100.00
Non-LILD1	100.00	100.00	97.26	95.24	100.00	100.00	97.99	99.27	100.00
Non-LILD 2	100.00	81.63	100.00	100.00	100.00	100.00	91.67	97.32	96.74
Non-LILD 3	94.64	100.00	100.00	100.00	100.00	100.00	99.19	99.43	96.10

TABLE 2.7: WORD-BY-WORD AGREEMENT FOR TRANSCRIPTION: TRANSCRIBER 1 VERSUS TRANSCRIBER 3

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	93.94	89.29	97.30	90.91	93.18	97.01	97.51	98.85	98.92
LILD2	90.91	85.71	95.12	95.23	95.24	93.10	97.62	92.16	95.28
LILD3	92.86	95.56	93.33	91.49	100.00	96.00	97.50	97.87	88.57
Non-LILD1	100.00	98.11	97.26	95.24	98.78	87.50	97.99	96.35	97.90
Non-LILD 2	100.00	95.92	85.14	97.06	100.00	81.25	97.92	93.29	95.41
Non-LILD 3	94.64	100.00	100.00	100.00	100.00	100.00	94.74	98.85	97.05

Word-by-word agreement resulted in mean percentage agreements of 95.87% for transcribers 1 and 2, 98.32% for transcribers 2 and 3, and 93.7% for transcribers 1 and 3. These results indicate high inter-rater transcription reliability.

2.8.1.2 Coder Reliability

An additional coder was trained to analyse a randomly selected 20 % of each narrative sample (Strong and Shaver, 1991). The coder selected the samples randomly and analysed the transcribed data according to the methods that were used in this study. This included

coding of coherence, evaluation, and cohesion. This allowed the researcher to determine whether the method of analysis that was used was consistent across all narrative samples.

The coder was trained for approximately 4 to 6 hours before inter-rater coding began. Training included discussion of scoring including types of evaluative elements found in narrative productions, coherence, and cohesion. Practice trials were carried out on samples that were not included into the final samples used to determine inter-coder reliability. The coder randomly selected 20% of each sample and coded each transcription independently.

Inter-rater word-by-word agreement for coding of coherence, evaluation and cohesion was calculated, and is presented in Tables 2.8, 2.9, and 2.10 respectively. Word-by-word agreement resulted in mean percentage agreements of 98.78% for coherence, 97.82% for evaluation, and 99.78 % for cohesion. These results indicate high inter-rater coder reliability.

TABLE 2.8: INTER-RATER RELIABILITY FOR COHERENCE

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	100.00	100.00	100.00	93.75	92.12	98.09	96.65	95.16
LILD2	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
LILD3	100.00	100.00	100.00	100.00	90.90	95.83	100.00	100.00	100.00
Non-LILD1	100.00	100.00	100.00	100.00	97.67	100.00	99.36	98.67	98.84
Non-LILD 2	96.00	100.00	100.00	94.12	100.00	100.00	99.27	97.83	99.27
Non-LILD 3	100.00	97.06	100.00	100.00	96.00	100.00	97.76	99.04	100.00

TABLE 2.9: INTER-RATER RELIABILITY FOR EVALUATION

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	100.00	100.00	100.00	92.86	100.00	100.00	98.61	100.00
LILD2	100.00	100.00	100.00	100.00	100.00	83.33	100.00	100.00	100.00
LILD3	100.00	90.00	100.00	100.00	100.00	100.00	100.00	100.00	93.75
Non-LILD1	93.75	100.00	100.00	82.14	100.00	96.15	100.00	100.00	99.08
Non-LILD 2	91.67	91.30	100.00	100.00	96.00	100.00	97.25	98.63	97.75
Non-LILD 3	100.00	94.55	98.25	92.31	100.00	100.00	96.10	98.56	100.00

TABLE 2.10: INTERRATER RELIABILITY FOR COHESION

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	100.00	100.00	100.00	100.00	100.00	99.55	99.51	100.00
LILD2	100.00	100.00	100.00	96.00	100.00	100.00	100.00	98.28	100.00
LILD3	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
Non-LILD1	100.00	100.00	100.00	100.00	100.00	100.00	99.81	100.00	99.68
Non-LILD 2	100.00	100.00	99.28	100.00	100.00	100.00	99.84	99.80	100.00
Non-LILD 3	97.67	100.00	100.00	100.00	100.00	98.89	99.80	100	99.79

2.8.2 Intra-rater Reliability

2.8.2.1 Transcription Reliability

The researcher randomly selected 15% of each narrative sample for transcription (Morris-Friehe and Sanger, 1992). The researcher transcribed the selected samples a second time. A word-by-word agreement was calculated and an agreement percentage determined. The results are presented in Table 2.11.

TABLE 2.11: INTRARATER TRANSCRIPTION RELIABILITY

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	93.94	95.45	100.00	90.91	89.29	95.52	97.51	99.24	98.92
LILD2	90.91	85.71	95.12	100.00	95.24	93.10	97.62	92.16	95.28
LILD3	92.86	95.56	93.33	95.74	100.00	98.00	100.00	100.00	88.57
Non-LILD1	100.00	98.11	95.89	100.00	100.00	87.60	99.67	97.08	97.90
Non-LILD 2	100.00	85.71	100.00	97.06	100.00	81.25	97.92	95.97	98.58
Non-LILD 3	100.00	100.00	100.00	100.00	100.00	100.00	95.92	99.43	98.92

As can be seen from Table 2.11 above, a mean agreement percentage of 94.41% for intra-rater reliability was obtained, indicating high intra-rater reliability for transcription.

2.8.2.2 CODER RELIABILITY

15% of each narrative sample was randomly selected (Morris-Friehe and Sanger, 1992). The selected sample was scored a second time by the researcher. Again, a word-by-word agreement was calculated and agreement percentages determined for coherence, evaluation, and cohesion. The results are shown in Tables 2.12 for coherence, Table 2.13 for evaluation, and 2.14 for cohesion.

TABLE 2.12: INTRARATER RELIABILITY FOR COHERENCE

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	100.00	100.00	100.00	93.75	92.12	98.09	96.65	95.16
LILD2	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
LILD3	100.00	100.00	100.00	100.00	90.90	95.83	100.00	100.00	100.00
Non-LILD1	100.00	100.00	100.00	100.00	97.67	100.00	99.36	98.67	98.84
Non-LILD 2	96.00	100.00	100.00	94.12	100.00	100.00	99.27	97.83	99.27
Non-LILD 3	100.00	97.06	100.00	100.00	96.0	100.00	97.76	99.04	100.00

TABLE 2.13: INTRARATER RELIABILITY FOR EVALUATION

	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	100.00	80.00	100.00	100.00	88.89	90.00	92.55	94.45	93.44
LILD2	100.00	85.71	92.31	100.00	83.33	100.00	100.00	90.90	90.90
LILD3	100.00	100.00	80.00	85.71	83.33	90.91	88.89	93.33	93.33
Non-LILD1	87.50	89.29	88.46	85.71	84.31	92.31	95.04	94.95	96.33
Non-LILD 2	83.33	95.65	100.00	88.89	96.00	95.00	97.25	95.89	94.38
Non-LILD 3	92.31	89.09	98.25	88.24	90.91	97.30	94.81	92.81	97.70

TABLE 2.14: INTRA-RATER RELIABILITY FOR COHESION									
	A1	A2	A3	B1	B2	B3	C1	C2	C3
LILD1	95.65	96.00	91.23	95.24	92.00	96.73	98.49	98.04	97.10
LILD2	100.00	95.16	95.16	96.00	94.64	97.06	98.69	100.00	91.60
LILD3	95.77	87.76	85.71	98.15	96.55	100.00	94.06	93.86	97.83
Non-LILD1	99.00	100.00	100.00	100.00	100.00	99.19	99.25	98.70	100.00
Non-LILD 2	98.63	99.35	100.00	98.36	99.08	98.59	99.38	99.18	97.65
Non-LILD 3	97.67	98.40	98.23	99.16	96.55	98.89	99.00	98.09	98.52

Word-by-word intra-rater reliability measures resulted a mean agreement percentage of 98.77% for coherence, 89.23% for evaluation and 97.21% for cohesion.

This section presented the methodology adopted in this study. In the following section the results of the language impaired learning disabled and non-learning disabled young adolescent's performance on the narrative discourse tasks will be presented.

3 RESULTS

In this section the results of the findings from the analysis of the narrative discourse productions of the language impaired learning disabled (LILD) and non-learning disabled (non-LILD) subjects are presented. As discussed in the previous section, the analysis was undertaken on a macrolinguistic level. This includes the analysis of coherence and cohesion.

As discussed in the previous section, the percentages were used to calculate means and standard deviations. Table 3.1 displays the means for total number of words, ratio of number of events to total number of words, and events classified according to Labov's (1977) story grammar. Table 3.2 below displays the means for the evaluative dependent variables listed. Finally, Table 3.3 displays the means for cohesive adequacy for the LILD and non-LILD groups.

To examine the main and interaction effects for the dependent language sample variables listed above, a Multiple Analysis of Variance (MANOVA) was used. Computations were completed with the Statistical Program for the Social Sciences (SPSS) program. The MANOVA was used to find three main effects: group (control versus experimental group), task (narrative from picture, personal narrative, and narrative retelling) and time (three testing sessions). In addition, interaction effect for group by task, group by time, task by time, and group by task by time, were examined. First, multivariate and then univariate tests of significance were undertaken. The univariate tests of significance were applied in order to evaluate every individual dependent variable independently. The Pillais test (P) was used to find levels of significance. The 0.05 level of significance was selected as the error rate for each hypothesis.

TABLE 3.1: MEANS AND STANDARD DEVIATIONS FOR TOTAL NUMBER OF WORDS, RATIO OF NUMBER OF EVENTS TO TOTAL NUMBER OF WORDS, AND EVENTS FOR NON-LILD AND LILD SUBJECTS

		PICTURE NARRATIVE		PERSONAL NARRATIVE		RETELLING OF A NARRATIVE	
	SUBJECTS	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
TOTAL NUMBER OF WORDS	NON-LILD	639.67	108.88	662.33	201.61	2838.33	455.60
	LILD	386.67	77.9	526.66	248.78	1692.66	1216.17
RATIO OF NUMBER OF EVENTS TO NUMBER OF WORDS	NON-LILD	7.8	1.73	7.8	1.73	9.11	0.58
	LILD	7.22	3.68	7.67	2.15	7.8	6.27
EVENTS	NON-LILD	88.67	12.97	84.0	28.4	363.00	67.91
	LILD	48.67	8.21	60.0	26.9	283.33	149.8
ORIENTATION	NON-LILD	0.3	0.14	0.27	0.16	0.11	0.02
	LILD	0.18	0.1	0.21	0.11	0.08	0.05
COMPLICATING ACTION	NON-LILD	2.3	0.16	2.55	0.4	2.78	0.0
	LILD	1.23	1.46	1.81	0.47	1.63	1.56
RESOLUTION	NON-LILD	0.23	0.0	0.23	0.11	0.08	0.03
	LILD	0.18	0.0	0.17	0.11	0.05	0.02
CODA	NON-LILD	0.05	0.07	0.0	0.08	0.02	0.02
	LILD	0.0	0.06	0.08	0.06	0.02	0.02
EVALUATION	NON-LILD	3.11	1.2	3.82	1.43	3.3	1.07
	LILD	0.87	0.1	1.05	0.3	1.3	1.15

TABLE 3.2: MEANS AND STANDARD DEVIATIONS FOR EVALUATIVE ELEMENTS FOR NON-LILD AND LILD SUBJECTS

		Picture Narrative		Personal Narrative		Retelling of a Narrative	
Evaluative Element	Subjects	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Intensifiers							
Expressive phonologys	Non-LILD	40.173	48.335	30.620	23.832	40.497	34.676
	LILD	0.000	0.000	0.000	0.000	3.433	2.977
Quantifiers	Non-LILD	86.360	21.699	102.773	39.378	61.550	20.258
	LILD	77.170	21.626	117.527	63.819	62.733	11.356
Repetition	Non-LILD	11.253	10.589	6.627	7.238	9.307	5.835
	LILD	5.557	9.624	0.000	0.000	0.353	0.612
Ritual Utterance	Non-LILD	24.073	7.028	28.587	15.209	21.657	8.074
	LILD	54.700	38.973	27.287	39.651	35.537	47.144
Gesture	Non-LILD	26.533	26.533	25.883	30.084	29.680	24.922
	LILD	0.000	0.000	10.183	9.753	17.633	28.446
Comparators							
Negatives	Non-LILD	24.747	11.243	15.800	10.324	23.797	11.679
	LILD	20.850	9.377	10.320	17.875	19.443	20.023
Futures	Non-LILD	5.557	9.624	0.000	0.000	5.273	4.210
	LILD	0.000	0.000	10.183	9.753	12.120	9.915
Modals	Non-LILD	23.123	10.854	13.877	9.162	26.973	12.776
	LILD	35.837	23.653	24.107	37.507	35.730	36.701
Questions	Non-LILD	0.000	0.000	3.193	2.958	13.847	5.389
	LILD	0.000	0.000	0.000	0.000	1.280	2.217
Quasimodals	Non-LILD	3.200	2.808	2.320	2.519	2.703	2.844
	LILD	0.000	0.000	0.000	0.000	0.547	0.947
Or-Clauses	Non-LILD	7.053	6.155	1.397	1.222	2.170	1.270
	LILD	0.000	0.000	0.000	0.000	0.353	0.612
Imperatives	Non-LILD	1.167	2.021	0.000	0.000	7.937	6.226
	LILD	0.000	0.000	0.000	0.000	1.767	3.818
Superlatives	Non-LILD	1.283	2.223	23.360	23.362	1.990	0.376
	LILD	4.763	8.250	26.113	28.595	0.000	0.000
Comparatives	Non-LILD	4.643	4.247	2.557	4.428	5.963	4.234
	LILD	3.030	5.248	0.000	0.000	4.763	5.722
Correlatives							
Progressives	Non-LILD	28.617	6.135	13.123	3.812	27.760	14.298
	LILD	89.473	28.977	52.253	44.147	65.803	7.001
Appended Participles	Non-LILD	0.607	1.051	1.633	1.497	0.785	0.191
	LILD	0.000	0.000	0.000	0.000	2.947	2.617
Double Appositives	Non-LILD	0.000	0.000	0.653	1.132	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	1.667	2.887
Double Attributives	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	0.000	0.000
Explicatives							
Explicatives	Non-LILD	11.600	5.956	26.793	5.850	18.700	6.765
	LILD	3.030	5.248	16.480	15.637	28.813	11.885

TABLE 3.3: MEANS AND STANDARD DEVIATIONS FOR COHESIVE ADEQUACY FOR NON-LILD AND LILD SUBJECTS

		Picture Narrative		Personal Narrative		Retelling of a Narrative	
Cohesive Element	Subjects	Mean	Standard Deviation	Mean	Standard Deviation	Mean	Standard Deviation
Anaphoric Reference							
Complete	Non-LILD	299.187	1.409	297.190	4.868	293.170	3.201
	LILD	297.223	4.809	295.170	8.366	297.480	4.364
Incomplete	Non-LILD	0.813	1.409	2.810	4.868	4.666	2.601
	LILD	2.777	4.809	1.517	2.627	1.676	7.713
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	1.629	1.205
	LILD	0.000	0.000	3.320	5.750	1.165	1.461
Demonstrative Reference							
Complete	Non-LILD	296.967	5.254	296.960	6.727	295.840	5.358
	LILD	277.923	38.238	300.000	0.000	293.114	10.317
Incomplete	Non-LILD	0.000	0.000	0.000	0.000	2.407	2.321
	LILD	19.047	32.990	0.000	0.000	1.077	1.865
Erroneous	Non-LILD	3.030	5.248	3.037	5.260	1.753	3.037
	LILD	3.030	5.248	0.000	0.000	5.810	8.453
Comparative Reference							
Complete	Non-LILD	166.666	115.470	266.667	57.735	300.000	0.000
	LILD	66.666	115.470	150.000	165.470	230.278	77.943
Incomplete	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	3.518	5.774
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	33.333	57.735	16.667	28.868	8.333	14.434
Substitution							
Complete	Non-LILD	33.333	57.735	116.666	165.470	260.000	69.470
	LILD	66.667	57.735	133.333	57.735	155.557	166.388
Incomplete	Non-LILD	0.000	0.000	16.667	28.868	6.667	11.547
	LILD	0.000	0.000	0.000	0.000	11.110	19.243
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	0.000	0.000
Ellipsis							
Complete	Non-LILD	166.667	173.205	100.000	115.470	292.000	13.856
	LILD	133.333	173.205	133.333	57.735	190.477	131.965
Incomplete	Non-LILD	0.000	0.000	0.000	0.000	8.000	13.856
	LILD	0.000	0.000	0.000	0.000	4.763	8.250
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	4.763	8.250
Conjunction							
Complete	Non-LILD	166.666	115.470	266.667	57.735	300.000	0.000
	LILD	66.666	150.000	165.470	0.000	255.001	0.000
Incomplete	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	3.333	5.774
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	0.000	0.000	0.000	0.000	0.000	0.000
Lexical							
Complete	Non-LILD	300.000	0.000	300.000	0.000	298.820	2.044
	LILD	294.443	9.624	300.000	0.000	296.807	2.834
Incomplete	Non-LILD	0.000	0.000	0.000	0.000	0.000	0.000
	LILD	5.557	0.000	0.000	0.000	1.840	2.128
Erroneous	Non-LILD	0.000	0.000	0.000	0.000	1.180	2.425
	LILD	0.000	0.000	0.000	0.000	1.350	2.338

3.1 Total Number of Words

The univariate test of significance revealed one main effect for group (F = 10.12; df =1, 36; p = 0.003), one main effect for task (F = 50.47, df = 2, 36 ; p = 0), and no main effect for time. There was an interaction effect for group by task (F = 3.94; df = 2, 36; p = 0.028).

The main effect for group indicates that there were significant differences between the non-LILD and LILD young adolescents on the total number of words used. The non-LILD used significantly more words than the LILD young adolescents. The main effect for task shows that the retelling task produced significantly more words than the other two tasks. There was no main effect for time, indicating that the number of words used across time was stable. Finally the interaction effect for group by stimulus indicates that the differences between the two groups on total number of words is significantly maximised in the story retelling task. The group by stimulus interaction effect is depicted in Figure 3.1 below.

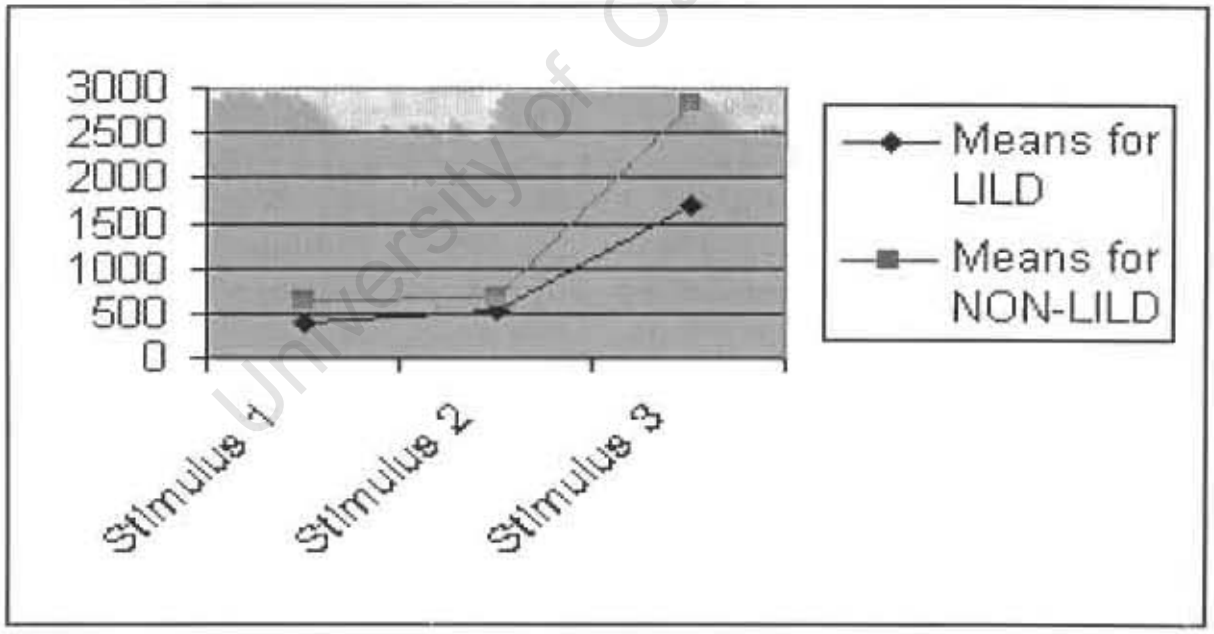


FIGURE 3.1: INTERACTION EFFECT FOR GROUP BY STIMULUS FOR TOTAL NUMBER OF WORDS

3.2 Ratio of Events to Total Number of Words

There was a main effect for group (F = 4.25; df = 1, 36; p = 0.047), no main effect for task, one main effect for time (F = 8.51; df = 2, 36; p = 0.01), and one interaction effect for group by time by stimulus (F = 3.03; df = 4, 36; p = 0.03), when the univariate test of significance was applied. The results from this dependent variable must be viewed with caution, as the analysis results were unstable. The main effect for group indicates that there were differences between the LILD and non-LILD on the ratio of events to total number of words. The general trend was for the LILD subjects to use more words per event than the non-LILD subjects The main effect for time shows that session two produced more words per event than the other two sessions. Finally, the interaction effect for group by time by task, indicates that the unique combination of time 2 and the story retelling task, maximized group differences.

3.3 Events Classified According to Labov's (1977) Story

The variable Abstract was not included in the analysis because the whole range was zero for both groups. Although total number of events, coda, resolution, and to a lesser extent orientation, were analysed, there was little variance within them, which resulted in unstable analysis results. In total, the univariate test of significance revealed 4 group main effects, 4 stimulus main effects, zero main time effects, and 1interaction effect for group by stimulus.

The three main group effects included: total number of events (F = 13.42; df = 1, 36; p = 0.001), orientation (F = 5.40; df = 1, 36; p = 0.026), complicating action (F = 23.87; df = 1, 36; p = 0), and evaluation (F = 70.25; df = 1, 36; p = 0). The general trend was for the non-LILD subjects to use more total number of events, orientation and complicating action than the LILD subjects. Furthermore, the non-LILD subjects produced significantly more evaluation than the LILD subjects.

The three main stimulus effects included: total number of events (F = 50.27; df = 2, 36; p = 0), orientation (F = 10.79; df = 2, 36; p = 0), resolution (F = 15.77; df = 2, 36; p = 0), and coda (F = 5.26; df = 2, 36; p = 0.01). The general trend was that more orientation,

resolution, and coda were used in personal narratives and picture narrative tasks than the story-retelling task. However, more total number of events was used in the story retelling task. The interaction effect for group by stimulus indicated that the differences between the two groups were significantly maximized in the story-retelling task. This interaction effect is depicted in Figure 3.2.

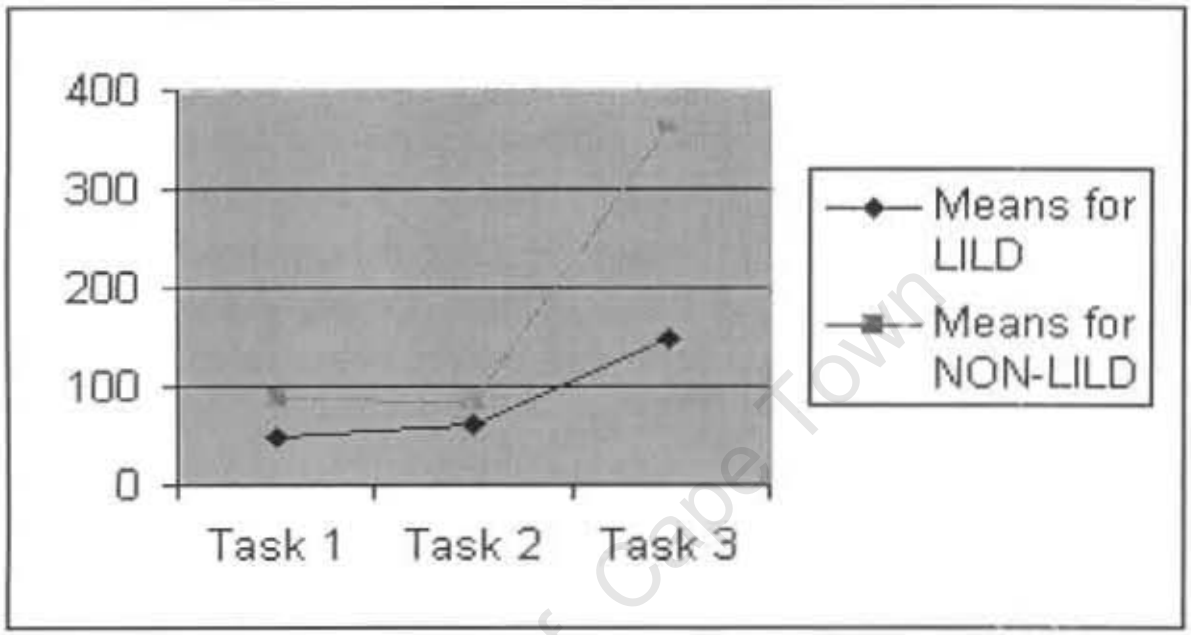


FIGURE 3.2: INTERACTION EFFECT FOR GROUP BY TASK FOR TOTAL NUMBER OF EVENTS

3.4 Evaluation

When the multivariate test of significance was calculated, there were no main effects for time, 2 main effects for group, and no main effect for task. There was 1 main effect for time, 6 main effects for group, 4 main effects for task when the univariate test of significance was calculated. Furthermore, 1 interaction effect for group by task was found using the univariate test of significance.

3.4.1 Main Effects for Time

When the multivariate test of significance was applied, none of the dependent evaluation variables (intensifiers, comparators, and correlatives) were significantly different for the

three testing times. When the univariate test was applied, only one variable was significant for time: explicatives ($F = 6.49$; $df = 2, 36$; $p = 0.04$). No other evaluative element changed significantly over time.

3.4.2 Main Effects for Task

When the multivariate test of significance was applied none of the dependent evaluation variables (intensifiers, comparators, and correlatives) were significantly different for the three tasks: narrative from a picture, personal narrative, and story retelling.

When the univariate test of significance was applied, four of the dependent evaluative variables were significantly different for the three tasks: questions ($F = 13.39538$; $df = 2, 12$; $p = 0.01$), imperatives ($F = 4.83807$; $df = 2, 12$; $p = 0.029$), superlatives ($F = 4.34042$; $df = 2,12$; $p = 0.038$), and explicatives ($F = 5.65$; $df = 2, 36$; $p = 0.019$). With respect to comparators, the retelling task tended to yield more questions and imperatives. On the other hand, the personal narrative task elicited significantly more superlatives than the other two tasks. In addition, the personal narrative produced significantly more explicatives in this study.

3.4.3 Main Effects for Group

There were two main effects for group when the multivariate test of significance was used: comparators ($F = 11.98$; $df = 9, 4$; $p = 0.015$) and correlatives ($F = 7.43$; $df = 2, 10$; $p = 0.011$).

When the univariate test of significance was used, six of the dependent evaluative variables were significantly different for the two groups: expressive phonology ($F = 8.47997$; $df = 1, 12$; $p = 0.013$), repetition ($F = 4.65807$; $df = 1, 12$; $p = 0.05$), questions ($F = 17.44602$; $df = 1, 12$; $p = 0.001$), quasimodals ($F = 7.61586$; $df = 1, 12$; $p = 0.017$), or-clauses ($F = 7.64317$; $df = 1, 12$; $p = 0.017$) and progressives ($F = 16.15958$; $df = 1, 11$; $p = 0.02$). With respect to intensifiers, the non-LILD used significantly more expressive phonology and repetition. Three of the six main effects were found with comparator indicators: questions, quasimodals and or-clauses. Again, the non-LILD used significantly more

questions, quasimodals, and or-clauses. On the other hand, the LILD subjects used significantly more progressives than the non-LILD.

3.4.4 Interactive Effects: Group by Task

No interactive effects for group by task were found for any dependent evaluative variable, when the multivariate test of significance was used. When the univariate test of significance was used, one interactive effect for group by task was found: questions ($F = 8.98993$; $df = 2, 12$; $p = 0.04$). The interaction effect depicted in Figure 3.3 indicates that the story retelling task maximizes the differences between the non-LILD and LILD subjects on questions.

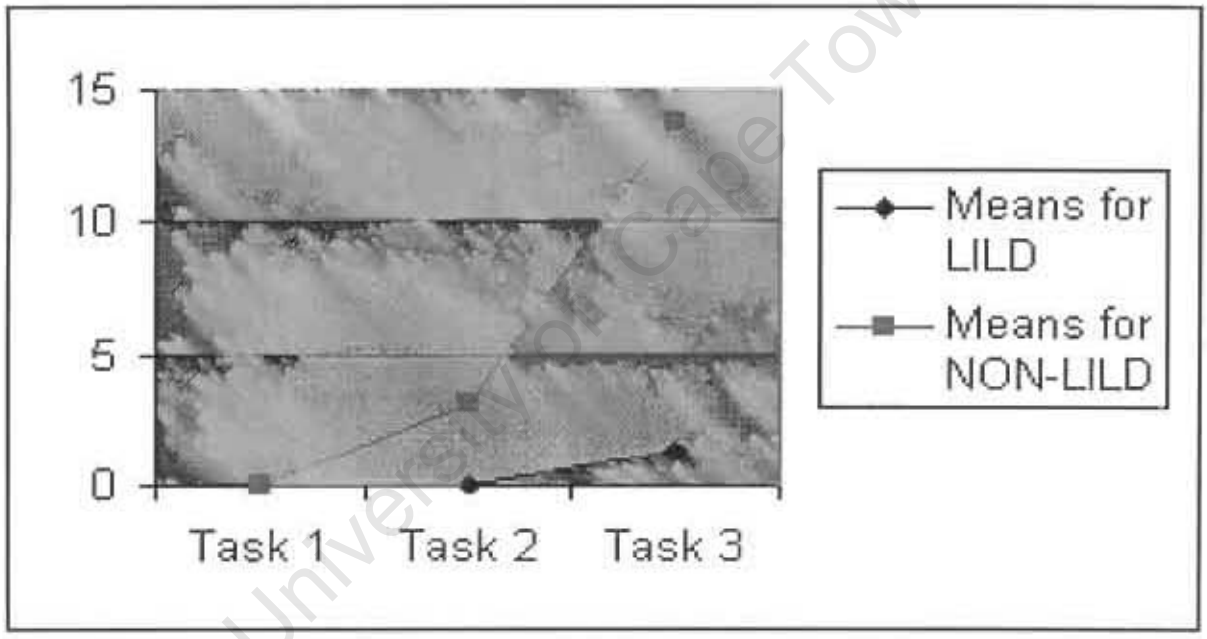


FIGURE 3.3: INTERACTION EFFECT FOR GROUP BY STIMULUS FOR QUESTIONS

3.5 Cohesion

There was one main effect for group, one main effect for task and no main effect for time, when the multivariate test of significance was applied. When the univariate test of significance was calculated, there were two main effects for group, 3 main effects for task, and no main effect for time. No interaction effects were found.

TABLE 2.1: BIOLOGICAL AND CLINICAL INFORMATION OF THE LILD SUBJECTS

	LILD 1	LILD 2	LILD 3
CHRONOLOGICAL AGE	13.0	13.0	13.2
SEX	MALE	MALE	MALE
SCHOOL	SCHOOL FOR LEARNING DISABILITIES	SCHOOL FOR LEARNING DISABILITIES	SCHOOL FOR LEARNING DISABILITIES
GRADE	6	6	6
NO. OF YEARS AT SCHOOL	7 (1 REPEAT)	7 (1 REPEAT)	7 (1 REPEAT)
SIGNIFICANT MEDICAL HISTORY	N.A.D.	▪ FREQUENT EAR INFECTIONS ▪ ADHD	ALLERGIES
MEDICATION	NAD	RITALIN	NAD
I.Q.	AVERAGE	AVERAGE	ABOVE AVERAGE
1ST LANGUAGE	ENGLISH	ENGLISH	ENGLISH
PREVIOUS SPEECH THERAPY REPORTS	HISTORY OF SPEECH DIFFICULTIES, RECEPTIVE AND EXPRESSIVE LANGUAGE DELAY, AUDITORY PERCEPTUAL DIFFICULTIES, AND WORD-FINDING DIFFICULTY	HISTORY OF LIMITED AUDITORY MEMORY, AND LIMITED EXPRESSIVE LANGUAGE ABILITIES	HISTORY OF DELAYED EXPRESSIVE LANGUAGE, WEAK AUDITORY PERCEPTUAL SKILLS, WEAK AUDITORY MEMORY SKILLS, AND WORD-FINDING DIFFICULTY
CURRENT THERAPY	SPEECH THERAPY ONCE A WEEK FOR WRITTEN LANGUAGE DIFFICULTIES	SPEECH THERAPY TWICE A WEEK FOR EXPRESSIVE AND WRITTEN LANGUAGE DIFFICULTIES	SPEECH THERAPY ONCE A WEEK FOR WRITTEN LANGUAGE DIFFICULTIES
GENERAL EDUCATION REPORTS	▪ POOR WRITTEN LANGUAGE SKILLS ▪ POOR SPELLING ▪ POOR MATHEMATICAL ABILITIES ▪ RECEIVED OCCUPATIONAL THERAPY	▪ POOR WRITTEN SKILLS ▪ RECEIVES REMEDIAL LESSONS	▪ RECEIVED OCCUPATIONAL THERAPY AND REMEDIAL THERAPY ▪ WEAK WRITTEN LANGUAGE SKILLS

2.3.3.2 THE CONTROL SUBJECTS

A summary of the biological information and clinical information for the control subjects (NON-LILD) is illustrated in Table 2.2 below.

TABLE 2.2: BIOLOGICAL AND CLINICAL INFORMATION OF THE CONTROL SUBJECTS

	NON-LILD 1	NON-LILD 2	NON-LILD3
CHRONOLOGICAL AGE	13.3	12.6	13.2
SEX	MALE	MALE	MALE
SCHOOL	MAINSTREAM SCHOOL	MAINSTREAM SCHOOL	MAINSTREAM SCHOOL
GRADE	7	7	7
NO. OF YEARS AT SCHOOL	7	7	7
SIGNIFICANT MEDICAL HISTORY	N.A.D.	N.A.D.	N.A.D.
MEDICATION	NONE	NONE	NONE
1ST LANGUAGE	ENGLISH	ENGLISH	ENGLISH
GENERAL EDUCATIONAL REPORT	AVERAGE STUDENT	AVERAGE STUDENT	ABOVE AVERAGE STUDENT

2.4 Pilot Study

The test procedure was piloted on one language-impaired learning disabled subject and one control subject with no known language impairment. These children were not included in the main study. The same narrative tasks were administered to both subjects individually and the discourse samples were video recorded. The purpose of the pilot investigations was to determine the suitability of the material and to determine whether the selected procedure was adequate for the elicitation of a narrative discourse sample. In addition, to determine whether the equipment that was used was suitable for recording the narratives. Finally, the pilot study was used to refine any procedural and scoring aspects.

2.5 Data Collection

2.5.1 Narrative Discourse Tasks And Materials

The elicitation procedure was designed so that the subject used a minimum of unprocessed or 'over-learned' information but not so loosely controlled that the subject's production could not be interpreted or compared to that of others (Liles, 1993).

As mentioned previously the most critical part of a study investigating the production of narrative is the procedure chosen for elicitation (Liles, 1993). The two most common types of elicitation procedures are story retelling and story generation (Scott, 1988). Both the story retelling and story generation elicitation procedures were used in this study as they involve different processes (Merrit & Liles, 1989), and the investigator was interested in examining the influence of different tasks on narrative production.

Story retelling involves recognition of the story schema, comprehension of the causal and temporal relations joining the story parts together, and then production of the story. Thus, in a recall task, a subject is asked to remember a story structure that has already been provided (Merritt & Liles, 1989).

On the other hand, the story generation task imposes increased complexity because the subject must construct a story structure of his or her own. In order to generate a story effectively, the individual must conceptualise a story schema including the characters, actions, events and plans. The subject must then systematically produce organised sentences within a coherent text so that a listener is able to comprehend the story (Merritt & Liles, 1989).

2.5.1.1 Story-Retelling

The story-retelling task was included in this study for the following reasons. Firstly, the subjects' departure from the original story provides the investigator with rich sources of

3.5.1 Main Effects For Group

There was one group main effect for comparative reference (F = 2.85; df = 3, 34; p = 0.05), when the multivariate test was calculated. The non-LILD in this study used significantly more comparative reference than the LILD young adolescents.

When the univariate test of significance was applied, two cohesive adequacy elements were significantly different for the two groups: complete comparative reference (F = 6.98; df = 1, 36; p = 0.012) and complete conjunctions (F = 6.98, df = 1, 36; p = 0.012). The non-LILD used significantly more complete comparative reference and complete conjunctions.

3.5.2 Main Effects for Task

There was one task main effect when the multivariate test was calculated: comparative reference (F = 2.44, df = 6, 70; p = 0.034). The story-retelling task elicited significantly more comparative reference than the other two tasks.

There were three task effects when the univariate test of significance was applied: complete comparative reference (F = 7.97; df = 2, 36; p = 0.001), complete substitution (F = 7.03; df = 2, 36; p = 0.03), and complete conjunctions (F = 7.97; df = 2, 36; p = 0.001). Significantly more complete comparative reference, complete substitution, and complete conjunctions were used in the story-retelling task.

This section presented the results in this study. A discussion of these findings will be presented in the following section.

4 DISCUSSION

Three questions regarding the narrative discourse productions of language impaired learning disabled young adolescents were addressed in this study. Firstly, one of the research questions was whether there were statistically significant differences between the LILD and non-LILD subjects, on total number of words, ratio of total number of words to the total number of words, total number of events, coherence, evaluation, and cohesive adequacy, irrespective of time of measurement and type of task. Secondly, this study addressed the issue of task effects on the narrative productions of LILD and non-LILD subjects. Thirdly, the examiner investigated the stability of the dependent measures over three measurement times. A discussion on the findings in this study is discussed below.

4.1 Group Membership Differences

It was expected that the LILD subjects would obtain a lower mean score than non-LILD subjects on each of the dependent measures, except for the incomplete and erroneous cohesive adequacy scores, where lower mean scores indicate higher cohesive adequacy. The results indicated that significant group differences were found for total number of words, total number of events, complicating action, total evaluation, evaluation (expressive phonology, repetition, questions, quasimodals, or-clauses, progressives), complete comparative reference, and complete conjunctions. All of the significant differences between the mean scores for the two groups were in the expected direction, except for progressives. In addition, group differences were also found for orientation. However, this latter finding must be viewed with caution given that the results were unstable due to the little variance of scores for this measure.

4.1.1 Total Number of Words

The non-LILD subject's used significantly more words in their narratives, irrespective of time of measurement and task. This finding support Feegans and Short (1984) and Roth and Spekman's (1986) studies that found that the stories generated by the learning-disabled children are shorter than their normally achieving peers.

4.1.2 Ratio of Total Number of Events and Total Number of Words

The results indicated that the LILD subjects used more words per event than the non-LILD subjects. In other words, the LILD subjects used more words to convey information than the non-LILD subjects. This finding supports Klein's (1984) study that found that some LILD children talk endlessly, but their language may be empty and repetitive. It must be noted that the inclusion of repetition of words and phrases in the word count may have contributed to these findings.

4.1.3 Coherence

As mentioned in section 2 of this study, a fully formed narrative may consist of: an abstract, orientation, complicating, resolution, coda, and evaluation (Labov, 1977). The results indicated that all subjects had the *essential* elements in their narrative discourse production: orientation, complicating action, resolution and evaluation. This supports previous research, which has contended that LILD subjects are able to organize their stories according to a story grammar (Graybeal, 1981 in Ripich and Griffith, 1988; Henshilwood, 1998; Ripich and Griffith, 1989). This further supports other research, which has stated that learning-disabled children contain the basic ability to produce stories (Klecan-Aker and Kelty, 1990; Montague, Maddux, and Dereshiwsky, 1990; Morris-Friehe and Sanger, 1992; Roth and Spekman, 1986, 1989). Finally, this finding supports Liles et al. (1995), as they state that the LILD children appear to be using, or attempting to use information typical of a normal developing child regarding the production of narrative discourse. Both the non-LILD and LILD subjects did not use Abstracts in their narratives at all. However, this element is not an essential element in narrative discourse (Ulatowska et al., 1981). Despite

Coda being found less frequently than any other element of the narrative (Labov, 1977), both groups used coda. Both groups used coda to indicate that none of the events that followed were important to the narrative, and thus brought the narrator and the listener back to the point at which they entered the narrative (Labov, 1977).

As indicated in section 3 of this study, group effects were found for the total number of events, orientation, complicating action, and evaluation. The LILD subjects provided significantly fewer total number of events (i.e. fewer units of meaning), than the non-LILD subjects. This finding supports Feagans and Short (1984), Garett (1986) and Roth and Spekman's (1986) findings that learning-disabled subjects produce significantly fewer propositions per story than the normal achieving peers, indicating that the stories generated by the learning-disabled subjects contained fewer units of meaning than those produced by their normally achieving peers. However, it contradicts Henshilwood's (1998) findings that children with learning disabilities did as well as non-learning disabled subjects, with regards to the amount of information given. Henshilwood (1998) indicated that the nature and complexity of the task used in her study might have been too simple, with too few events or lacking the appropriate complexity to tap any existing linguistic deficits. The number of events in her retelling ranged from 50 to 86, whereas the retelling task in this study ranged from 498 to 521. The LILD subjects in this study reported less information that the non-LILD subjects. This supports Isaki and Plante (1997) study that suggests that language and/or learning disabled adults performed poorly on both short-term memory and working memory tasks. In addition, they interpreted their results as suggesting that language and/or learning disabled subjects have a general memory deficit, independent of modality (visual or auditory) and memory component (short term memory or working memory). They suggest that it is possible that both short-term memory and working memory abilities are relevant to the understanding of long-term language skill deficits of language and/or learning disabled adults, i.e. verbal memory difficulties may be a long term component of language and/or learning disability.

As mentioned above, the general trend was for the non-LILD subjects to use more orientation, and significantly more complicating action and evaluation. This indicates that even though the LILD subjects in this study *do* use orientation, complicating action, and

evaluation in their narratives, they provide less information than the non-LILD subjects within each of these elements of the story. These findings support Garrett's (1986) study, which found that students with learning disabilities tended to omit key information about settings (time, place, and characters). In addition, it supports Roth and Spekman's (1986) findings, as the LILD subjects in their study spent less time giving story context information than their normally achieving peers.

4.1.4 Evaluation

In addition to the basic narrative clause, evaluation is perhaps the most important aspect of a narrative (Labov, 1977). Labov described it succinctly by describing it as the narrative's 'raison d'etre' (Labov, 1977: 366), i.e. why the narrative was told, and what the narrator is getting at. When no evaluation is used, it may render the story pointless from the listener's point of view, and may leave the listener thinking; 'So what?' about the speaker's narrative. A good narrator is continually warding off this question (Labov, 1977). As mentioned above, non-LILD subjects in this study used significantly more evaluation. This supports Henshilwood's (1998) findings that the general trend was for the LILD subjects to use less evaluation than the control subjects. It is proposed that the non-LILD subject's were pragmatically more aware of keeping the listener's interest than the non-LILD subjects in this study by using more evaluative statements.

Both groups used all evaluative elements in their narratives, except for double attributives. However, Labov (1977) found that double attributives were relatively rare in colloquial style, and is associated with very complex syntax.

From the evaluative mean scores depicted in Table 3.2, it can be seen that both groups used quantifiers more than any other evaluative element. This supports Labov (1977) findings, which indicated that quantifiers are the most common means of intensifying a clause used by narrators of all age levels.

The non-LILD subjects used significantly more expressive phonology and repetition than the LILD subjects. The finding that LILD subjects use significantly fewer repetition

intensifiers than the non-LILD subjects supports Henshilwood (1998) who found a similar trend.

The results indicated that significant differences were not found between the two groups for negatives, futures, and modals. However, the LILD subjects used significantly less questions, quasimodals and or-clauses. This may be explained by the fact that these measures are syntactically more complex (Labov, 1977) than negatives, futures, and modals, and therefore used less frequently in the LILD narrative productions. On the other hand, the LILD subjects used significantly more progressives than the non-LILD subjects. Despite, comparatives having the highest level of syntactic complexity of all the comparators, both groups used this category and no significant differences were found between the two groups.

4.1.5 Cohesive Ties and Cohesive Adequacy

The mean cohesive adequacy scores depicted in Table 3.3 reveal that both groups used all cohesive ties. However, anaphoric reference, lexical ties, and conjunctions were the most used categories used by both groups. This finding supports Mentis and Prutting (1987) who found that referential and lexical types of cohesion were the most commonly used categories in normal narrative productions. The findings in this study also supports Henshilwood (1998) who found that both the LILD subjects and their normally developing controls used anaphoric reference and lexical ties the most. Similarly, research conducted by Rumble and Malan (1990) found that anaphoric reference and conjunctions were the most commonly used ties in their research.

The mean cohesive adequacy scores depicted in Table 3.3, also revealed that substitution was the least used cohesive category for both groups. This finding supports research documented by Rumble and Malan (1990) and Henshilwood (1998).

The multivariate test of significance reported in the results revealed that there were no significant differences between the two groups on demonstrative reference, anaphoric reference and lexical ties. These results contradict findings by Liles (1985) study on language-disordered children. Her study found that the normal subjects used a significantly

greater percentage of personal reference ties than the language-disordered subjects, whereas the language-disordered used a significantly greater percentage of demonstrative reference and lexical ties. The results from the present study suggest that LILD subjects are able to use devices that identify referent in narrative texts, which consist of a complex integration of ideas as ties accumulate, and chain throughout the narratives. Given that there were no significant differences between the two groups on lexical cohesion, it indicates that LILD young adolescents are able to create continuity of meaning in a narrative text either by reiteration or through the selection of words that fall into a particular semantic field. Because lexical cohesion signals continuity of meaning in a text, it provides a systematic measure of topic maintenance (Mentis & Prutting, 1987). The findings in this study show that the LILD young adolescents are able to maintain narrative topics.

The multivariate test of significance did however reveal that the LILD subjects used significantly less comparative reference than the non-LILD subjects. In addition, the univariate test of significance showed that the LILD subjects used significantly less complete comparative reference and complete conjunctives. This supports Garett's (1986) finding which suggests that the learning disabled subject's stories are less cohesive than subject's without leaning disabilities. Similarly, it supports Liles, Duffy, Merritt, and Purcell (1995) study, which found that the percent of complete cohesive ties is effective at differentiating language-disordered children from children without language disorder. Finally, it supports Liles (1987) study, as the children with normal language skills in her study used a higher frequency of complete conjunctives than the language-disordered children. However, it must be highlighted that the univariate test of significance showed that when LILD subjects used comparative reference and conjunctives, there was no significant difference between the two groups on accuracy, i.e. the LILD subjects did not use significantly more incomplete and erroneous comparative reference and conjunctions. This finding supports Ripich and Griffith's (1988) study on 9 to 12 year old children. They found that the number of cohesive devices increased and the tendency to use reference errors in cohesion decreased with age.

4.2 Task Effects

The use of multiple narrative discourse tasks has become a common practice for eliciting spoken language samples (Morris-Friehe and Sanger, 1992). Despite this, little consensus concerning the most appropriate procedures for collecting and analyzing narratives across populations exists (Cole et al., 1989; MacLachlan and Chapman, 1988; Merritt and Liles, 1989; Owens, 1991; Scott, 1988 in Morris-Friehe and Sanger, 1992).

The results of this study support the conclusion of previous research (Roth & Spekman, 1989) that story generation and story retelling are both effective measures of narrative ability, and that they both activate a cognitive organization consistent with story schema. In the present study both the non-LILD and LILD subjects produced story components representative of story grammar, regardless of whether a story model was provided. However, this study supports Merritt and Liles (1989) conclusion that story retelling is more clinically useful with older children for an assessment of narrative ability than story generation. The reasons proposed by the researcher for this are stated below.

Firstly, the results of this investigation indicated that the story retelling task prompted longer samples (i.e., more total number of words) from both the non-LILD and LILD subjects. This finding supports the findings of Merritt and Liles (1989), Morris-Friehe and Sanger (1992), and Strong & Shaver (1991). In addition, this study supports Iglesias, Guitierrez-Clellen and Marcano (1986) who found that movie themes tended to elicit longer and more elaborate narratives than personal narratives. Secondly, the retold narratives contained more events than the generation tasks. Merritt and Liles (1989) findings indicated that for clinical purposes, story retelling was more useful than narrative generation, as the stories contained more complete episodes and grammatical components for both the learning disabled and normal achieving subjects.

Thirdly, the story-retell task in this study yielded significantly more complete Comparative reference, complete conjunctives, and complete substitutions than the generation tasks. This supports Ripich and Griffith's (1988) finding that story retelling provides information regarding the more salient features of narrative such as cohesive devices.

It must be noted that there were more similarities between tasks for the dependent measure evaluation than differences. All three tasks elicited intensifiers, comparators, correlatives, and explicatives from both the LILD and non-LILD subjects. The only task differences were questions, imperatives, superlatives, and explicatives. The story retelling task yielded significantly more questions and imperatives than the generation tasks. In addition, the mean scores for evaluative elements depicted in Table 3.2, reveal that questions was not used at all by both groups of subjects for the narrative productions elicited from a picture task. This implies that if the examiner were interested in investigating LILD and normal-developing subjects' use of questions and imperatives, then the story retelling task would be a better task to administer than either a narrative from a picture or personal narrative, as it elicits more questions and imperatives. On the other hand, the personal narrative yielded more superlatives and explicatives.

4.3 Time-Of-Measurement Differences

One of the questions addressed in this research was whether there were statistically significant differences among the subjects' mean scores across the three measurement times, i.e. were the dependent variables' scores stable across time. A finding of no significant difference among the mean scores indicates stability for the distribution of scores. The degree of stability across testing sessions is a significant issue in the valid assessment of the oral cohesion of language-impaired and normal-language children (Strong & Shaver, 1991). In order for results to be interpreted with confidence, researchers have collected data across a number of different testing times spaced at brief intervals to determine whether the scores fluctuate greatly across testing sessions (Strong and Shaver, 1991; Morris-Friehe and Sanger, 1992).

As mentioned in Chapter 3, a Multiple Analysis of Variance (MANOVA) was used to examine the main and interaction effects for time. The results indicated that there were no main effects for total number of words, coherence, cohesive adequacy, and evaluation, except for ratio of total number of events to total number of words and the explicative evaluative element. These findings in general support Henshilwood's (1998) findings. This researcher found that scores for all evaluative elements did not fluctuate across the three testing sessions. In addition, her results indicated that the cohesive ties - Demonstrative Reference, Substitution, Conjunctives, and Lexical ties - were stable across the three testing sessions. However, her results indicated that anaphoric reference and ellipsis were unstable. Furthermore, the finding of stable *mean* cohesive adequacy scores across time of measurement, supports Strong & Shaver's (1991) findings. However, their study found that the correlational analysis across *individual* scores indicated moderate stability, and did not meet their research reliability criterion of 0.7. Stability was greater after children had experiences in telling stories.

This section presented the discussion of the analysis undertaken in this study. The results were related to past research. In the next and last section, a more general discussion will be undertaken and the implications of this study outlined.

5 GENERAL DISCUSSION, CONCLUSIONS AND IMPLICATIONS

5.1 General Discussion and Conclusions

This study examined and compared the narrative production abilities of LILD and non-LILD young adolescents on a number of measures: story length, amount of information, coherence, evaluation and cohesion. In addition, this study compared the performance of LILD and non-LILD subjects on three types of story elicitation tasks –story generation from a picture, story generation from personal experience, and story retelling. The task effects were examined given the current methodological concerns for eliciting language samples (Morris-Friehe and Sanger, 1992). Finally, this study investigated the stability of story length, story information, coherence, evaluation and cohesion scores over three measurement times. This information was essential if research findings were to be interpreted validly (Strong and Shaver, 1991).

One of the most important clinical findings in this study was that the LILD subjects were able to retell and generate narratives. This supports previous research, which has contended that LILD subjects are able to organize their stories according to a story grammar (Graybeal, 1981 in Ripich and Griffith, 1988; Henshilwood, 1998; Ripich and Griffith, 1989). This further supports other research, which has stated that learning-disabled children contain the basic ability to produce stories (Klecan-Aker and Kelty, 1990; Montague, Maddux, and Dereshiwsky, 1990; Morris-Friehe and Sanger, 1992; Roth and Spekman, 1986, 1989).

Although the language impaired learning disabled young adolescents performed similarly to the non-learning disabled young adolescents, the discourse analysis did however reveal group differences. The LILD young adolescents produced significantly shorter narratives, and provided less information than the non-LILD subjects in both the story retelling and story generation tasks. The LILD subjects tended to use more words per event when compared to the non-LILD subjects. Although the results indicated that the LILD subjects

had the *essential* elements in both story retelling and story generation, they used less orientation, and significantly less complicating action, and evaluation. The LILD subjects and non-LILD subjects performed similarly on their use of different types of evaluative elements. The only group differences found was that the non-LILD subjects produced significantly fewer questions and imperatives, but significantly more explicatives and superlatives than the non-LILD subjects. No significant differences were found between the LILD and non-LILD subjects on demonstrative reference, anaphoric reference and lexical ties. However, the LILD subjects used fewer complete comparators and complete conjunctions than the non-LILD subjects. The LILD subjects did not use significantly more erroneous and incomplete cohesive ties than the non-LILD subjects. A general trend emerged from this study that suggests that LILD young adolescents perform similarly to the non-LILD subjects, in that their stories are coherent, they use cohesive devises, and do not use significantly more incomplete or erroneous cohesive ties. However, because they provide less information, less evaluation, and less cohesion it renders their stories less coherent and cohesive than the non-LILD subjects.

The results of this investigation support the conclusion that story generation and story retelling are both effective measures of narrative ability and that they both activate a cognitive organization consistent with story schema. Both the LILD and non-LILD subjects produced story components representative of story grammar, regardless of whether the task was a narrative retelling or generation task. There were however, several distinctions between the tasks, contributing to the conclusion that story retelling is more clinically useful with language-impaired learning-disabled young adolescents for an assessment of narrative discourse ability than story generation. The retold stories were significantly longer, and contained more information than the generation tasks. The story retelling task highlighted the memory problems, which are often found in this LILD population. The evaluative elements questions and imperatives were also used more in the story-retelling task. Finally, the story retelling task yielded significantly more complete comparative reference, complete substitution, and complete conjunctives. On the other hand, the personal narrative task yielded more orientation, resolution, coda, and the evaluative elements superlatives and explicatives.

This study provides additional knowledge to the field of discourse productions in language impaired learning disabled young adolescents. The use of coherence and cohesion in the analysis of narrative discourse, proved invaluable in highlighting the subtle difficulties experienced by LILD young adolescents. In this study cohesive analysis, coherence, and evaluation, all served as potentially useful measures that are sensitive to discourse impairment that may not otherwise be identified or described except in an anecdotal manner. The use of three testing times and multiple tasks provided the examiner with a large language sample on which to analyse. The nature and complexity of the tasks used in this study were able to tap the less overt and subtler symptoms of the older LILD population. In addition, the materials used in this study were highly appropriate for this age group and culturally appropriate for this population. The materials elicited long stories from the subjects, and the subjects reported that they enjoyed the materials. This highlights the need to use age and culturally appropriate materials in research.

This study examined the narrative discourse characteristics within the LILD young adolescent population, while applying more stringent reliability measures. It has provided important information regarding the stability of length of story, story information, coherence, evaluation, and cohesive adequacy across time. The reliable findings in this study provided increased knowledge as to what constitutes normal and abnormal productions, and how deficits in discourse can be reliably assessed or measured. The results can be adopted with confidence as strict reliability measures were employed and good inter-rater and intra-rater reliability was found. Furthermore, the results indicated that 43 of the 45 dependent measures in this study remained stable across the three testing times. Theoretically and clinically, the finding that story length, story information, coherence, evaluation, and cohesive adequacy (except for the ratio of total number of events to total number of words, and explicatives) were stable across time, suggests that LILD young adolescents do not need to be tested over time to get a representative narrative discourse sample. However, younger children may need testing over three sessions to get a representative sample.

In this study, the examiner observed that both story retelling and generation help the speech-language therapist to describe patterns of language use in connected discourse.

However, there were several distinctions between the tasks, contributing to the conclusion that story retelling is more clinically useful with older children for an assessment of narrative discourse ability than story generation. As mentioned previously, discourse analysis takes into account the social and cognitive influences that bear upon language when used in communication (Smith and Leinonen, 1992). Therefore, the subtle difficulties exhibited by the LILD young adolescents in this study, suggest that both assessment and treatment of language impaired learning disabled young adolescents need to focus on discourse.

Although the examiner was interested in comparing the narrative discourse productions of LILD and non-LILD subjects, the study did not look at the variability within groups themselves. This led the examiner to overlook the individual variations within this study and thus, not taking into account the heterogeneity of both the LILD and non-LILD population. It must be noted that the results of this study need to be considered in the context of its small sample size. Further research is needed using a larger sample size to clarify the results found in this study.

5.2 Implications

Numerous clinical and future implications have emerged from this study. Clinically, it has implications for the assessment and management of language impaired learning disabled young adolescents. This study suggests that language impaired learning disabled young adolescents still exhibit language difficulties and require therapy. However, the assessment and management of these children should shift from language form to language use. This study provides guidelines for the assessment and management of these subjects.

A number of future research implications have emerged from this study. Firstly, given the paucity of research on the LILD young adolescent population's narrative discourse abilities, there is a need for replication and further research in this area. Replication is the most effective way to determine the reliability and generalisability of results (Shaver and Norton, 1980 in Strong and Shaver, 1991), and firmer studies are needed to establish a firmer basis

for the use and interpretation of coherence and cohesion. In particular there is a need to examine the continuum of language impairments in this population group. Language impairment in the learning disabled becomes increasingly subtle and harder to identify with age. Knowledge of the way that symptoms of language disability change over time provides a basis for evaluating available tests, assessment, and educational placement procedures (Wallach and Liebergott, 1984).

Secondly, it is important that empirical data concerning the use of language sampling elicitation and analysis procedures continue to be obtained in an effort to improve the efficacy of diagnostic efforts. Further research is needed to identify discourse tasks that would capture the subtle difficulties experienced by LILD young adolescents.

Thirdly, this study highlighted the need to continue to establish valid and reliable indices of measurement for narrative ability.

Other aspects, which could be considered for further examination is the LILD young adolescent's performance across different discourse forms, namely expository and conversational discourse. Comparisons across discourse forms would permit an examination of the actual relationship among various discourse tasks. In addition, further investigation is needed on the written narrative discourse abilities in the older LILD population group.

Finally, this study evolved from the investigator's desire to learn more about the continuum of language impairments in the language-impaired learning disabled population. It is hoped that this study will lead to further research in this area, in order to increase the speech-language therapists' ability to manage the communication difficulties in learning disabled young adolescents.

'As we learn more about "who these children are" and "how they develop," we may learn more about "how to get them out of trouble."

(Wallach and Liebergott, 1984: 13)

6 APPENDICES

List of Appendices

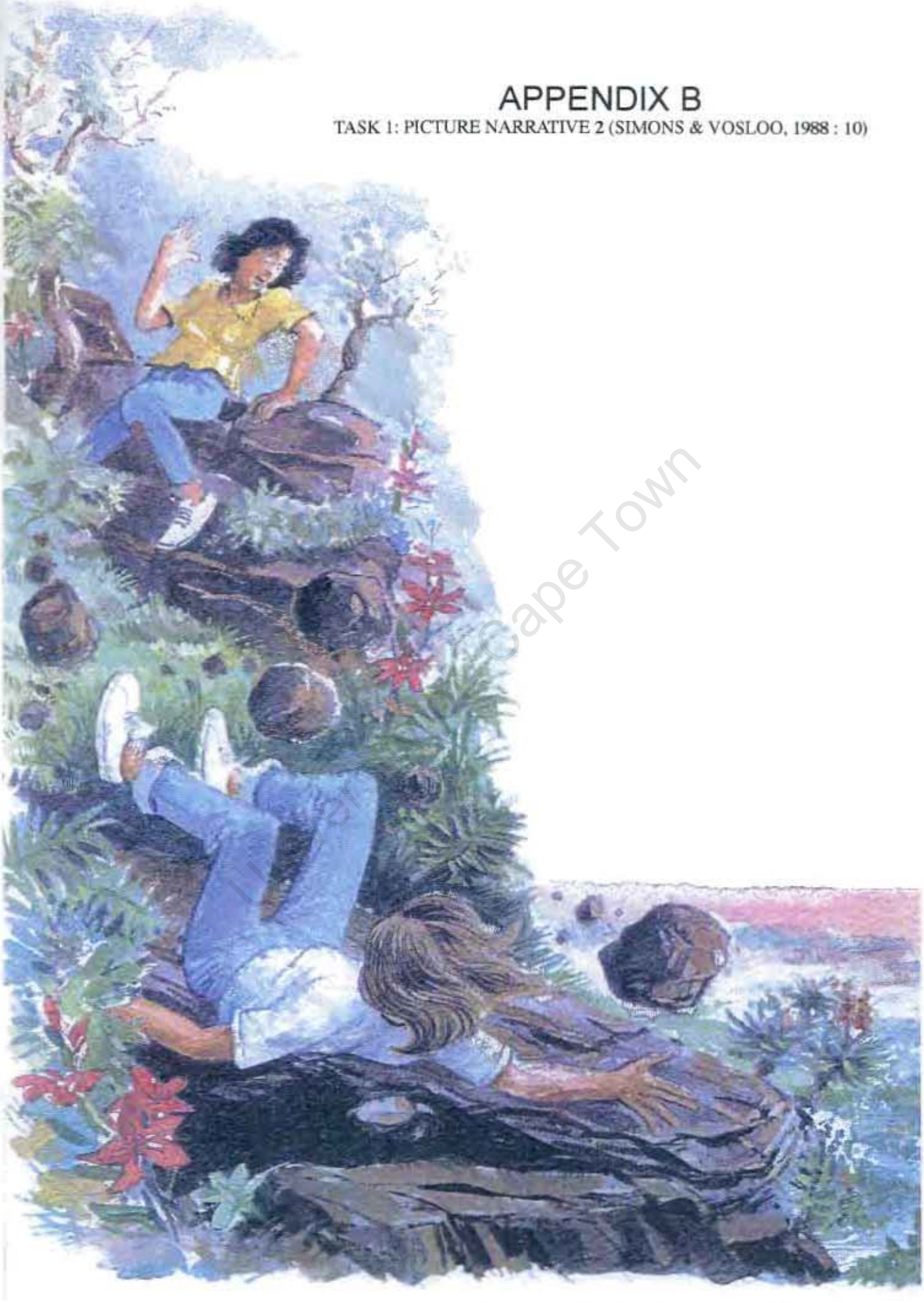
1. **Appendix A:** Task 1: Picture Narrative A1
2. **Appendix B:** Task 1: Picture Narrative A2
3. **Appendix C:** Task 1: Picture Narrative A3

APPENDIX A

TASK 1: PICTURE NARRATIVE 1 (SIMONS & VOSLOO, 1988 : 31)

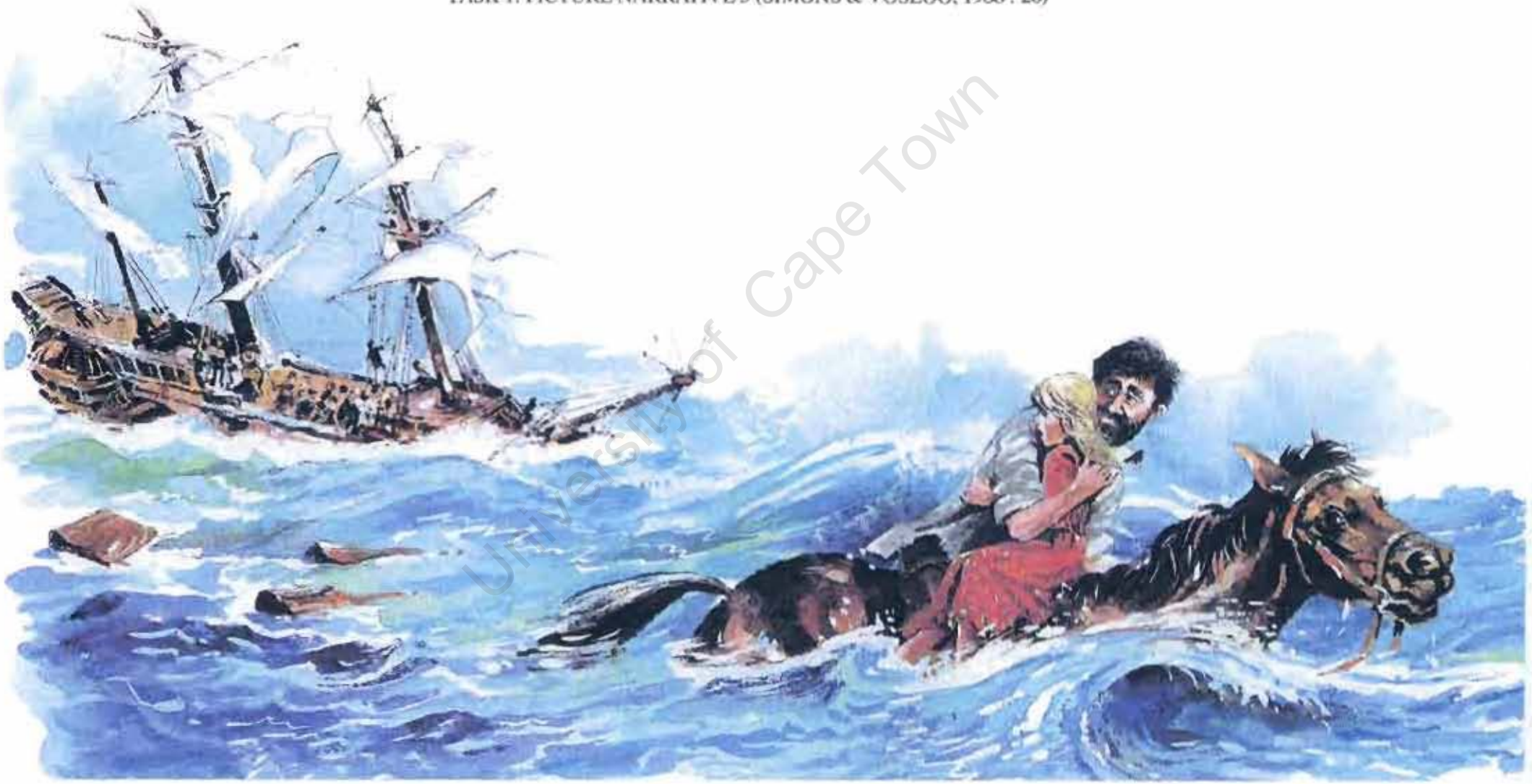
APPENDIX B

TASK 1: PICTURE NARRATIVE 2 (SIMONS & VOSLOO, 1988 : 10)



APPENDIX C

TASK 1: PICTURE NARRATIVE 3 (SIMONS & VOSLOO, 1988 : 26)



Cooper, J. (1985). Children with specific learning difficulties: the role of the speech therapist. In Snowling, M. (Ed.). *Children's Written Language Difficulties.* NFER-Nelson Publishing Company Ltd., Oxford.

Cucchiarini, C. (1995). Assessing transcription agreement: Methodological aspects. *Clinical Linguistics & Phonetics, March,* 130-153.

Dollaghin, C., Campbell, T., and Tomlin, R. (1990). Video narration as a language sampling context. *Journal of Speech and Hearing Disorders, 55,* 582-590.

Donahue, M. (1991). Communicative style in learning disabled children: some implications for classroom discourse. In Ripich, D. And Spinelli, F. (Eds.). *School Discourse Problems.* Singular Publishing Group, Inc., San Diego.

Feagans, L., and Applebaum, M. (1986). Validation of language subtypes in learning disabled children. *Journal of Educational Psychology, 78,* 358-364.

Feagans, L., and Short, E. (1984). Developmental differences in the comprehension and production of narratives by reading disabled and normally achieving children. *Child Development,* 55, 1727– 736.

Garrett, K. (1986). Telling tales: narrative and learning-disabled children. *Topics in Language Discourse, 6* (2), 44-56.

Glosser, G., and Deser, T. (1990). Patterns of discourse production among neurological patients with fluent language disorders. *Brain and Language, 40,* 67-88.

Graybeal, C. (1981). Memory for stories in language impaired children. *Applied Psycholinguistics, 2,* 269-283.

Griffith, P. L., Ripich, D.N., and Dastoli, S.L. (1986). Story structure, cohesion, and propositions in story recalls by learning-disabled and nondisabled children. *Journal of Psycholinguistic Research, 15,* 539 –555.

Groening, M. (1999). When you dish upon a star. *The Simpsons go to Hollywood.* 20th Century Fox Home Entertainment, Inc., USA.

Groening, M. (1999). *Call of the Simpsons* (vol 2). Century Fox Home Entertainment, Inc., USA.

Gutierrez-Clellen, V., and Iglesias, A. (1992). Causal coherence in the oral narratives of spanish-speaking children. *Journal of Speech and Hearing Research, 35,* 363-372.

Halliday, M., and Hasan, R. (1976). *Cohesion in English.* Longman Group Ltd., London.

Henshilwood, L. (1998). Narrative discourse productions in language impaired learning disabled persons: a descriptive study. Unpublished Bachelor of Science Degree Thesis, U.C.T., Cape Town.

Hux, K., Sanger, D., Reid, R., and Maschka, A. (1997). Discourse analysis procedures: reliability issues. *Journal of Communication Disorders, 30,* 133-150.

Isaki, E., and Plante, E. (1997). Short-term and working memory differences in language/learning disabled and normal adults. *Journal of Communication Disorders, 30,* 427-437.

Iglesias, A., Guitierrez-Clellen, V.F., and Marcano, M. (1986). *School discourse: Cultural variations.* Short course presented to the American Speech-Language-Hearing Association, Detroit.

Johnson, D., and Myklebust, H. (1967). *Learning Disabilities: Education Principles and Practices.* Grunne & Stratton, New York.

Johnston, J.R. (1982). Narratives: A new look at communication problems in older language-disordered children. *Language, Speech, and Hearing Services in Schools, 13,* 24-32.

Jordan, F.M., Murdoch, B.E., and Buttsworth, D.L. (1991). Closed-head-injured children's performance on narrative tasks. *Journal of Speech and Hearing Services in Schools, 14,* 144-155

Klecan-Aker, J., and Hendrick, D. (1985). A study of the syntactic language skills of normal school-aged children. *Language, Speech and Hearing Services in Schools, 16,* 187-198.

Klein, H. (1984). The assessment of some persisting language difficulties in the learning disabled. In Snowling, M. (Ed.). *Children's Written Language Difficulties.* NFER-Nelson Publishing Company Ltd., Oxford.

Krasny Meringoff, J.S. (1980). Influence of the medium on children's apprehension. *Journal of Educational Psychology, 72, (2),* 240-249.

Labov, W. (1977). *Language in the Inner City: Studies in the Black English Vernacular.* Basil Blackwell, Oxford.

Lahey, M. (1988). Cohesion in the narratives of normal and language-disordered children. *Journal of Speech and Hearing Research, 28,* 123-133.

Liles, B. (1985). Cohesion in the narratives of normal and language-disordered children. *Journal of Speech and Hearing Research, 28,* 123-133.

Liles, B. (1993). Narrative discourse in children with language disorders and children with normal language: a critical review of the literature. *Journal of Speech and Hearing Research, 36,* 868-882.

Liles, B., Coelho, C., Duffy, R., and Zalagens, M. (1989). Effects of elicitation procedures on the narratives of normal and closed head-injured adults. *Journal of Speech and Hearing Disorders, 54,* 356-366.

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

Maxwell, S., and Wallach, G.P. (1984). The language-learning disabilities connection: Symptoms of early language disability change over time. In Wallach, G. And Butler, K. (Eds.). *Language Learning Disabilities in School-Age Children.* Williams and Wilkins, Baltimore.

MacLachlan, B., and Chapman, R. (1987). Communication breakdowns in normal and language learning disabled children's conversation and narration. *Journal of Speech and Hearing Disorders, 53:* 2-7.

McNamee, G., and Harris-Schmidt, G. (1985). Narration and dramatization as abasis for remediation of language disorders. *Quarterly Newsletter of the Laboratory of Comparative Human Cognition, 7,* 6-15.

Mentis, M., and Prutting, C. (1987). Cohesion in the discourse of normal and head-injured adults. *Journal of Speech and Hearing Research, 30,* 88-98.

Merritt, D. And Liles, B. (1989). Narrative analysis: clinical applications of story generation and story retelling. *Journal of Speech and Hearing Disorders, 54,* 429-438.

Morris-Friehe, M., and Sanger, D. (1992). Language samples using three story eliciation tasks and maturation effects. *Journal of Communication Disorders, 25,* 107-124.

Nelson, N. (1993). Methods and targets of later stage intervention. *Childhood language disorders in context: infancy through adolescence.* Macmillan Publishing Company, U.S.A.

Nunnally, J.C. (1978). *Psychometric Theory* (2nd ed.). McGraw-Hill, New York.

Ogilvy, D. (1995). *Assessment of the Linguistic and Cognitive Abilities in the Learning Disabled Deaf Population.* Published Doctorate of Arts Thesis, University of the Witwatersrand, Johannesburg.

Owens, R.E., Jr., (1991). *Language Disorders: A functional approach to assessment and intervention.* New York: MacMillan.

Paul, R., and Smith, R. (1993). Narrative skills in 4-year-olds with normal, impaired and late-developing language. *Journal of Speech and Hearing Research, 36,* 592-598.

Purcell, S., and Liles, B. (1992). Cohesion repairs in the narratives of normal-language and language-disordered school-age children. *Journal of Speech and Hearing Research, 35,* 354-362.

Ripich, D. and Griffith, P. (1988). Narrative abilities of children with learning disabilities and non-disabled children: story structure, cohesion and propositions. *Journal of Learning Disabilities, 21 (3),* 165-173.

Roth, F., and Spekman, N. (1986). Narrative discourse: spontaneously generated stories of learning-disabled and normally achieving students. *Journal of Speech and Hearing Disorders, 51,* 8-23.

Rumble, S. and Malan, K. (1990). The development of a framework for assessing developing conversational skills. *The South African Journal of Communication Disorders, 37,* 21-26.

Scott, C. (1988). A perspective on the evaluation of school children's narratives. *Language, Speech and Hearing Services in Schools, 19,* 51-66.

7 REFERENCES

Atkins, P., and Cartwright, L. (1982). An investigation of the effectiveness of three language elicitation procedures on head start children. *Language Speech and Hearing Services in Schools, 13,* 33-36.

Bagett, P. (1979). Structurally equivalent stories in movie and text and the effect of the medium on recall. *Journal of Verbal Learning and Verbal Behaviour, 18,* 333-356.

Berman, R., and Slobin, D. (1994). *Relating events in narrative: a crosslinguistic developmental study.* Laurance Erlbaum, New York.

Bishop, D.V.M., and Edmundson, A., (1987). Language impaired four year olds: Distinguishing transient from persistent impairment. *Journal of Speech and Hearing Disorders, 52,* 156-173.

Blalock, J.W. (1982). Persistent auditory language deficits in adults with learning disabilities. *Journal of Learning Disabilities, 15,* 604-609.

Caro, D., and Schneider, P. (1983). Creating referents in text: A comparison of learning disabled and normal adolescents' texts. *Proceedings of the Wisconsin Symposium for Research in Child Language Disorders.* Madison: University of Winsconsin.

Coggins, T., Friet, T., and Morgan, T. (1998). Analysing narrative productions in older school-age children and adolescents with fetal alcohol syndrome: an experimental tool for clinical explanations. *Clinical Linguistics and Phonetics, 12,* 221-226

Cole, K., Mills, P., and Dale, P. (1989). Examination of test-retest and split-half reliability measures derived from language samples of young handicapped children. *Language, Speech and Hearing Services in Schools, 20,* 259-268.

Weaver, P.A., and Dickinson, D.K. (1979). Story comprehension and recall in dyslexic students. *Bulletin of the Orton Society, 29,* 157-171.

Westby, C. (1984). Development of narrative language abilities. In Wallach, G. And Butler, K. (Eds.). *Language Learning Disabilities in School-Age Children.* Williams and Wilkins, U.S.A.

Wiig, E., and Semel, E. (1984). Memory – retention and retrieval: remembering spoken messages (characteristics and assessment. *Language Assessment and Intervention for the Learning Disabled.* (2nd ed.). Charles E. Merrill Publishing Company, New York.