AN INVESTIGATION OF PRAGMATIC COMPETENCE AND PERFORMANCE IN THE LANGUAGE-IMPAIRED LEARNING DISABLED PRE-EARLY ADOLESCENT POPULATION

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Humans are Essentially Social Beings

'Smile and the World Smiles Back'

(Zimbardo, 1992)

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ABSTRACT

This study attempted to document language-impaired learning disabled (LILD) pre-early adolescents' pragmatic behaviour. In order to obtain a comprehensive view of LILD pre-early adolescents knowledge of pragmatic rules, as well as their application of these rules both a standardised test (Test of Pragmatic Language-TOPL) and a profile (Adapted Profile of Communicative Appropriateness – APCA) were used. The study comprised of 14 LILD and 14 non-LILD pre-early adolescents between the ages of 11 and 14 years. The standardised test was administered individually to each subject. Thereafter the conversational discourse of the subjects was videotaped in two familiar settings. The first was a 30-minute formal class lesson with an adult facilitator present. The second, a 30-minute informal discussion group with four or five peers. Three raters then rated the subjects according to the APCA across both these contexts. The results obtained from this study revealed differences in performance between the LILD and non-LILD groups. The LILD group showed poorer performance in the majority of aspects on both the TOPL and APCA, indicating deficits in pragmatic behaviour. The main findings of this study indicated that the LILD pre-early adolescents possessed some knowledge regarding pragmatic rules, but were unable to apply them in a natural context. Another major finding of this study revealed the positive influence of a formal context in LILD pre-early adolescents' pragmatic behaviours. Numerous theoretical, clinical and future implications emerged from this study.

KEY WORDS: pragmatics, pragmatic performance, pragmatic competence, language-impaired, learning disabled, pre-early adolescents, assessment of pragmatics, contexts

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1. INTRODUCTION

There has been a noticeable shift in the field of communication and linguistics. Whereas the previous focus was primarily on the form and structure of language, more recently the use of language, commonly known as *pragmatics* has received much attention. The interest in pragmatics evolved through the realization that semantic and structural analyses of language did not provide an adequate and complete account of language and its development (Chiat, Law, Marshall, 1997).

McTear and Conti-Ramsden (1989) state that the use of language involves three aspects of language: 1) the study of discourse and conversational skills, 2) the study of the relationship between pragmatics and other levels of language, and 3) the study of situational determinants of language. In essence pragmatics has become a much-debated issue as a "complete account" of language analysis would include the knowledge that language is a social event carried out by human beings in realistic communicative contexts (Carrow-Woolfolk, 1988).

Over the past two decades the arousal of interest in the pragmatic sphere of communication has resulted in much research being conducted in the field of pragmatics in populations with communicative deficits such as those persons with aphasia, and in the child population presenting with pervasive developmental disorders. However to date, relatively little research has focused on pragmatics within the language-impaired learning disabled population (LILD), although acknowledgement of the change in language impairment over time to include pragmatic deficits in older children has been made (Crais and Chapman, 1987, Purcell and Liles, 1992). In addition, current clinical practice rarely addresses the area of pragmatics in the assessment and intervention of the language-impaired learning disabled population. Hence the fairly limited past research and the need to address pragmatics on a clinical level within the language-impaired learning disabled pre-early adolescent population provided the motivation for this study.

1.1 Pragmatic Competence and Performance

Prutting (1982) defines pragmatic *competence* as 'knowledge of the rules' and compares this to *performance*, which is ' use of the rules.' Although researchers have tried to relate knowledge and use of language in the past, it is only recently that pragmatics as an entity has been accepted as being necessary in order to completely and accurately understand the entire communicative system. Prutting (1982) summarises this system according to three components, which provide an interactive framework in order for *communication* to occur. Firstly a presupposition about the social and cognitive knowledge of the world, secondly the linguistic rules (phonological, syntactic, and semantic), and finally the

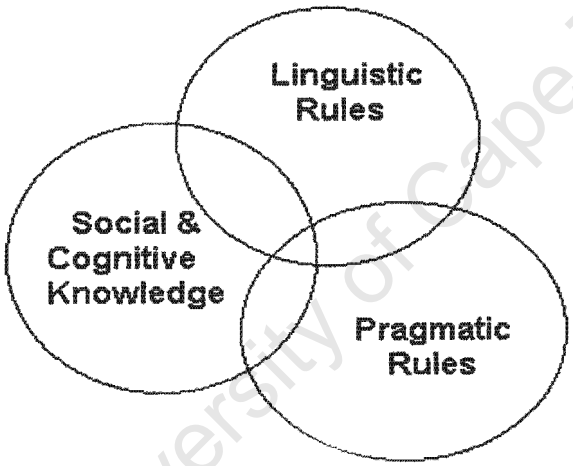


Figure 1.1 Triad of Discourse Rules

pragmatic rules (both linguistic and non-linguistic knowledge). The combined interaction of these three aspects is thought by Prutting (1982) to be the basis for communicative events to occur between a minimum of two individuals in order to achieve communicative and social competence.

The earliest definition of pragmatics by Bates (1977) in McTear and Conti-Ramsden (1989) is "the ***study of the rules governing the use of language in a social context.***" Unfortunately, not all researchers and theorists agree as to the areas of study subsumed under the term "pragmatics, " with some preferring all-inclusive broad definitions whilst other have a narrower definition (Ball, 1992; Craig, 1993). There is particular difficulty in determining whether a given instance of the inappropriate use of language in context can be determined as pragmatic if one adopts what is generally referred to as the "narrow" view of pragmatics (McTear & Conti-Ramsden, 1989; Prutting and Kirchener, 1987).

The narrow view stipulates that pragmatic skills are a distinct component of language separate from form and structure Therefore a breakdown in communication will take place either at a pragmatic level, or at one of a number of other separate levels, namely phonological, syntactical and semantic.

Conversely, the broad view of pragmatics emphasises the way in which pragmatic considerations may be incorporated into other levels of language. An example would be the development and appropriate use of syntactic devices such as relative clauses, which would indicate an awareness of their communicative function. Seen in this light a breakdown in communication is pragmatic in nature if it is the result of the speaker's inability to grasp the communicative function of a specific linguistic feature. McTear (1985) argues that in the broad view, pragmatics is not equated to a distinct level of language but invades language at all levels. However the broad and narrow view of pragmatics mirror each other in that they are both based on the notion that pragmatics are a specific set of abilities that are distinct from abilities at other levels of language.

In order to understand the terminology of pragmatics, it is necessary to determine exactly what *pragmatic competence* and *performance* includes. According to Prutting, (1982) pragmatic *competence* depends on social knowledge and skill as well as linguistic knowledge and skill. *Performance* therefore relates to being able to use language appropriately within a social context and realising that one changes one's speech

depending on the relative status of the communicative partner. Additionally, one should be able to take the communicative partner's perspective, in order to judge the information that is shared as well as determine what information has yet to be conveyed (Lapadat, 1991). Therefore a language user who displays pragmatic competence and performance knows the rules governing social interaction as well as when to apply them and how to vary the communicative style and content according to changes in the social environment over time.

Prutting and Kirchener (1987) add, that as well as understanding social interaction rules, one must have a sufficiently large vocabulary which must be applied appropriately in order to convey information in a way that is meaningful to the particular listener within the specific context. Wiig & Semel (1984) describe pragmatics as a process of sharing intents. The process can take place in a variety of settings and contexts involving two people, a small group or a large audience. The sharing of communication can involve intimate forms as well as highly formal norms in a face-to-face situation or alternatively over extremely long distances.

Penn (1999) summarises pragmatic competence and performance as " a number of inter-related skills which manifest in real-time in a range of adaptive behaviors and which are driven by underlying cognitive processes." Therefore the development of such complex skills is important in children in order for them to function as socially competent adults.

We learn the rules and strategies involved in social communication incidentally through random learning when they prove effective in "getting what we want." Other rules and strategies may have been acquired by observing other people and analysing their behaviour. Some rules have been taught over time by siblings, peers, parents, teachers and other adults. Most social interaction is achieved through the use of language, and normal pragmatic development in children is learnt and developed through a variety of the strategies mentioned above.

Patterns in the acquisition of functions of communication are outlined by Wiig & Semel (1984) in Table 1.1.

Table 1.1 Patterns in the Acquisition of Functions of Communication

INFORMING	CONTROLLING	FEELING
Describing Ability to use referential statements that are specific and adapted to listener needs improves from Pre-primary to Gr.9. Although children in the 9th grade do not perform up to adult standards.	**Directives** Controlling by use of directives progresses from • Direct requests (Give me…: Get….) • Indirect requests (Can I have / take) Polite requests (Please can I), indirect negative requests (Can't you) • State-of-Affairs requests (Must you…) • Pretend directives (pretend you're…tell me…) • Subtle directives (Just give me…and I'll…)	**Disputing** 3rd and 4th graders rely on threats, bribes, insults and praise in settling disputes. They repeat feelings or self-beliefs, escalate the imaginative component (tear eyes out), or inverse the statement pattern (no, I'm not…)
Asking Question-asking behaviours proceed from *Yes/ No* to *wh*-questions in order from what, where, why, how, when. *Wh*-questions are interpreted on the basis of verb meaning by pre-schoolers.	**Politeness Forms** The judgment of relative degrees of politeness of requests as well as the expression of directives, with increasing politeness features increases from age 3-7. Performances at age 7 do not usually differ from adults. Both judgments as well as expressions of polite forms relate positively to perspective taking for preferences.	**Action Disagreement** 7 – 8 year olds ask others to stop certain actions if they disagree (Don't erase/ tear out….) 9 – 10 year olds state their reasons for disagreeing (Don't erase / tear out because…. I liked the drawing…) 11 – 13 year olds provide reasons that involve the other's perspective (Your husband will like the drawing / the teacher will think it's great)

Children with ***language disorders*** and ***learning disabilities*** on the other hand may not be as equally responsive to all of these processes. Therefore problems of language use are sure to surface under the high demands of the classroom context and may undermine active learning.

Recently theorists have begun to suggest that the strategies employed by **language-impaired learning disabled** children in attempts to compensate for their language difficulties may also yield language patterns that present as pragmatic deficits (Lapadat, 1991; Wallach & Liebergot, 1984; Bryan, Pearl, Donahue & Pflaum, 1983). Crais and Chapman (1987) agree with these stipulations based on the significant proportion of learning disabled children who are language-impaired. McKiney (1984) supports this statement further by adding that although the learning disabled (LD) population is a heterogeneous one with several subgroups, the language-impaired subgroup is the largest. Young children often identified as having language delays are often later classified as LD (Crais and Chapman, 1987).

1.2 Pragmatics in the Language-Impaired Learning Disabled Population

In querying whether children identified as learning disabled (LD) present with pragmatic deficits, the issue of definition of terms arises. The diagnostic labels *learning disabled* and *language disordered* are often used interchangeably. Yet despite more than 25 years of discussion regarding the debate over terms and inclusiveness the LD field continues to want for an operational definition. Most current definitions focus on school-based criteria and this does not allow for generalisation into the adult population (Brinckerhoff, Shaw & Mcguire, 1983). Hanmill (1990) noted that there are currently 11 different conceptual definitions of LD in use and these identify five common elements: task failure, achievement-potential discrepancy, etiological factors, exclusionary factors and dysfunctions in one or more psychological processes.

An emerging joint consensus of support for the National Joint Committee on Learning Disabilities (NJCLD) definition, is as follows:

Learning disabilities is a definition that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning and mathematical abilities. These disorders are intrinsic to the individual and presumed to be due to central nervous system dysfunction. Problems in self-regulatory behaviours, social perception and social interactions may exist with learning disabilities but do not by themselves constitute a learning disability. Even though a learning disability may occur concomitantly with other handicapping conditions (e.g. sensory impairment, mental retardation, social and emotional disturbance) or environmental influences (e.g. cultural differences, insufficient/inappropriate instruction, psychogenic factors), it is not the result of those conditions or influences. (National Joint Committee on Learning Disabilities, 1994, pp65-66)

The NJCLD definition was chosen for the following reasons:

- ✓ It is the most descriptive definition of LD;
- ✓ It is in line with the concept of intra-individual differences across areas;
- ✓ It specifies that learning disabilities exist throughout the lifespan;
- ✓ It deals with LD as the primary condition, while acknowledging possible concomitant disabling conditions;
- ✓ It does not rule out the possibility that learning disabilities can occur in people who are gifted and talented; and
- ✓ It has support from a broad range of professional constituencies (Hanmill, 1993; Doris, 1993; Brinckerhoff et al, 1995).

Due to the interest in the field of pragmatics current discussion has emerged concerning the status of social skills deficit (which encompasses pragmatics) as part of learning disabilities (Conte & Andrews, 1993). This issue has been fueled by the Interagency

Committee on Learning Disabilities (ICLD, 1988) which recommend that social skills deficits should be encompassed within the LD definitions.

Gresham and Elliot (1989) subsequently rejected this proposal on the grounds that social skills deficit is not consistent with established characteristics of learning disabilities. Their argument was that for social skills deficit to be considered a learning disability, it must meet the requirements of the "Primary Cause Hypothesis (PCH)." Hazel and Schumaker, (1988) assert that in terms of the Primary Cause Hypothesis there must be compelling evidence that social skills deficits arise from the same type of neurologic dysfunctions that are responsible for academic problems. Due to the lack of evidence of neurologic dysfunction they suggest that pragmatic disability does not satisfy the requirements of the Primary Cause Hypothesis. Finally they suggest that the PCH is implausible in LD because approximately 16% of children with LD are as socially skilled as their peers, but no statistical source for this percentage is given. This percentage once again gives credence to the heterogeneity within the learning disabled population (Shaw, Cullen, McGuire, Brinckerhoff, 1995). Therefore the researcher argues that the PCH cannot be ruled out with regard to including pragmatics within the field of LD.

In response to the PCH Gresham and Elliot (1989) proposed the "Social Learning Theory Hypothesis (SLTH)," where pragmatic disability stems from the lack of opportunities to either acquire or perform social behaviours. Basically they imply that the deficits associated with LD prevent children from acquiring and or performing social behaviours. Gresham and Elliot's (1989) argument is that the SLTH deals with social skills on its own terms without making reference to questionable causes such as central nervous system dysfunction or academic difficulties.

Conte and Andrews (1993) state that both the Primary Cause Hypothesis and the Social Learning Theory are different in that each of them specifies a different type of relationship between the mechanism underlying learning disabilities and social skills. Whereas the PCH suggests a close functional relationship between these mechanisms, the

SLTH proposes an indirect relationship. Basically, the researcher interprets these hypotheses as being part of a foregoing "nature (PCH) versus nature (SLTH)" debate.

In view of these relationships between LD and the hypotheses discussed, Conte and Andrews (1993) conclude that social skills deficit do fall within the scope of current LD definitions. However, the general absence of limiting conditions makes it extremely difficult to exclude any population type of disability on the basis of existing definitions.

Therefore Conte and Andrews (1993) propose a limiting condition to the definition that would restrict the term learning disability to those functions and/or content areas that require intentional learning for mastery to occur. Due to this limitation social skills deficit might not fall within the bounds of LD, as most individuals seem to acquire language and social skills without the formal instruction processes that characterise intentional learning.

However, Kronick (1993) suggests that there is a fear of including pragmatic deficits in the LD definition, as schools would then have to provide formal remediation in these spheres.

Previously there has been much experimentation with various study programs and learning techniques within the LD population that has proved that this group can learn to deal with their difficulties (NJCLD, 1994). However there is concern that although areas of difficulty which are more noticeable such as reading, are immediately addressed and managed, the area of pragmatics which may be of a more subtle nature is often neglected. In a younger child pragmatic disability is often not noticed as it can be attributed to age, therefore allowing the LD child to continue deficient pragmatic behaviour into adolescence and adulthood. (Lapadat, 1991; Wallach & Liebergot, 1984; Bryan, Pearl, Donahue & Pflaum, 1983).

Wiig & Semel (1984) agree that subtle language deficits present in the learning disabled child may persist into adolescence and even adulthood if the child does not receive proper intervention. They add that these difficulties may only emerge when the individual is

exposed to new life-changing circumstances such as changing jobs or moving to a new area where different and unexpected demands are placed on the processing of language for both written and spoken forms.

Wallach & Libergott (1984) summarise the various ways in which the symptoms of language-impairment and learning disability change over time:

- Language problems may become evident in reading and spelling turning "spoken" language problems into "written" language problems
- Overt symptoms frequently seen in younger children with language disorders such as reduced mean length of utterance, limited vocabulary, etc. may become more subtle and show up as inferential processing problems, word-finding difficulties, pragmatic deficits, etc.

The results of previous studies indicate that adolescents also change their communication strategies over time (Wiig and Semel, 1984, Nippold, 1988, Lees and Urwin, 1997). Nippold (1988) states that 'significant growth occurs in language development during the 9-19 year age range,' contrary to previous views that language development was a phenomenon of the first decade of life. While it is clear that the major hurdles of the early years have been overcome by the teenage years, the refining of the language system to cope with the increasingly complex demands of adult-style usage continues. The implications of this 'fine-tuning' for the LILD adolescent are rarely discussed and therefore clinicians display a reluctance to remediate language disorders within this population (Lees and Urwin, 1997). However bearing in mind the need for 'earlier' intervention the researcher proposes that the transition period of language development in the pre-early adolescent years be further explored. This belief is in light of Wiig and Semel's (1984) statement that language is affected by major life changing circumstances.

Larson and McKinley (1998) believe that sufficient knowledge on *normal adolescent* conversations is needed in order for professionals to understand what constitutes abnormal pragmatics. They propose that adolescent language be analysed similarly to an adults use of language using three levels: a) the macrolevel of conversational frameworks

e.g. describing an event, problem solving etc., b) the microlevel of linguistic features including negation, mazes, vocalised pauses etc. and c) a midlevel that examines pragmatic behaviors such as direction and manner of topic shifts etc. Larson and McKinley (1998) therefore carried out a longitudinal study on normal adolescent language using these three levels of analysis. The study was carried out over a period of time beginning when the children were just entering adolescence i.e. 12 / 13 years to their final years of school i.e. 17 / 18 years.

Their findings which related specifically to the pragmatic aspects of adolescent conversation revealed that adolescents interacting with a peer were more likely to use a variety of question types, more frequent figurative language expressions and new and abrupt topic shifts. However the younger adolescents showed greater frequency of topic shift initiation and the manner of topic shifts became less abrupt as the children grew older, indicating change over time. Gender-related differences revealed that males used returns to topics more frequently and the functions of getting the listener to feel/believe/do something as well as entertaining more frequently than females. The relative lack of gender differences was noteworthy regarding giving information, getting information, describing an ongoing event, describing one's feelings or beliefs, indicating readiness for further conversation and problem solving. With respect to inter-grade differences patterns were either more or less consistent across grades regarding negative interruptions and topic shifts. For other behaviours such as non-specific language and verbal mazes an equal frequency was reported in the earlier and later grades, with a significant shift during one or more middle grades and finally a relatively flat pattern occurred across grades regarding giving and getting information.

Wiig (1982) reported that by age 13, adolescents make the formal transition between the informal language code appropriate to use with peers and the formal language code appropriate to use with adults. Additionally Wiig (1982) determined that by the age of 15 teenagers use the formal register not only with adults but also with peers that are not directly part of their close group of friends.

In comparison to normal adolescents Holland (1984) suggests that just as language-impaired learning-disabled children experience difficulty with the *structural* aspects of language, they often find it difficult to handle the *functional* or pragmatic aspects of language. Initial research within the field of LD reported mainly on variables such as achievement level and IQ as they are considered to be the most defining characteristics of individuals with learning disabilities (Durrant, 1994). Current research with regard to LD communication skills has concentrated mainly on narrative discourse analysis (Roth and Spekman, 1984; Schoenbrodt, Kumin, Sloan, 1997). Recently several researchers have begun to document and describe the conversational skills of non-disabled adolescents in order to determine their communicative maturity (McKinley and Larson, 1983, 1991; Larson and McKinley, 1988; Nippold, 1988; Hoskins, 1990; Norris, 1995). Most previous research comparing LD individuals to their normally achieving peers used tasks requiring the individual to make decisions related mainly to social judgement (Lapadat, 1991). A recent study by Rinaldi (2000) using idioms and multiple meaning phrases illustrated the pragmatic comprehension of LILD adolescents. However Durrant (1994) warns that the use of mainly quantitative parameters in LD research is not consistent and valid and future research should focus on qualitative and descriptive methods of study.

Silver (2001) who observed the quality of non-verbal behaviours between LILD and non-LILD 9-10 year old children found differences in social perception. Lapadat (1991) who reviewed various studies of pragmatics in the field of learning disabilities found consistent and pervasive pragmatic deficits in conversational competence. However these studies were mostly carried out on subjects younger than twelve years of age.

Donohue, Bryan and Pearl (1980) and Holland (1984) noted that language disordered LD children have difficulty processing and producing the pragmatic aspects of discourse. In addition Donohue et al (1980) found that aspects of both conversational and narrative discourse was not as complete or as organised as their same age peers. They observed that the LD group was more passive and agreeable as conversational partners and therefore could not always control the flow of conversation even when it was their

responsibility. Donohue et al (1980) conclude that LD children fail to understand their roles as conversational partners.

A more general summary of the characteristics of *adolescent language disordered learning disabled* children provided by Dewart and Summers (1995) is as follows:

1. Failure to understand or pay attention to rules of conversation, e.g. turn-taking, introducing topics of conversation and staying on the topic.
2. Difficulty using different language for different needs of the listener or situation
3. Incorrect use of grammar
4. Poor or limited vocabulary
5. Difficulty requesting further information to aid understanding
6. Tendency to ask questions that are too general e.g. "Are you going out tonight?" when what is really meant is, "Where are you going tonight?"
7. Tendency to agree rather than voice an opinion
8. Indirect requests and ambiguous statements
9. Class clown behaviour
10. Extreme forgetfulness
11. Withdrawal or exclusion from group activities
12. Difficulty with *understanding non-verbal behaviours such as body language, *finding words, * puns, idioms, riddles, jokes, sarcasm and slang, * instructions, especially those that are long or grammatically complex, * words with multiple meanings (bear vs. bare), * sequencing, * expressing thoughts, * organizing information.

1.3 Assessment of Pragmatics

Chalfant (1989) strongly advocates that the array of tests used in assessing learning disabled individuals is often due to the disagreement among professionals as to what domains should be evaluated and differences in approaches to intervention. Standardised test results by Speech-Language Pathologists, Psychologists and Education Departments

are used to describe language skills in adolescents in the areas of syntax, grammar, and auditory memory (Prather in Holland, 1984). However in other areas of language, specifically ***pragmatics and the social use of language***, no normative research data is available across the adolescent years, especially in the LD population.

Although the need for documentation of pragmatics within the LD population is now being acknowledged, assessment measures used need to be credible with respect to the reliability and face validity of a test (Doris, 1993). The assessment of pragmatic disability and the need to determine the most appropriate method of assessment of pragmatic disability still results in much controversy. Current controversy focuses on standardised tests, and pragmatic profiles (McTear & Conti-Ramsden, 1989, Penn, 1999).

1.3.1 Standardised Tests

Until recently standardised testing focused mainly on the more traditional areas of phonology, syntax and semantics. Tests in the area of pragmatics were developed in order to quantify social skills disability as well as to aid clinicians in diagnoses. Standardised testing focuses on creating a context in which the child must respond according to a predetermined set of socially appropriate norms. However due to the nature of pragmatics and its dependence on both conversational partner and context, it has been argued that it is difficult to predict a true range of appropriate responses (McTear & Conti-Ramsden, 1989). Therefore the scoring of such a test is carried out at the discretion of the tester which in turn leads to the dilemma of allowing the clinician too much freedom in scoring and analysis (McTear, 1985). Finally researchers argue that while the standardised test has the advantage of being quick, easy to administer and can be standardised across a large sample to provide norm references, the final score is not a true reflection of the child's capabilities (McTear & Conti-Ramsden, 1989, McTear, 1985).

1.3.2 Profiles / Rating Scales

Profiles on the other hand serve to highlight pragmatic areas, which arise in everyday conversational interactions. The clinician is required to note the absence or presence of certain behaviours as well as their appropriacy during a particular interaction. According to McTear et al. (1989) the main strength of the profile is that it allows a detailed, yet efficient way of focusing on the key areas of disordered pragmatic ability while incorporating both verbal with paralinguistic and non-verbal behaviours. However Roth and Spekman (1984) criticise this framework for not having a discrete set of guidelines regarding interpretation of results, as well as not being organised adequately in terms of specific, non-overlapping categories. Finally Prutting and Kirchener (1987) put forth the issue of clinician judgments regarding appropriacy and scoring as profiles rely heavily on the testers intuition.

1.3.3 The Use of Multiple Assessment Tools

Both standardised tests as well as profiles each have their strengths and weaknesses when evaluating pragmatic ability or disability. Blank and Franklin (1980) in McTear and Conti-Ramsden (1989) identify three main areas related to the issue of pragmatic assessment. The first of these areas relates to the issue of complexity. They argue that simply labeling items in terms of their illocutionary functions does not provide insight into the complexity of the communicational function. In keeping with this dimension of complexity, McTear and Conti-Ramsden (1992) call for the need to incorporate a broader view of pragmatics interspersed with the traditionally studied areas of language such as semantics and syntax. Finally, there is the much-debated concern that pragmatic assessments are generalised from studies of normally developing children and therefore are not representative of the language-impaired population.

According to Penn (1999) basic principles for pragmatic evaluation should include:

- ✓ Evaluation within a social and interactional context,

- ✓ Multidimensional assessment that characterizes not only language behaviours but includes aspects such as the cognitive processes underlying language e.g. attention,

- ✓ Observation of the child's adaptation behaviours and evaluation of the efficiency of these behaviors (e.g. adequacy, timeliness; Wilcox, 1983), and finally

- ✓ Examination of the effect the pragmatic disorder has on the life of the child and those in the child's immediate environment.

In summary, from a review of the literature, there is a dire need for further investigation in the field of pragmatics particularly within the language-impaired learning disabled population.

This study aimed to examine and document the pragmatic behaviours of the pre-early adolescent language-impaired learning disabled population. More specifically it aimed to investigate this population's pragmatic competence using a standardised test, and pragmatic performance in formal and informal contexts using a pragmatic profile.

In this study, the researcher was motivated by some recent conceptual shifts which have occurred in the field of pragmatics. Firstly, this included the need to investigate pragmatics within a social and interactional setting and across more than one context. Secondly, the need to use a multidimensional assessment method was acknowledged. By employing a standardised test and a pragmatic profile, hopefully the complexity of communicational functions will be realised and a broader view of pragmatics will be embraced.

The scope of this study involves both applied and theoretical aspects. Hopefully the findings of this study and the assessment tools employed may have assessment and remedial implications for the language-impaired learning disabled population. Only once deficits in pragmatic competence and performance have been identified can programmes of remediation be planned and implemented.

Numerous theoretical implications may evolve from this study. Apart from providing fairly detailed descriptions of pragmatic behaviours of language-impaired learning disabled pre-early adolescents, hopefully it will highlight the difference between pragmatic competence and pragmatic performance and indicate how pragmatic performance is influenced by context.

2. METHODOLOGY

This section presents the aims, research design, subject selection criteria and a description of the subjects used in the study. In addition the tools of assessment used in this study are described. Methods of data collection and methods of scoring and analysis are also discussed.

2.1 AIMS:

The main aim of this study was

1. To examine and document the pragmatic behaviours of the pre-early adolescent language- impaired learning disabled population.

More specifically to investigate pragmatic competence using:

- a standardized test of pragmatic language, and
- a pragmatic profile administered across a formal and informal context.

2.2 SUBJECTS

2.2.1 Sample Size

Previous research within the learning disabled population calls for sample groups of greater than ten subjects (Dudley-Marling, 1985) This is in order to reduce the effect of heterogeneity within the LD group (Bryan, 1983; Lapadat, 1991; Soenksen, Flagg and Schmidt, 1981). Due to the scope of the study a total of 28 pre-early adolescents participated in this study. Fourteen of the 28 subjects were language-impaired learning disabled (LILD) pre-early adolescents and the remaining fourteen subjects formed the non-learning disabled (non-LILD) group who were matched in terms of age, sex, socio-economic status and IQ (Intelligence Quotient).

2.2.2 Subject Selection Criteria

2.2.2.1 Language Impaired Learning Disabled Subjects (LILD)

- Subjects were required to have a previous diagnosis of learning disability by a multi-disciplinary professional team.
- Subjects were required to be attending a school for learning disabled children.
- Subjects were required to have global and verbal IQ's greater than 95 and non-verbal IQ's that are average or above average according to a formal intellectual ability test.
- Subjects were required to have a reported history of language impairment.
- Subjects were required to present with no physical or sensory deficits.
- Age: Pre –early adolescent children between the ages of eleven and fourteen were studied. This age group was selected due to the lack of research within this population (Soenksen, Flagg, & Schmidt, 1981; Lapadat, 1991; Larson and McKinley, 1998). Additionally, it is at this period of pre-early adolescent development that children are becoming more socially aware and this impacts on pragmatic development.
- Gender: Previous research has justified gender specific selection criteria (Ely and McCabe, 1993). In order to comply with these stipulations only male participants were used in this study.
- Subjects were required to be first language speakers of English as the researcher is English speaking. This allowed for greater accuracy in analysis of data.
- Subjects were required to come from similar socio-economic backgrounds in order to control for the degree of environmental, linguistic and cognitive exposure (Roth and Spekman, 1984).
- According to the definition of what constitutes a *learning disability* subjects were required to have no known linguistic or environmental deprivation so as not to compromise the test results.

2.2.2.2 Non-Language-Impaired Learning Disabled Subjects

- Non-LILD subjects matched for age, IQ, sex, first language and socio-economic backgrounds were employed in this study.

- All non-LILD subjects were normally achieving pre-early adolescents attending a mainstream school.

- These subjects were required to have no prior history of receiving any special education services (Mathinos, 1991).

- Subjects were required to speak English as their first language.

- The subjects were required not to have any emotional or behavioural disturbances.

- All subjects were required to be between 11 and 14 years of age.

- Subjects were required to have no previous history of language impairment.

2.2.3 Subject Consent

Permission to conduct this research was obtained from the principals of selected schools, the parents of the children involved as well as the subjects themselves.

Written explanations of the purpose and nature of the research were provided to parents of all subjects and signed consent was obtained. All results obtained remained confidential but will be made available to both schools and parents at the completion of the study (Appendix A).

2.2.4 Description of Subjects

Table 2.1 contains the demographic data of the LILD subjects. A more detailed explanation of the data follows.

Table 2.1 Demographic Data of LILD Subjects

Subject Number	Chronological Age	Grade	Gender	IQ: Verbal	IQ: Non-Verbal	IQ: Global
1	11 y 1m	5	M	103	93	98
2	11 y 10m	5	M	100	118	109
3	12 y 6m	5	M	115	113	116
4	12 y 4m	5	M	95	117	99
5	12 y 3 m	6	M	103	90	97
6	12 y 5 m	6	M	104	108	107
7	12 y 2 m	6	M	104	123	110
8	12 y 4 m	6	M	110	111	98
9	12 y 6 m	6	M	111	94	98
10	13 y 3 m	6	M	102	111	109
11	13 y 3 m	6	M	114	113	110
12	13 y 3 m	6	M	98	115	104
13	13 y 11 m	6	M	105	96	101
14	14 y 2 m	6	M	107	100	98

a) Age and Grade

The results of previous studies indicate that adolescents change their communication strategies over time (Wiig and Semel, 1984, Nippold, 1988, Lees and Urwin, 1997). In an attempt to examine the effect of these changes in pre-early adolescent LILD subjects, all participants in this study were males between the ages of 11 and 14 years. As can be seen in Table 2.1 above, the majority of the LILD subjects were in Grade 6 with four

subjects attending Grade 5. Table 2.2 displays the demographic data of the non-LILD subjects.

Table 2.2 Demographic Data of Non-LILD Subjects

Subject Number	Chronological Age	Grade	Gender
1	11y 11m	6	M
2	12y 1m	6	M
3	12y 7m	7	M
4	12y 6m	7	M
5	12y 6m	7	M
6	12y 7m	7	M
7	13y 5m	7	M
8	13y 8m	7	M
9	13y 9m	7	M
10	13y 2m	7	M
11	13y 7m	7	M
12	13y 6m	7	M
13	14y 2m	7	M
14	14y 7m	7	M

As can be seen from the demographic data of the non-LILD subjects in Table 2.2 the majority of these subjects were in Grade 7 with two subjects attending Grade 6. This discrepancy in grade between the LILD and non-LILD group is due to some of the LILD subjects repeating grades due to their learning disabilities.

b) Intelligence Quotients

The LILD subjects were also required to have been tested by a psychologist on the Junior South African Intelligence Scale (JSAIS). Intelligence tests are typically used in

the initial identification of a learning disability. One of the criteria for a diagnosis of LD is a discrepancy between IQ and achievement (Siegel, 1999). For the purposes of this study a global IQ of 95 was taken as the cut off point. This ensured that subjects had a minimum "Average" intellectual capability as determined by the JSAIS, in order to eliminate the effect of outliers (i.e. students who are either high or low achievers academically). The class teachers of both LILD and non-LILD subjects involved were consulted in order to ensure that these subjects were perceived as average students.

c) Speech-Language Deficits

All LILD subjects were still receiving speech-language therapy for expressive language difficulties during the time the study was carried out. The speech-language therapists at the school conduct regular annual receptive and expressive language assessments in order to determine the benefit and need for further therapy. All subjects used in this study were found to still require therapy. All non-LILD subjects had never received speech or language therapy.

2.2.5 Pilot Study

A pilot study was conducted on a group of five LILD children. The data obtained was not included in the main study. The purpose of the initial study was to determine the suitability of the assessment tools as well as to determine methods of recording and data analysis that were suitable. Hence the pilot study was carried out in order to refine any methodological, procedural and scoring aspects.

The results of the pilot study indicated that the pragmatic profile may indeed be a reliable assessment tool, providing in-depth, rich information across numerous parameters of pragmatics. In addition video-taping was determined as a useful method of recording data for later analysis.

The nature of the rating profile indicated the need for at least three raters to allow for greater reliability. However the need for training of raters was realised.

2.3 DATA COLLECTION

2.3.1 ASSESSMENT TASKS

Current literature on pragmatic assessment focuses on either standardised tests or a more functional, naturalistic observational method using pragmatic profiles (McTear and Conti-Ramsden, 1989, Carrow-Woolfolk, 1988, Penn, 1999). Each has both its advantages as well as disadvantages in determining an individual's full pragmatic potential. Those in favour of standardised testing suggest that profiles produce random, meaningless responses that could lead to an improper diagnosis, whereas those in favour of naturalistic observation feel that a child's score on a standardised test provides little significant information of everyday pragmatic ability. However as mentioned previously both methods of assessment have advantages as well as disadvantages. With respect to standardized tests, previous literature supports this method, as a basal score can be obtained which is then compared to age-equivalent measures in order to determine the extent of the pragmatic deficits (McTear, 1985, Wiig & Semel, 1984). Profiles or rating scales are reported as being comprehensive and integrating both verbal and non-verbal behaviours (McTear, 1985, Wiig & Semel, 1984).

This study incorporated both methods of assessment in an attempt to obtain a normative, informative and comprehensive view of pragmatic behaviour in language-impaired learning disabled pr-early adolescents. By assessing communication as a whole and focusing concurrently on the main aspects, the researcher anticipated the opportunity to observe the inter-relatedness and interaction of the variables that shape communication.

2.3.1.1 Standardised Test - Test of Pragmatic Language (TOPL) Phelps-Terasaki & Phelps-Gum, 1992)

A standardised test was employed in this study in order to obtain an individual indication of each subject's knowledge of pragmatic rules. The Test of Pragmatic Language was chosen as a formal assessment measure as it provides an in-depth screening of the effectiveness and appropriateness of a student's pragmatic or social language skills. Norms are provided from 5 – 15 years and the test is recommended as appropriate for high-school age students and specifically for children with learning disabilities. Phelps-Terasaki and Phelps-Gum (1992) state that the results of the TOPL should accomplish the following general purposes:

1. To identify those students who are significantly below their peers in pragmatic language skills.

2. To determine the particular strengths and weaknesses that individual students might possess.

3. To serve as a measurement device in investigations where the pragmatic language behaviour of children and adolescents are being studied.

2.3.1.2 Description of the TOPL Test

The TOPL comprises forty-four items. Thirty-six of these items have corresponding pictures and the remaining eight require only verbal prompts. Bryan (1986) states that effective assessment of pragmatic language ability requires a situation that reflects the dynamics of social interaction, therefore the TOPL utilises narratives and story contexts that include natural, everyday activities and communicative social interactions.

The TOPL is based on a Model of Pragmatic Language (Phelps-Terasaki and Phelps-Gum, 1992) and was constructed as a three-dimensional system. This three-dimensional

system includes two pragmatic modes of communication (receptive and expressive), two pragmatic components (context and message) and finally the six core sub-components of pragmatic language: * Physical Setting, * Audience, * Purpose (Speech Acts), * Topic, * Visual-Gestural Cues and * Abstraction.

1. Pragmatic Modes – The term mode refers to the method of language expression. As ***expressive*** pragmatic language incorporates ***receptive*** pragmatic language, the TOPL test items focus exclusively on the expressive mode. In addition this allows for a reduction in the total testing time.

2. Pragmatic Components – The pragmatic components are divided into ***context*** and ***message***. Message implies the actual communication itself and involves variables such as topic, content, purpose or direction of a conversation, visual-gestural cues that add to or clarify meaning and the use of abstract language. Context refers to the environment in which the conversation occurs as well as the various parties involved in the conversational act. These core sub-components are presented in Table 2.3.

Table 2.3 Variables of Context and Message

	Receptive & Expressive Pragmatic Modes	
	Context	**Message**
Physical Setting	Setting, Event	
Audience	Relationship, Number, Given / New Base, Mood, Turn-taking	No Variables
Topic	No Variables	Sentence/Topic History, Topic Introduction, Selection Content, Maintenance, Change, Breakdown, Repair
Purpose	No Variables	Requesting, Informing, Regulating, Expressing, Ritualizing, Organizing Devices
Abstractions	No Variables	Visual-Gestural Cues, Body Language, Gestures, Facial Expressions, Eye Contact

2.3.1.3 Adaptations to Test

The following vocabulary changes were made to the TOPL in order to ensure that the questions were appropriate to a South African context:

- In questions 12, 13, 39 the word 'cookies' was changed to ' biscuits.'
- In question 21, 'sidewalk' was replaced with 'pavement.'
- In question 25, ' clerk' was changed to 'shop assistant.'
- In question 37 the word 'recess' was replaced with ' break.'
- In question 40, 'vacation' was changed to 'holiday.'

2.3.1.4 Test Administration

Administration of the TOPL was undertaken according to the guidelines provided in the manual regarding the appropriate picture to show the student and the relevant instructions related to each item.

a) Administration Time

The total recommended administration time is between 35 – 40 minutes. However the researcher was alert to factors such as attention span, motivation and fatigue in order to evaluate the students within optimal conditions.

b) Test Environment

The test was administered to each subject individually in a quiet, comfortable, non-distracting environment. This was an allocated classroom in the selected school.

c) Seating

The researcher was seated next to the student at a desk in order to facilitate ease of testing regarding showing the pictures.

2.3.2 CONVERSATIONAL DISCOURSE

Conversational discourse was assessed across two different settings:

- In a structured classroom situation, and
- In an informal group discussion with peers.

2.3.2.1 Adapted Profile of Communicative Appropriateness

McTear and Conti-Ramsden (1992: 180) propose that profiles are an important assessment tool as 'they highlight the clinician awareness of pragmatic areas that are evident in everyday communicative interactions.'

The Adapted Profile of Communicative Appropriateness, which is a combination of two documented checklists (Penn's 1988 Profile of Communicative Appropriatness and Prutting and Kirchener's 1987 Pragmatic Protocol) was used in this study as a comprehensive framework for categorising and analysing pragmatic abilities of language-impaired learning-disabled subjects.

a) Adaptations to the Profile

- Within the category of non-verbal behaviour a category of 'rocking' was added. This variable was observed in the video-taped sessions and the addition was therefore data lead.

- The final category modified was that of 'hyperactivity,' which was changed to 'activity level.' As the subjects involved had no prior diagnosis of 'Attention-Deficit Hyperactivity Disorder,' the possibility that subjects could be *hypoactive* instead of *hyperactive* was catered for by the modification of this component.

The components used added up to a total of 55 aspects of pragmatic ability.

Penn's (1988) original profile contained a six-point scale of appropriateness. These included: *Inappropriate, Mostly Inappropriate, Sometimes Appropriate, Mostly Appropriate, Appropriate and Could Not Evaluate.* Moir (1998) adapted this profile, concluding that inter-rater percentage agreements would have increased substantially if these categories were reduced to two broader categories, namely appropriate and inappropriate. Moir (1998) reports that previous results using the two-category scale was adopted with confidence as minor disagreements were confined to subtle differences within the broader categories.

According to Prutting and Kirchener (1987: 108) the criteria for *appropriateness* are 'parameters are marked appropriate if they are judged to facilitate the communicative interaction or the neutral, *Inappropriate* criteria are defined as ' parameters are marked inappropriate if they are judged to detract from the communicative exchange and penalise the individual' (Ball, Davies, Duckworth and Middlehurst, 1991: 369). However the behaviours observed warranted a medium of clearer distinction between pragmatic behaviour that was inappropriate versus appropriate. The category of *sometimes appropriate* was therefore retained as the raters felt that certain behaviours were debatable and could not be clearly judged as either *appropriate* or *inappropriate*.

The profile was thus rated according to categories of appropriateness across a continuum of behavioural components which were: *Inappropriate, Some Times Appropriate, Appropriate, and Cannot Evaluate (CNE).* Table 2.4 displays the parameters of pragmatic behaviour used to rate subjects in this study.

As can be seen in Table 2.4 below, a final category in the APCA included a column for examples and comments by the researcher. This allowed for a detailed analysis of pragmatic ability across a spectrum of categories and included the possibility that behaviour other than those listed may occur.

Table 2.4 Adapted Profile of Communicative Appropriateness

		I	SA	A	CNE
Response to Interlocutor	Request				
	Reply				
	Clarification Request				
	Acknowledgement				
	Turn Taking				
Control of Semantic Content	Topic Information				
	Topic Adherence				
	Topic Shift				
	Lexical Choice				
	Idea Completion				
	Idea Sequencing				
	Other: Topic Selection				
Cohesion	Tense Use				
	Reference				
	Lexical Substitute Forms				
	Relative Clause				
	Prenominal Adjectives				
	Conjunctions				
Fluency	Interjections				
	Repititions				
	Incomplete Phrases				
	False Starts				
	Pauses				
	Word Finding Difficulties				
Sociolinguistic Sensitivity	Polite Forms				
	Reference to Interlocutor				
	Placeholders, Fillers, Stereotypes				
	Acknowledgements				
	Self Correction				
	Comment Clauses				
	Sarcasm / Humour				
	Control of Direct Speech Acts				
	Indirect Speech Acts				
	Other:-Obsession Compulsion				
	-Echolalia (+delayed)				
	- Splinter Skills (Accents)				
	- Attention				
	- Activity Level				
Non-Verbal Communication	Vocal Aspects: - Intensity				
	- Pitch				
	- Rate				
	- Intonation				
	- Quality				
	Non-verbal: - Facial Expression				
	Aspects:-Head Movements				
	- Body Posture				
	- Breathing				
	- Social Distance				
	- Gesture				
	- Pantomime				
	Other:-Foot, Arm, Leg Movement				
	- Eye Contact				
	- Eye Gaze				
	- Physical Contact				
	- Rocking				

b) Profile Categories

The Profile comprises of six categories, which will be discussed in further detail.

1. Response to Interlocutor

Penn (1988) describes this category as the 'inter-actional component' of conversation. It measures the appropriateness of responses to the input given by another communicator. Specifically it focuses on the subject's co-operation and turn-taking abilities within a communicative interaction.

- *Request:* Wilcox (1992) explains this behaviour as the subject's response to the asking or eliciting of information. This includes responses to requests for objects, actions or information. Prutting and Kirchener (1987) add that this parameter may also involve the subject requesting objects, actions or information from the interlocutor.
- *Reply:* This is defined by Wilcox (1992) as 'comment / response' behaviour. It relates to the interlocutor's ability to follow the course of communication in response to the subject's reply. Replies could entail acknowledgement, answering, naming, providing information, describing or complying.
- *Clarification Request:* Involves the subject's ability to ask for clarification if he/she has misunderstood anything.
- *Acknowledgement:* The subject's response by using non-informative fillers such as 'really?', 'uh huh' etc.
- *Turn-Taking:* smooth interchanges between the speaker and listener.

2. Control of Semantic Content

The semantic component of language is related to the meanings of single words, word combinations, multiple word meanings, figurative language and the effect of context on the nature of meaning (Wiig and Semel, 1984).

- *Topic Information:* The subject's ability to give new information to the communicative partner, about an object or event.
- *Topic Adherence:* The ability to remain focused on the initiated topic, over a succession of turns. This parameter is often referred to by clinicians as 'topic maintenance." Foster (1985) states that the ability to maintain topics develops over time and indicates a major aspect of a child's pragmatic development.
- *Topic Shift:* The ability to successfully and appropriately change topics.
- *Lexical Choice:* selecting lexical items that fit the context. Items selected should be unambiguous and specific (Prutting and Kirchener, 1987).
- *Idea Completion:* The subject's ability to logically complete an idea with appropriate input.
- *Idea Sequencing:* The ability to present ideas in logical sequence in order to ensure understanding by the communicative partner.
- *Topic Selection:* The selection of a topic that is appropriate to the multi-dimensional aspects of context (Prutting and Kirchener, 1987). This includes the ability to appropriately introduce a new topic to a conversational context.

The first four parameters of topic information, adherence, shift and lexical choice measure the subject's ability to transfer information in a coherent, logical, sequential and unambiguous manner. The following two parameters of idea completion and sequencing indicate the subject's understanding or presupposition of new and given information (Penn, 1988).

3. Cohesion

Cohesion refers to the ability to link sentences within conversational discourse. Purcell and Liles (1992) describe cohesion as 'the set of possibilities that exist in language for making text hang together.' The word text refers to any spoken message that forms a unified whole. It is thought to reflect the individual's competence in connecting a series of events in a logical manner and is expressed through both grammar and vocabulary.

- *Tense Use:* Indicates an ability to use grammatical structures to orientate the listener in time and space. This aspect could be linked to sequencing of ideas as the child who himself is not aware of objects and actions in time may present with the inability to logically sequence events or ideas.
- *Reference:* Semantic relations provided when referring to people, places, objects and events in order to ensure listener comprehension.
- *Lexical Substitute Forms:* Establishing a link between previous grammatical item and substituted item.
- *Relative Clause:* Sub-ordinate clause joining to the main clause with a relative pronoun which may be omitted as in 'Sue told me about a wonderful movie [that] she has seen ' (Wiig and Semel, 1984).
- *Pronominal Adjectives:* An adjectival referent that has the characteristics of a pronoun or relates to a pronoun.
- *Conjunctions:* Logical relation between clauses. This involves being able to expand a simple utterance and make it more complex using sub-ordinate clauses. In addition the use of conjunctions could contribute to the ability to combine ideas into a single thought.

4. Fluency

The component of fluency relates to the smoothness, consistency and rate of the message. This aspect involves the listener being able to follow the thread of a communicative utterance that is not too fast or too slow, flows in manner and is pleasing to the ear.

- *Interjections:* The process of inserting one or more words or word fragments in a connected utterance (Wiig and Semel, 1984).
- *Repetitions:* Refers to one (single) or more (multiple) consecutive uses of the same word or phrase within an utterance (Wiig and Semel, 1984).
- *Incomplete Phrases:* An incomplete phrase may result in the confusion of the listener.
- *False Starts:* This indicates an inability to produce an utterance on the first attempt.
- *Pauses:* Wiig and Semel (1984) mention two types of pauses. External pauses refer to a period of silence after the completion of an utterance before the next consecutive

utterance is produced. An internal pause refers to a period of silence within an utterance, clause or phrase.

- *Word Finding Difficulties:* The inability to immediately and directly retrieve a lexical item from the semantic lexicon (Stackhouse and Wells, 1997)

5. Socio-linguistic Sensitivity

- *Polite Forms:* Indicates the subject's sensitivity to turn-taking cue, in response to the communicative setting. This may include direct (comment clauses) or indirect (raising a hand) speech acts.
- *Reference to Interlocutor:* verbal (reply / fillers) or non-verbal (attention, eye contact, foot, arm movement) acknowledgement of a communicator in the environment.
- *Placeholders, Fillers and Stereotypes*: Place holders are words, utterances or stereotypic expressions used to fill a pause or 'hold the place' for the speaker while he is searching for a specific name person, object, action, place or event he / she cannot readily find. A stereotype is a fixed form of expression (Wiig and semel, 1984).
- *Acknowledgements:* Verbal (reply) or non-verbal (nodding head) indicating ongoing or subsequent activities.
- *Self-Correction:* The ability to appropriately restate or rectify a speech act or behaviour that was unintentionally inappropriate.
- *Comment Clauses:* Commenting on the statements or actions of another communicator in order to obtain or terminate an action or response (e.g. Stop that!) Wiig and Semel (1984) mention that this behaviour should be accompanied by justification in children between over eight years of age. (Don't touch, you might get burnt!).
- *Sarcasm / Humour:* The ability to comprehend and utilise figurative language and words with multiple meaning appropriately.
- *Control of Direct Speech Acts:* A variety of utterances that include comments, assertiveness, requests, promises (Prutting and Kirchener, 1987).

- *Other: - Obsession Compulsion:* The ability to control one's thoughts or actions with regard to a specific action, event or behaviour.
  - *Echolalia:* Repeating of one's own or another communicator's utterance.
  - *Splinter Skills / Accents:* A specific ability that the subject performs exceptionally well.
  - *Attention:* The general focus of the subject with regard to the task or communicative interaction at hand.
  - *Activity Level:* As mentioned previously this parameter measured behaviour that was both 'over' and 'under' active.

6. Non-verbal Communication

In any interaction with others many subtle messages may be conveyed by cues other than those in our spoken words. The movement of our bodies, our facial expressions and vocal characteristics may hint at a message that complies or contradicts our spoken utterance. Non-verbal behaviour therefore plays an integral role in providing and interpreting the overall meaning of a transaction or interaction.

- *Vocal Aspects:* Involves appropriate use of intensity, pitch, rate, intonation and the overall quality of speech.
- *Facial Expression:* This parameter marks 'affect' or the ability to convey emotions or to mark specific grammatical structures. Prutting and Kirchener (1987) characterise facial expression as being either positive or negative. Positive expressions include interest, excitement and enjoyment. Negative expressions may consist of distress, anguish, anger, fear or humiliation. (E.g. raised eyebrows to indicate surprise or disbelief). Neutral facial expression is the face at rest. Facial expression could verify the emotional and / or physical state of a subject during a particular communicative interaction and therefore is imperative to data analysis.
- *Head, Foot, Arm or Leg Movements*: Movements of either or all of these body parts that are distracting to the listener or speaker. These movements may be voluntary or involuntary and may involve touching one's self, objects or clothing.

- *Body Posture*: Prutting and Kirchener (1987) describe several aspects of poor body posture. The first is forward leaning, which occurs when the speaker or listener move away from a 90 degree angle towards the other person. Relining is described as slouching from the waist down and moving away from the communicative partner. Side to side is when a person moves either left or right.
- *Breathing* Inhalation and exhalation that is not distracting to the speaker or listener. Breathing should not be effortful, noisy or perceived as unhygienic by others.
- *Social Distance:* The distance in space that the speaker or listener sit or stand from one another.
- *Gesture and Pantomime:* These parameters are often linked in their descriptions. Gesture is reported by Foster (1990) to be actions and / vocalisations produced by the subject with a deliberate intention to communicate (e.g. shaking the head to indicate disagreement). Pantomime is referred to as descriptive gesture in which the form of the gesture mimics it's referent in body movement and posture, such as mimicking a bird with head movements and flapping of the arms. (Mogford, 1996).
- *Eye Contact:* Looking at the communicative partner during an interaction. Mutual gaze occurs when both parties are looking at each other.
- *Eye Gaze:* Prolonged periods of 'staring' at objects or other communicators (Lavoie, 1994).
- *Physical Contact:* Placement of contact between speaker and listener.
- *Rocking:* Moving an object (chair) or one's body in a rhythmical, repetitive manner.

b) The Role of Conversational Contexts in the Assessment of Communicative Function

As communication is a highly complex occurrence, language needs to consider the broader spectrum of communicative components. Duchan (1984) states that the "pragmatic revolution" has resulted in a more inclusive definition of language and within this view language is now defined as communication in a social context. Hoskins (1996) adds to this view by stating, " If pragmatics is the study of language in context, then that context is conversation." Furthermore Penn (1999) states that multiple tasks must be

carried out in order to thoroughly document the child's communicative competence. Roth and Spekman (1984) suggest that context is one of the variables that affect the type and form of communicative intentions conveyed the information that is presupposed and the manner in which the conversations are organized. Therefore the chosen tasks should be administered across familiar contexts such as the structured environment of the classroom. Therefore this study evaluates "conversation" amongst pre-early adolescents in two different contexts.

- **Formal**

The first setting was the formal, structured environment of a classroom with the teacher conducting an interactive lesson. The subjects were seated together in their various classrooms in order to allow for ease of observation during a normal everyday teaching session. The researcher was not present during the lessons.

- **Informal**

Assessment of pragmatics in an informal setting involved a discussion group with four or five peers. The researcher was present in order to introduce an initial topic and thereafter the subjects were left to converse amongst themselves. Each group was provided with the topic ***"SPORT. How does it affect our lives?"*** This topic was thought to be age-relevant and interesting enough to promote a relatively lengthy discussion amongst each group. The subjects were allowed to discuss the topic at their own pace. However they were instructed that topic change and maintenance may occur at their own discretion.

2.3.2.2 Procedure

a) Test Environment

All previous pragmatic studies call for a naturalistic test environment in order to accurately determine the child's pragmatic abilities (Roth and Spekman, 1984; McTear

and Conti-Ramsden, 1989). This study utilises the school environment with the notion that is familiar to the students and private as well as comfortable.

- **Formal**

As mentioned previously the classroom provided the formal test environment.

- **Informal**

A less formal atmosphere such as the library was requested for the peer discussion group.

b) Seating

- **Formal**

The classroom session utilised the seating arrangements prescribed by the teacher, but the students' actual positions were changed in order to group the experimental students together. This was primarily done in order to allow ease of video-taping.

- **Informal**

The discussion took place in a semi-circle with the subjects facing inwards. Actual seat distance and direction was left to the student's discretion in order to assess the pragmatic component of social distance (Roth and Spekman, 1984). If seating dynamics changed during the discussion, the researcher did not interfere.

a) Observation Time

- **Formal**

The structured session was conducted according to the lesson time scheduled by the school, which was 30 minutes.

- **Informal**

Katzenellenbogen, Joubert and Abdool-Karim (1997) suggest an optimal time-span of 60 - 90 minutes for group discussions. However due to the nature of learning disabilities and the attention span of the children the informal discussion group was limited to 30 minutes.

b) Equipment

All interactions between subjects in both in the classroom and within the informal discussion groups were video-taped using a Panasonic video camera and high quality TDK video-tape. The footage was obtained in the least disruptive manner possible. Cole and St. Clair Stokes (1984) state that this form of collecting data enables the researcher to obtain both auditory and visual information relevant to the study. Videotaping instead of audio-taping allowed for repeated viewing in the analysis of the discussion in order to ensure a detailed description of both verbal and non-verbal behaviours.

2.4 TREATMENT OF DATA

Data analysis consisted of scoring the responses of the standardised test as well as rating the behaviours observed across a formal and informal context according to the profile.

2.4.1 Standardised Test – TOPL

The scoring of the TOPL was conducted according to the TOPL test manual. Each item within the test was scored as one (1) if it was correct and zero (0) if it was incorrect. Space was provided at the bottom of each page for anecdotal remarks. An individual score was obtained for each subject. The subject's final score was the number of correct responses, which was then used to obtain standard scores, quotients and percentile ranks from the tables provided in the test manual. The scores obtained from both groups were then compared in order to highlight areas of difficulty as well as aspects where both groups performed well.

In order to determine the strengths and weaknesses of the LILD and non-LILD group an item analysis of each TOPL question was carried out.

2.4.2 Adapted Profile of Communicative Appropriateness

Each subject's performance across a formal and informal context was rated using the APCA, resulting in an individual profile for each participant. In addition total counts of observance of behaviour according to the parameters of the APCA was conducted, following which general trends within and between groups were noted and analysed

A frequency count of pragmatic behaviours was not conducted as the aim of this study was to determine and document whether a specific pragmatic behaviour was observed across contexts, but not to determine how frequently or infrequently the behaviour occurred.

2.4.2.1 Rater Training of Data Analysis

Ball et al. (1991:375) state " if everyone is recording the same behaviour in the same way, then a pragmatic profile is of worth; otherwise it can only be misleading." Therefore prior to the analysis procedure the raters discussed the parameters involved and the

procedure to be followed when completing a pragmatic profile. Clear definitions and examples of behaviours were provided in order to ensure reliability. The three raters were asked to rate each subject individually across both the formal and structured settings.

2.4.2.2 Measures of Reliability

The results of all three raters were tabulated and the majority (i.e. two out of three) rating for each subject was accepted. This was felt to be an effective measure of inter-rater reliability as defined by Haynes, Pindzola & Emerick (1992) who define inter-rater reliability as ' the agreement of two independent judges on the occurrence and type of response produced by the client.' In the majority of subjects all three raters had joint consensus regarding the appropriateness of a particular behaviour.

2.4.2.3 Comparison of Data

A final analysis involved comparing the ratings of each subject across a formal and informal context and thereafter contrasting these findings with those obtained from the standardised test.

3. RESULTS AND DISCUSSION

In this section the findings of the LILD and non-LILD subjects' performance on the standardised Test of Pragmatic Language (TOPL) as well as the ratings of Adapted Profile of Communicative Appropriateness (APCA) are presented.

3. 1 PERFORMANCE OF THE LILD GROUP AND NON-LILD GROUP ON THE STANDARDISED TEST

The results of the LILD and non-LILD subjects' performance are displayed in Table 3.1. A discussion of each of these measures follows.

Table 3.1 Raw Score and Percentile Rank Comparison between LILD and Non-LILD Groups

LILD RAW SCORE TOTAL = 44	LILD PERCENTILE RANK	NON-LILD RAW SCORE TOTAL = 44	NON-LILD PERCENTILE RANK
25	1st	42	69th
37	50th	44	91st
34	27th	41	62nd
35	31st	39	57th
35	25th	36	33rd
35	31st	41	69th
32	12th	38	46th
36	38th	40	69th
33	14th	40	57th
35	31st	41	69th
37	40th	39	50th
35	31st	36	33rd
37	40th	39	50th
38	46th	38	50th

3.1.1 Raw Scores

The raw scores are simply the number of items scored correctly by each subject. They have limited value by themselves and cannot be used to make clinical interpretations of an individual's performance. However raw scores are used to derive percentiles, age-equivalents and quotients and can be used to make comparisons between groups (Hanmill, 1982). The LILD group scored an average raw score of 35. This resulted in an age-equivalent mean score of 9.0– 9.6 years. The average raw score total for the non-LILD group was 39, which results in an age equivalent of 12.9 – 13.6 years. Scores for the test out of the total of 44 were higher for the non-LILD group and within a range that started at a much higher raw score i.e. between 36 – 44 while the LILD group scored between 25 – 38.

3.1.2 Percentile Mean

Percentiles represent a value on a scale of 100 that indicates the percentage of the distribution that is equal to or below the value (Howell, 1989). However, it is important to note that the differences between successive percentile ranks do not represent equal amounts of the information being measured. As can be seen in Table 3.1 the LILD group scored on average in the 30th percentile, while the non-LILD group were within the 58th percentile.

3.1.3 Age-Equivalent

The age-equivalent scores for both groups are presented in Table 3.2 on the following page. Although the chronological age of the subjects was well matched, the average age-equivalent determined by their respective test results was significantly different. The non-LILD group scored within an average appropriate age equivalent of 12.9 – 13.6 years whereas the LILD group scored well below their average age equivalent at 9.0. – 9.6 years. This was as a result of thirteen of the fourteen LILD subjects scoring below the age appropriate level and only three of the non-LILD group subjects scoring inappropriately.

Table 3.2 Chronological Age Compared to Age-Equivalent Scores on the Test of Pragmatic Language

No.	LILD Group Chronological Age	LILD Group Age-Equivalent Scores	NON-LILD Group Chronological Age	NON-LILD Group Age-Equivalent Scores
1	11 y 1m	8.6. – 8.9.	11 y 11m	14.9. – 15.6.
2	11 y 10m	10.9. – 11.6.	12 y 1m	14.9. – 15.6.
3	12 y 6m	6	12 y 7m	12.9. – 13.6.
4	12 y 4m	9.0. – 9.6.	12 y 6m	14.9. – 15.6.
5	12 y 3m	9.0. – 9.6.	12 y 6m	14.9. – 15.6.
6	12 y 5m	7.9.	12 y 7m	11.9. – 12.6.
7	12 y 2m	9.9. – 10.6.	13 y 5m	14.9. – 15.6.
8	12 y 4m	9.0. – 9.6.	13 y 8m	14.9. – 15.6.
9	12 y 6m	9.0. –9.6.	13 y 9m	9.9. – 10.6.
10	13 y 3m	9.0. – 9.6.	13 y 2m	11.9. – 12.6.
11	13 y 3m	8.0. – 8.3.	13 y 7m	12.9. – 13.6.
12	13 y 3m	10.9. – 11.6.	13 y 6m	9.9. – 10.6.
13	13 y 11m	10.9. – 11.6.	14 y 2m	12.9. – 13.6.
14	14 y 2m	11.9. – 12.6.	14 y 7m	13.9.- 14.6

Two of those subjects in the non-LILD group who did not score age-appropriately scored within six months of the results appropriate for that age group whereas subjects in the LILD group scored at a delay of approximately two to three years.

This discrepancy in age-equivalent scores supports the findings by Phelps-Gunn (1983) who investigated the change in pragmatics over time in both LILD and non-LILD subjects. Phelps-Gunn's (1983) results revealed minimal difference between the chosen subject groups at the age of six years, however as the subjects grew older the difference in communicative ability became large and significant. When the LILD group were aged between seven and eight years they were still functioning at a six-year-old level of pragmatic competence, while their peers were acquiring complex pragmatic skills.

3.1.4 Quotient

The calculated quotients of both groups are presented in Table 3.3 below.

Table 3.3 Quotient Scores of LILD and Non-LILD Groups

LILD QUOTIENT	LILD RATING	NON-LILD QUOTIENT	NON-LILD RATING
90	Average	107	Average
65	Very Poor	120	Above Average
92	Average	105	Average
84	Below Average	103	Average
83	Below Average	93	Average
100	Average	107	Average
98	Average	107	Average
95	Average	103	Average
96	Average	107	Average
92	Average	100	Average
91	Average	93	Average
92	Average	100	Average
92	Average	100	Average

The quotient is constructed to have a mean of 100 and a standard deviation of 15 (Phelps-Terasaki and Phelps-Gunn, 1992). The results of the LILD group is equivalent to a quotient of 84 which is scored as 'Average' and the non-LILD group quotient equivalent is 96 which also produces an 'Average' score. Although the quotients for both groups reflect an 'average' performance, other TOPL measures showed poorer performance in the LILD group.

3.1.5 Standard Scores

A standard deviation of 1 and a mean of zero were used to calculate the standard scores from the percentile rank (Howell, 1989). Hammill (1982) suggests that standard scores are the clearest indication of an individual's performance as they are transformations of raw scores that establish a common mean score and standard deviation. The range of standard scores on the TOPL is one to nine with nine at the top of the scale. Subjects

scoring below five are considered below the normal for that age group (Phelps-Terasaki and Phelps-Gunn, 1992).

TABLE 3.4 STANDARD SCORES OF LILD AND NON-LILD GROUP

LILD GROUP			NON-LILD GROUP		
Standard Score M=5, SD = 1.96	z-Score M = 0, SD = 1	T-Score M = 50, SD = 10	Standard Score M = 5 SD = 1.96	z-Score M = 0, SD = 1	T-Score M = 50, SD = 10
1	-2.33	28	6	0.5	55
5	0	50	8	1.34	63.4
4	-0.61	43.9	6	0.31	53.1
4	-0.5	45	5	0.18	51.8
4	-0.67	43.3	4	-0.44	45.6
4	-0.5	45	6	0.5	55
3	-1.18	38.2	5	-0.1	49
4	-0.31	46.9	6	0.5	55
3	-1.08	39.2	5	0.18	51.8
4	-0.5	45	6	0.5	55
4	-0.25	47.5	5	0	50
4	-0.5	45	4	-0.44	45.6
4	-0.25	47.5	5	0	50
5	-0.1	49	5	0	50

The standard score measures for both subject groups are presented in Table 3.4. These scores clearly reflect the difference in performance between the two groups. Only two subjects in the LILD group have scored above four, whereas only two subjects in the non-LILD group scored below five. This indicates that 86% of the LILD group and only 14% of the non-LILD group scored below the expected age for their group

3.1.6 Time

The TOPL test manual suggests an optimum time of 35 - 40 minutes for the administration of this test. The LILD group took approximately 5 - 10 minutes longer than the non-LILD group to complete the test. Although both groups completed in the

suggested time limit, the increased length in the LILD group time is thought to be due to the time taken to answer each question and the tester repeating the questions in order to clarify the required response. Smith (1998) notes that children with language impairments take longer to acquire various aspects of communicative competence and seem to also take longer to access the information once it is acquired.

3.2 SUMMARY OF TOPL FINDINGS

A summary of the TOPL findings mentioned previously are illustrated in Figure 3.1 below.

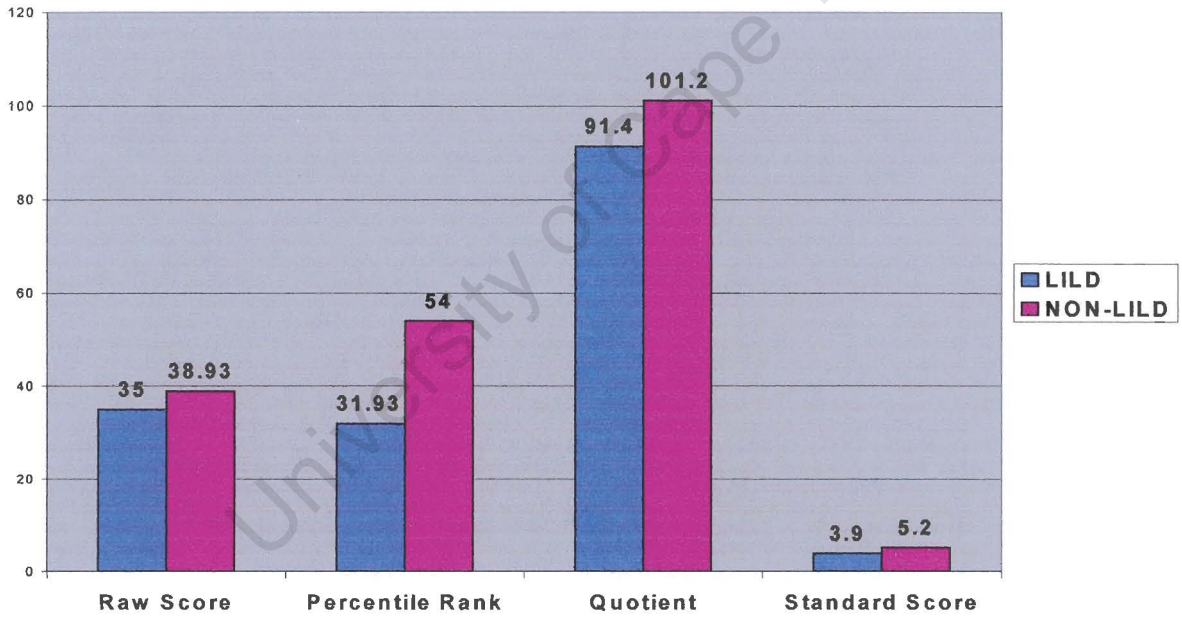


Figure 3.1 Main Statistical Differences between LILD and Non-LILD Groups on the TOPL

When interpreting the scores of any test it is important to note that language is a complex issue to measure. Therefore a single statistical measure can prove misleading. For example if the quotient is taken as the only measure both the LILD and non-LILD groups appear to be functioning within an 'average' level. However if the overall performance of both groups is examined is using all four variables, of raw score, percentile ranks,

quotient and standard scores as a measurement index, the level of pragmatic function and difference between groups is highlighted. The non-LILD group appears to perform better than the LILD group and within age-appropriate norms.

A further area of importance with regard to the TOPL scores relates to the diagnostic relevance of the test. Although the LILD group weaknesses have been noted, intervention in the pragmatic sphere should involve a more in-depth analysis of an individual's ability in order to plan intervention and determine potential for progress (McTear, 1985). Therefore an item analysis was conducted. Furthermore this would facilitate a comparison between the results on the TOPL and the profile.

3.3 ITEM ANALYSIS OF TOPL

An item analysis revealed that both LILD and non-LILD subjects performed poorly on similar items but to varying degrees. The percentage of LILD subjects who performed poorly was greater than that of the non-LILD subjects. The particular items which resulted in poorer performance across both group targeted the following skills: inference, informing / describing, sequencing and comparison. The results of an item analysis on the TOPL are tabulated in Table 3.5 below:

Table 3.5 Item Analysis of TOPL Results

Question Number	LILD Group – Number Wrong	LILD Group % Wrong	NON-LILD Group–Number Wrong	NON-LILD Group % Wrong
1	-	-	-	-
2	13	86	9	60
3	-	-	-	-
4	-	-	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-
8	3	20	-	-
9	1	7	-	-
10	-	-	-	-
11	-	-	-	-
12	3	20	1	7
13	2	13	1	7

Question Number	LILD Group Number Wrong	LILD Group %Wrong	NON-LILD Group Number Wrong	NON-LILD Group % Wrong
14	1	7	-	-
15	3	20	-	-
16	-	-	-	-
17	-	-	1	7
18	3	20	-	-
19	2	13	1	7
20	6	40	2	13
21	2	13	3	20
22	3	20	1	7
23	2	13	1	7
24	3	20	4	27
25	4	27	1	7
26	2	13	4	27
27	4	27	-	-
28	2	13	-	-
29	6	40	3	20
30	1	7	1	7
31	2	13	2	13
32	9	60	8	53
33	3	20	-	-
34	-	-	2	13
35	1	7	-	-
36	1	7	-	-
37	6	40	2	13
38	4	27	-	-
39	8	53	6	40
40	7	47	2	13
41	2	13	4	27
42	5	33	3	20
43	12	80	8	53
44	9	60	4	27
TOTAL	135	135/660 = 20.4	74	74/660 = 11.2

3.3.1 Unfamiliar Lexicon

The LILD group scored poorly on two out of five questions testing inference while the non-LILD group only had difficulty with Question 2. Question 2 read as follows: "Jill was telling about mufflers, lights and batteries. What was she talking about – a car or a flashlight?" The actual question and its semantic content must be taken into account when computing test results. The vocabulary in this particular question i.e. the word "mufflers" is not frequently used within a South African context. The other question where the LILD group scored poorly was question 42. This involved a very lengthy

introduction of a classroom situation where the subjects were required to infer the consequences of a teacher yelling at a child by mistake. Possible reasons for the poor performance of the LILD group on this item may have been to an increased amount of information as well as their general inability to take the perspective of others (Ball, 1992).

3.3.2 Perspective

Questions 24, 25, 32, 37 and 40 required the subjects to inform another person of certain events such as informing the neighbour that they had accidentally hit a ball through his garage window. The subjects in both groups scored poorly for different reasons on these questions. The LILD group were unable to take the perspective of the other person and explain the situation or their feelings while the non-LILD group were able to express feelings but unable to justify them (Lapadat, 1991).

Although subjects in both groups performed poorly across these questions, the LILD group performed more poorly than the non-LILD group. It has been suggested that adolescents in general are unable to take on the perspective of others. They are reported to be self-centered and unconcerned for others during this period of development (Ball, 1992). Interestingly the LILD group also found requesting information and negotiating information as difficult as giving information (Questions 20 and 29). This reduced the overall semantic content of their communication.

The LILD subjects performed unsatisfactorily across questions that required them to inform others of their intentions or to describe actions and events to others. Donahue, Pearl and Bryan (1980) in Lapadat (1991) suggest that this inaccuracy in communicating information to others is a combination of not realising listener needs, being unable to determine the quantity of information to convey and making less complex statements.

3.3.3 Sequencing

The single question that targeted sequencing, Question 39, was one of the questions that had to be repeated to both groups by the examiner during the administration of the test. It may be argued that this particular item requiring the subjects to correctly describe a sequence of making and baking biscuits, was gender specific and hence accounted for the poorer performance displayed by these male subjects.

3.3.4 Comparisons

Question 43 involved comparisons and was scored incorrectly by 80% of the LILD and 53% of the non-LILD group. The question asked 'How is a blanket like grass? The subjects were required to indicate that both perform a covering function with a blanket covering a person or a bed and grass covering the ground. The time duration taken for subjects to reply to this question was equally longer than any of the other questions across both groups. However Question 31 ('How is a road map like a recipe?) which also involved a comparison being made was scored equally well (13% wrong) by both groups. It is thought that perhaps Question 43 was a particularly difficult question due to the actual association and comparison being made. In addition the researcher felt that the answer required was restrictive. Examples of subjects' responses included, 'both are soft,' or 'both can be sat on,' which are considered by the researcher to be appropriate responses.

3.3.5 Expressing Emotions

In Question 44 subjects were required to express emotions. The majority of the LILD group scored lower than the control group. This question also involved taking the perspective of another person, which may have contributed, to its difficulty. Soensken, Flagg and Schmits (1981) state that learning disabled individuals have difficulty taking the perspective of another person as well as expressing emotions in relation to the other person. They add that children with learning disabilities can be very literal in their

expressions, which can lead to misunderstanding of their emotions. Silver (2001) adds that LILD children perform poorly on tasks that tax their auditory memory. Perhaps the increased amount of information and the length of the question could have played a role in the poor LILD subject performance.

3.3.6 Overview of TOPL Item Analysis

From the percentages obtained of the incorrect answers given by both groups the LILD group generally scored considerably lower than the non-LILD group. The LILD group seemed to find similar questions across a particular skill difficult while the non-LILD subjects struggled with specific questions. This is indicated by the poor performance of the LILD subjects on more than one question within a category, hence implying greater difficulty in the use of underlying skills.

3.4 ANALYSIS OF LILD AND NON-LILD GROUPS CONVERSATIONAL DISCOURSE ACROSS FORMAL AND INFORMAL SETTINGS USING THE ADAPTED PROFILE OF COMMUNICACTIVE APPROPRIATENESS

Samples of conversational discourse obtained within formal and informal settings were rated using the APCA. Three raters analysed the samples using the six sub-components of the APCA which are *Response to Interlocutor, Control of Semantic Content, Fluency, Cohesion, Sociolinguistic Sensitivity* and *Non-Verbal Behaviour.* The results obtained from the rating within these sub-components are discussed according to whether the communicative behaviour observed was *Inappropriate* (I), *Sometimes Appropriate* (SA), *Appropriate* (A) and *Could Not Evaluate* (CNE). The category of *sometimes appropriate* is used as a medial ground where the raters did not feel that subjects were completely *appropriate* or *inappropriate*.

The items within each sub-component of the profile are compared between the LILD and non-LILD groups as well as within the LILD group across the formal and informal sessions.

Table 3.6 and Table 3.7 which follow, present the combined profiles for the LILD group. These scores are expressed as percentages of the number of LILD subjects within the group who displayed pragmatic behaviours that were *appropriate, sometimes appropriate* or *inappropriate.* Examples of individual profiles of subjects from both the LILD and non-LILD group can be seen in Appendix B.

As the non-LILD group displayed appropriate pragmatic behaviours within all parameters of the APCA formal and informal context, a combined profile for this group is not presented.

Table 3.6 Percentages of LILD Subjects' Use of Behaviours : Formal Context

LILD Class Discussion The Adapted Profile of Communicative Appropriateness					
		I	SA	A	CNE
Response to Interlocutor	Request		27	73	
	Reply	7	27	67	
	Clarification Request	20	43	27	
	Acknowledgement	7	33	60	
	Turn Taking	14	27	60	
Control of Semantic Content	Topic Information	20	27	53	
	Topic Adherence	27		73	
	Topic Shift	46	7	40	
	Lexical Choice	7		93	
	Idea Completion	34	27	40	
	Idea Sequencing	34	27	40	
	Other: Topic Selection	47	47	7	
Cohesion	Tense Use			93	7
	Reference			87	13
	Lexical Substitute Forms			93	7
	Relative Clause	53	20	27	
	Prenominal Adjectives	60	13	20	7
	Conjunctions	54	26	13	7
Fluency	Interjections			87	13
	Repititions			93	7
	Incomplete Phrases	7	7	80	7
	False Starts			93	7
	Pauses			93	7
	Word Finding Difficulties			93	7
Sociolinguistic Sensitivity	Polite Forms	7		87	7
	Reference to Interlocutor	26	7	33	
	Placeholders, Fillers, Stereotypes	7	13	80	
	Acknowledgements	40	20	40	
	Self Correction		13	73	13
	Comment Clauses	20		80	
	Sarcasm / Humour	40	47	13	
	Control of Direct Speech Acts			93	7
	Indirect Speech Acts			93	7
	Other:-Obsession Compulsion	7		93	
	-Echolalia (+delayed)			100	
	- Splinter Skills (Accents)			100	
	- Attention	14	66	20	
	- Activity Level	14	66	20	
Non - Verbal Communication	Vocal Aspects: - Intensity	7	7	87	
	- Pitch	7		93	
	- Rate	7		93	
	- Intonation	7	40	53	
	- Quality	14	14	73	
	Non-verbal: - Facial Expression	40	47	13	
	Aspects:-Head Movements	7		93	
	- Body Posture	27	14	60	
	- Breathing			100	
	- Social Distance	7	40	53	
	- Gesture	20	40	33	7
	- Pantomime		20	80	
	Other:-Foot, Arm, Leg Movement	20	26	53	
	- Eye Contact	20	53	27	
	- Eye Gaze	47	33	20	
	- Physical Contact	7	26	67	
	- Rocking	7	26		

Table 3.7 Percentages of LILD Subjects Use of Behaviours : Informal Context

LILD Informal Discussion-Adapted Profile of Communicative Appropriateness					
		I	SA	A	CNE
Response to Interlocutor	Request	27	60	13	
	Reply	13	74	13	
	Clarification Request	27	67	7	
	Acknowledgement	26	67	7	
	Turn Taking	60	40		
Control of Semantic Content	Topic Information	33	67		
	Topic Adherence	60	40		
	Topic Shift	74	26		
	Lexical Choice	7		86	7
	Idea Completion	34	66		
	Idea Sequencing	34	67		
	Other: Topic Selection	46	54		
Cohesion	Tense Use			93	7
	Reference			87	13
	Lexical Substitute Forms			93	7
	Relative Clause	60	20	20	
	Prenominal Adjectives	67	13	13	7
	Conjunctions	60	26	7	7
Fluency	Interjections			87	13
	Repititions			93	7
	Incomplete Phrases	7	7	80	7
	False Starts			93	7
	Pauses			93	7
	Word Finding Difficulties			93	7
Sociolinguistic Sensitivity	Polite Forms	47	47	7	
	Reference to Interlocutor	26	60	13	
	Placeholders, Fillers, Stereotypes	7		87	7
	Acknowledgements	47	40	13	
	Self Correction	13	13	60	13
	Comment Clauses	20	80		
	Sarcasm / Humour	33	60	7	
	Control of Direct Speech Acts			93	7
	Indirect Speech Acts			93	7
	Other:-Obsession Compulsion	7		93	
	-Echolalia (+delayed)			100	
	- Splinter Skills (Accents)			100	
	- Attention	33	67		
	- Activity Level	47	54		
Non - Verbal Communication	Vocal Aspects: - Intensity	7	7	87	
	- Pitch	7		93	
	- Rate	7		93	
	- Intonation	7	40	53	
	- Quality	14	14	73	
	Non-verbal: - Facial Expression	33	40	7	
	Aspects:-Head Movements	7		93	
	- Body Posture	27	34	40	
	- Breathing			100	
	- Social Distance	20	40	40	
	- Gesture	20	40	33	7
	- Pantomime		20	80	
	Other:-Foot, Arm, Leg Movement	34	14	53	
	- Eye Contact	60	27	13	
	- Eye Gaze	67	20	13	
	- Physical Contact	7	33	60	
	- Rocking	27		73	

3.4.1 RESPONSE TO INTERLOCUTOR

3.4.1.1 Requesting and Clarifying Information

The majority of the LILD group were rated as *sometimes appropriate* in an informal context with regard to requesting and clarifying information. Snyder (1984) suggests that the inability to request clarification stems from the LILD children's inadequacy in recognising less adequate messages, despite possessing the linguistic skills necessary to clarify messages. In a formal environment the majority of the LILD group scored *appropriately* when requesting information i.e. by raising their hands.

The non-LILD subjects were able to use clarification strategies with peers as well as with the teacher in order to facilitate flow of conversation. These findings support those of Brinton and Fujiki (1988) who noted that children with language impairments were unable to use clarification strategies as compared to linguistically normal children. This was evident in the LILD group across all situations.

3.4.1.2 Replies and Acknowledgment

The majority of the LILD subjects were rated *sometimes appropriate* with regard to replying and acknowledging the speaker in an informal setting. These findings support past research by Donahue, Pearl and Bryan (1980) who state that this is a part of the learning disabled individuals failure to realise their role as conversational partners. However in a structured situation with the teacher prompting the LILD students, their ratings changed to mostly *appropriate* when replying or acknowledging an adult facilitator.

The non-LILD group were rated as being appropriate in their replies and acknowledgement of each other and their teacher.

3.4.1.3 Turn Taking

Turn taking observed in the non-LILD group was rated appropriate across both contexts. The subjects in the non-LILD group were attentive to the listener while waiting their turn to speak. When a particular subject began speaking appropriate strategies such as gesture, raising the voice slightly, changing eye contact or using filler sentences were used.

However the turn taking skills of the LILD group appear to be poor and in need of facilitation by an adult. Some of the behaviours that indicated poor turn taking skills in the LILD group included:

- One child in each group adopted the role of facilitator and tried to control the discussion, which was considered *inappropriate.* In the beginning the self-appointed facilitator would engage each child individually in the circle. Later on in the discussion the LILD group seemed to dissolve the subtle rules present and proceeded to talk over one another or not to contribute at all. Although this behaviour may seem to be organised it was considered inappropriate as the child who assumed the role of facilitator was generally the most outspoken and appeared to try and stay in control, but did not act in the capacity of facilitator to the others responses or acknowledge their responses before moving on to the next person.

- Further *inappropriate* behaviour was observed where the LILD subjects raised their hands in the group situation when they wanted to speak. This may indicate an over-generalisation of the rule from the more formal classroom setting.

In the LILD groups' formal lesson where structured responses were required, the raising of a child's hand was expected and welcomed by the teacher who indicated permission to speak. Therefore turn taking skills were enhanced by the presence of a an adult facilitator in a formal setting

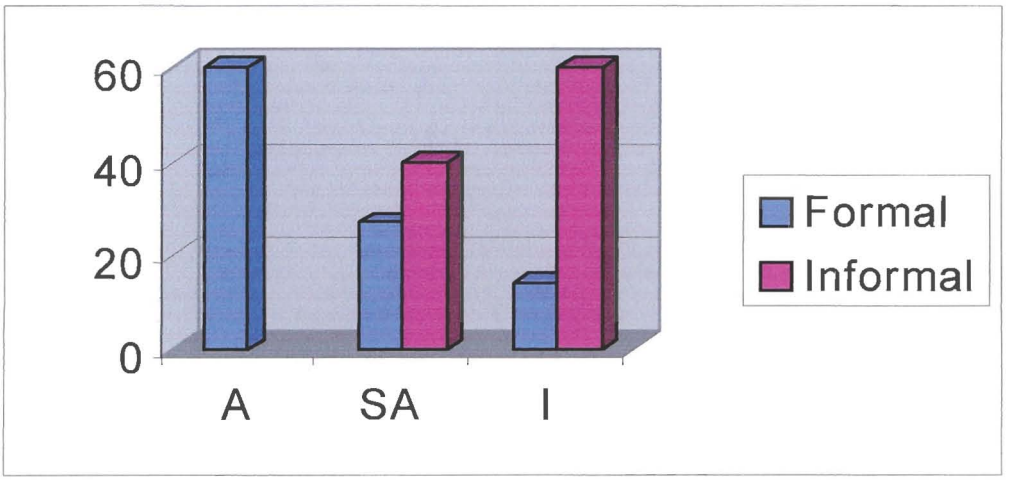


Figure 3.2 Turn Taking of LILD Group between a Formal and Informal Context

3.4.2 CONTROL OF SEMANTIC CONTENT

The control of semantic content was one of the sub-components of the profile where the LILD subjects had difficulty across all aspects. Although not measured their information on both the given and initiated topics was perceived by the raters to be uninformative and lacking in Grice's (1975) four principles of quality, quantity, relevance and manner. They were not able to elaborate on a topic possibly due to limited vocabulary or to a lack of general knowledge.

3.4.2.1 Idea Completion and Sequencing

The LILD group appears to have major difficulties in this area and subjects presented with a scatter of scores. Wiig and Semel (1984) state that children with learning disabilities often have difficulty sequencing speech acts when they are trying to express communicative intent. After maintaining a discussion on the given topic of *sport*, the non-LILD group appropriately initiated and shifted to relevant, mature topics such as the restructuring of their school in terms of being co-educational. Their ideas were well presented and sequenced as well as completed before moving to the next topic.

The variables of idea completion and sequencing changed from 34% of the LILD group being *inappropriate* and 66% being *sometimes appropriate* in the informal setting to 40% being *appropriate* in a classroom context. While 60% of these subjects remained *inappropriate* the change noted in the others contributed positively to the lesson. This change in results was probably due to the cueing of the teacher in the structured setting.

3.4.2.2 Topic Selection and Lexical Choice

None of the LILD subjects scored *appropriately* with regard to topic selection in the peer group discussion. The topics that were selected appeared to be at a level normally associated with much younger children and was often not of mutual interest to the rest of the group e.g. Pokemon. The perceived age-inappropriate topics of the LILD subjects in comparison to the non-LILD subjects were apparent across a formal and informal situation. The discussion of the non-LILD group was informative, engaging of the others in the group and entertaining whereas the LILD group used language and topics that were expected of a much younger age group.

The topic being discussed in the classroom was chosen by the teacher in both groups. The non-LILD group initiated and maintained a more in-depth discussion, whereas the LILD subjects merely answered the actual, question being asked. Although 40% of the LILD group shifted topic *appropriately*, the remainder were *inappropriate* even with the teacher present. However the teacher was able to redirect the subjects back to the discussion at hand. The majority of the chosen topics in the classroom were rated as *sometimes appropriate*. That is, if the topic being discussed was the 'Wetlands' and the teacher was asking if anyone had been to a Wetland area, a child who had been on holiday might feel it appropriate to mention that he / she had been to Johannesburg. While this statement may be considered tangential it was not considered inappropriate as the child was following up on the topic of visiting a different place.

There was no apparent difficulty with lexical choice across both groups in either the formal or informal setting

3.4.2.3 Topic Adherence and Shift

Silver (2001) suggests that the central pragmatic language difficulty in LILD individuals is producing language on demand and fitting that utterance into a particular context. Silver (2001) mentions that children with learning disabilities can generate and speak on topics of their own choice but cannot generate pragmatically appropriate language, on a topic given by an outside source. The results of this study partially support these findings as the LILD group were able to contribute to the given topic in the group discussion, although minimally. Topic adherence and shift was observed to be at a faster, *inappropriate* pace in the LILD group as compared to the non-LILD group, who *appropriately* completed ideas before initiating and swititching to a new topic. However the LILD subjects were unable to appropriately initiate or shift to other topics which were relevant. Bryan, Donahue, Pearl and Sturm (1981) investigated the conversational competence of children with learning disabilities and found that although they were often willing conversational partners, their strategies for initiating and maintaining interaction was deficient.

The LILD group were better able to respond to language on demand in the classroom when a specific topic and outcome was required.

Figure 3.3 LILD Control of Semantic Content in a Formal Context

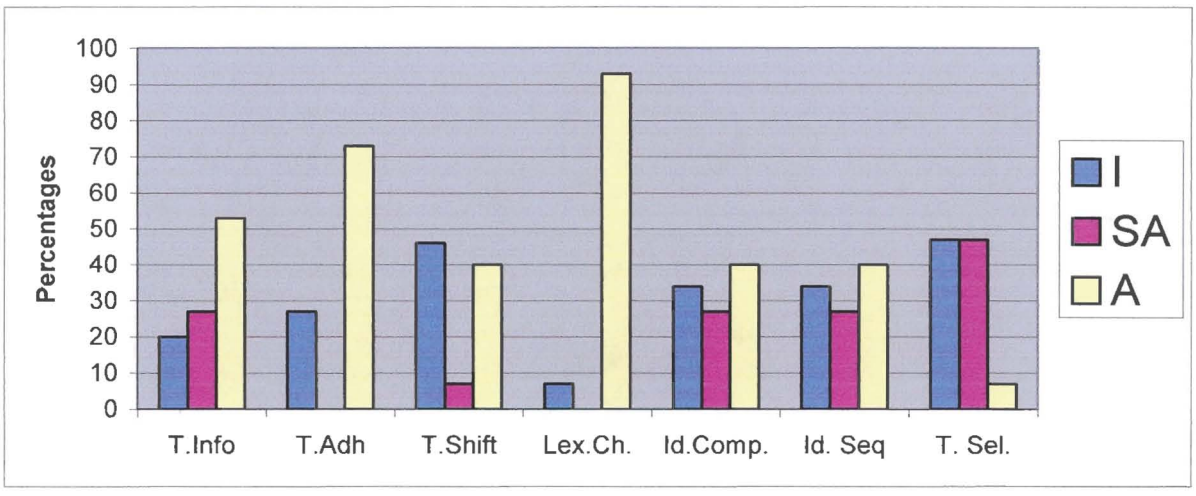
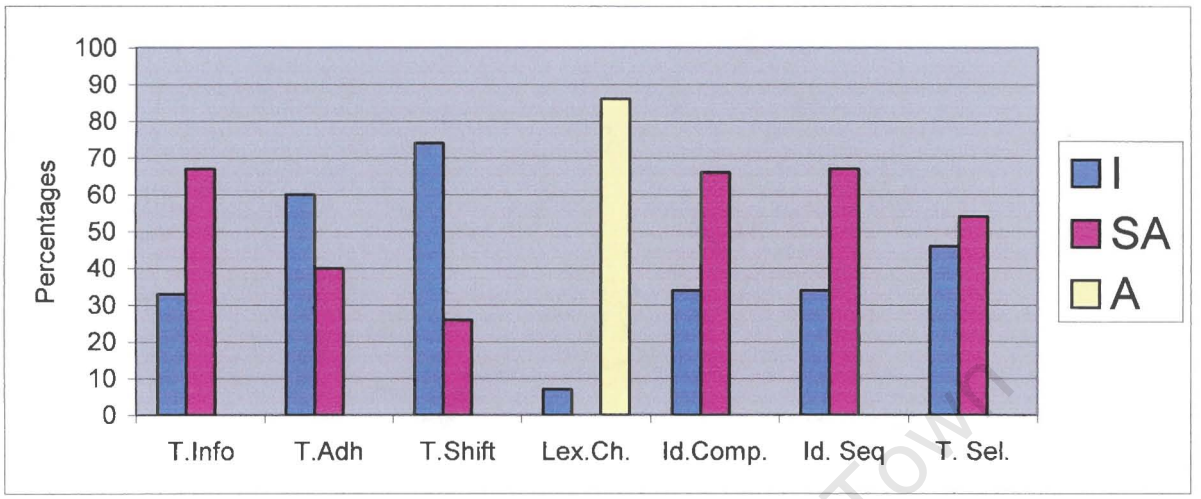


Figure 3.4 LILD Control of Semantic Content in an Informal Context



3.4.3 FLUENCY

No changes were evident in the fluency of subjects between a formal an informal setting.

The majority of the LILD group were rated *appropriate* with regard to their fluency. Inappropriate interjections, repetitions, incomplete phrases, false starts and pauses were absent in both groups.

3.4.3.1 Word-finding Difficulties

Children with learning disabilities are often unable to use associative grouping strategies in order to categorise information for easy retrieval at a later stage (Stackhouse and Wells, 1997). However the subjects in the present study revealed no evidence of word finding problems. Whether this was due to the absence of word finding problems, effective therapy methods or the limitations of the testing environment in observing these difficulties remains unsure.

3.4.4 COHESION

Tense use, reference and lexical substitute forms were rated as *appropriate* in the majority of the LILD group as well as the entire non-LILD group.

3.4.4.1 Conjunctions, Adjectives and Clauses

With regard to extending their sentences and describing events or objects the LILD group scored poorly. They were rated as mostly *inappropriate* when using relative clauses, prenominal adjectives and conjunctions. This supports Wiig and Semel (1984) who indicate that children with language learning disabilities often use immature or early forms of speech acts when trying to realise a communicative function. The absence of complex conjunctions reduces the mean length of an utterance, as sub-ordinate clauses are absent. Although a formal word-count was not conducted, the non-LILD group appeared to use longer sentences with complex conjunctions and made extensive use of sub-ordinate clauses. The LILD subjects appeared not to use these parts of speech but rather adhered to simple conjunctions and therefore shorter sentences.

Rinaldi (2000) noted that changes in syntactic and semantic complexity of utterances are naturally occurring phenomena as children get older. In contrast, LILD individuals are reported to have difficulty in varying the complexity of their utterances with regard to the age and status of their listener. The findings from the LILD group in the present study support this statement, as utterances in the classroom were equally short and not elaborated on. When talking to a child our sentences tend to be shorter, less complex and more direct than with adults. Bryan, Donahue and Pearl (1981) mention that the changes from formal to informal, from complex to simple and from direct to indirect speech acts are facilitated by listener cues such as size (age), status (clothing), posture and facial expression in order to determine our style and length of utterance. While the LILD group were able to become more formal with a teacher present, they were unable to expand their sentences in both situations irrespective of listener needs. The non-LILD group were *appropriate* in their use of conjunctions, adjectives and sub-ordinate clauses.

3.4.5 SOCIOLINGUISTIC SENSITIVITY

3.4.5.1 Polite Forms, Acknowledgment and Reference to Interlocutor

Within the context of an informal peer group discussion, the non-LILD group were able to acknowledge the other group members. However the LILD group were impolite within a peer group situation in that they did not respond or partake in the discussion at hand. In the classroom 40% of the LILD group were able to acknowledge not only the authoritative figure of the teacher but peers as well.

The majority of the LILD group were rated *inappropriate* with respect to reference and acknowledgment of the interlocutor. This does not correspond with the TOPL results where subjects used *appropriate* politeness markers and responded well to given interlocutors. These results may suggest that learning disabled individuals are able to determine the correct responses in structured situations but are unable to carry out these responses in a more spontaneous informal context. The non-LILD subjects responded well on the TOPL questions and were able to carry over these skills *appropriately* in the group discussion and classroom situation.

Reference to the interlocutor ratings changed from 13% of the LILD group being *appropriate* in the informal discussion to 33% of the LILD group being *appropriate* in the classroom.

Although Wiig and Semel (1984) propose a general immaturity of speech acts across formal and informal situations, the LILD group were able to code-switch to a formal norm in the structured classroom environment with a teacher present. Code-switching which is defined by Soensken, Flagg, and Schmits (1981) as modifying one's own language production as a function of listener characteristics, develops at an early age of around four years in normal children. During their early years children need to code-switch constantly amongst family, friends and teachers. Failure to appropriate these skills would result in the child being seen as inflexible and immature. The results of Soensken,

Flagg, and Schmits (1981) study indicated that non-disabled children were more likely to code-switch when exposed to different situations and implied that LD children were less flexible across contexts.

However, the LILD group performed as well as the non-LILD group when it came to code switching between contexts, therefore suggesting a contradiction with Soensken, Flagg, and Schmits (1981) study. The researcher suggests that within these familiar scholastic environments the schema for code switching has been internalised since early childhood and is therefore easily accessed and utilised. This supports Gresham (1995), who notes that schools are one of the most important settings in which children acquire, develop and refine the skills that are essential for establishing and maintaining interpersonal relationships.

3.4.5.2 Obsessions, Echolalia, Splinter Skills

Learning disabled children are reported by numerous studies as not being able to comprehend the world around them to the best of their ability. Foss (2001) uses the metaphor "they do not see the wood for the trees," to explain their deviance in social perception. However Reed and McAllister (1995) stress that although these behaviours may affect pragmatic ability, they are not as severely abnormal as the behaviours present in autistic children and do not indicate fundamental differences in personality. There was no evidence of these behaviours in either group in this study.

3.4.5.3 Self-Correction and Comment Clauses

The non-LILD subjects self-corrected *appropriately* when needed.

The LILD group seemed to be aware of their *own* difficulties and 60% were able to self-correct *appropriately*. This is indicative that there were several incidents where this group was inappropriate but managed to correct themselves. However although this group seemed aware of the inappropriate behaviour and comments of other members in

their group who were rocking etc. 80% were only *sometimes appropriate* in their comment clauses in a group discussion. This same percentage changed to being *appropriate* in a classroom context when using comment clauses in order to get another member to refrain from certain behaviour. However although the comment clause was rated as being appropriately used e.g. "stop that!' or 'don't be mean," the individuals commenting did not elaborate on the consequences of the inappropriate statement or action, which would be expected of their age group. Wiig and Semel, (1984), suggest that children between eleven and thirteen years of age should be able to comment as well as give reason or justification for the comment.

3.4.5.4 Sarcasm / Humour

Humour was different across both groups, with the LILD group displaying humour associated with a younger age group. Sarcasm was not observed in both the formal and informal contexts.

3.4.5.5 Attention & Activity Level

The attention and activity levels of the non-LILD group were noticeably different from the LILD group. It is felt that these two areas have a significant impact on the contribution of each member to any communicative interaction. Although most of the LILD group appeared to be attentive, they displayed low levels of activity demonstrating inactive and passive behaviour. The scatter of activity levels could be a contributing factor to their participation or lack of contribution in the group situation. The non-LILD group were notably more active and interactive in both contexts.

3.4.6 NON-VERBAL BEHAVIOURS

In addition to the rules governing direct and indirect verbal speech acts, non-verbal communication also follows highly systematic formalities that differ across cultures and

age groups. Kinesics and proxemics are two forms of non-verbal conversation related to body movement and social distance respectively (Pellegrini and Moreau, 1995).

Foss (2001) emphasises the relationship between verbal and non-verbal communication stressing that the non-verbal act can express the same meaning as the verbal act. Non-verbal acts can anticipate future amplification of concurrent verbal communication. Furthermore non-verbal acts can emphasise global aspects of an interaction rather than specific aspects of the verbal act or can accent a specific part of the verbal act, as well as maintain and regulate the verbal act. Finally non-verbal acts can also fill or explain silences and convey meanings, which contradict the meaning of the verbal act.

Children with language disorders are reported to have as much difficulty in attaining the non-verbal rules of language as the verbal rules. The pragmatic ineptness of a child or adult can often be related to their non-verbal behaviour in spite of adequate verbal skills.

3.4.6.1 Vocal Aspects

Vocal aspects were noticeably different between groups. Although the subjects were matched for age, the non-LILD group had voices that appeared deeper and more mature than that of the LILD group. However the LILD subjects scored *appropriately* for areas of intensity, pitch and rate. Their overall score for quality was affected by the fact that 40% of this group scored *sometimes appropriate* with regard to intonation. The intonation of these subjects was nasal and contributed to the poor quality of their speech. Reed and McAllister (1995) compare this intonation to that of autistic children although they state that it is not nearly on the same end of the deviant spectrum.

3.4.6.2 Facial Expression

The facial expression of the non-LILD group corresponded simultaneously to their verbal speech acts. They were able to smile when they were engaging in humour, frown if they were unsure of something, and raise their eyebrows if the discussion became more

serious or was interesting. However the LILD group ratings indicate that their facial expression was not always indicative of the actual meaning of their speech acts. Even if the group were discussing something that was funny some members had permanent frowns on their faces. These results were not only when subjects were interacting with others but account for facial expression at rest as well. The LILD subjects with *inappropriate* facial expression either had 'blank' looks on their faces or contorted their faces at rest. This resulted in a "grimace" which normally indicates that the person is in some sort of physical discomfort which was not observed. These ratings of *inappropriate* production of facial expression correlates with the results from the TOPL where the LILD subjects had difficulty verbally expressing emotions.

Although not examined in this study, Wiig and Semel (1984) suggest that LILD individuals also have difficulty perceiving and interpreting the facial expression of others and therefore may seem "tactless" in certain situations. This results in LILD children making inappropriate social judgments and finding it difficult to adapt to unfamiliar social situations.

3.4.6.3 Physical Contact and Social Distance

Subjects involved in this study were allowed to choose their own seats and position the chairs as they wished in the peer discussion groups. The non-LILD group appeared to demonstrate appropriate social distance in their communicative interactions across a formal and informal context. However in the LILD group those individuals that were major contributors to the discussion always chose seats in the middle whereas the quieter, passive subjects chose to sit on the outskirts and generally faced away from the group. This was considered to be *inappropriate* social distance, as those subjects facing outward appeared to be indicating either nervousness or a desire not to participate in the discussion.

Smith and Leionen (1992) found right hemisphere impairment in LILD individuals linking this to deficits in body image, directionality in space and left-right orientation.

They indicate that this may lead to confused perceptual fields, inaccurate estimations of space and difficulties in maintaining territorial boundaries in social interactions. Therefore the LILD child may move inappropriately in space, misinterpret directional cues, bump into objects and people and break into closed groups.

3.4.6.4 Body Posture

The non-LILD group although relaxed during the group discussion did not display any evidence of poor body posture. While the use of a relaxed body posture is accepted amongst peers, the LILD subjects were observed to be 'too relaxed' within the informal situation. This was evident in slouching low in their chairs, leaning on their arms, stretching their legs out at an angle and resting their heads on the top edge of the chair.

However within the classroom the majority of the LILD group displayed *appropriate* body posture with specific subjects showing evidence of low tone by slouching in their chairs. This could be as a result of related postural and poor trunk control. In addition the improved classroom posture could be a direct result of the teacher reprimanding and coaxing children to maintain correct upright postures.

A final category of "rocking" was added to the APCA as it was noticed in the video-tape of the LILD group sessions. 27% of these subjects rocked either their bodies or their chairs in a group discussion. This appeared to be a sign of boredom or discomfort at being part of a conversation. The rocking observed was felt to be *inappropriate* in any circumstances. However in a structured environment rocking was absent.

3.4.6.5 Gesture & Pantomime

The subjects in the non-LILD group used gesture emphatically and *appropriately*. Although LILD children are reported to be inaccurate in their interpretation and use of gesture and pantomime (Smith and Leionen, 1992) those in the LILD group who did use these non-verbal forms of communication were rated *appropriate* in their use.

3.4.6.6 Foot, Arm and Leg Movement

While the majority of the LILD subjects had *appropriate* foot, arm and leg movement, those that displayed *inappropriate* foot, arm or leg movements, swung their feet or legs and flapped their arms either when talking or at rest. These movements were exacerbated when the subjects were excited.

Foot, arm and leg movement remained the same across both formal and informal contexts.

3.4.6.7 Eye Contact and Eye Gaze

Poor eye contact and eye gaze was noted within approximately 60% of the LILD subjects in a group discussion. These subjects often contributed to the conversation but were unable to look directly at another individual or alternatively maintained eye-contact for relatively short periods of time. Whereas the non-LILD group used *appropriate* eye contact as well as managed to shift eye contact, the LILD group tended not to acknowledge the speaker by making eye contact. However this was not an indication that they were not listening, as subjects would often comment irrespective of eye contact. In addition the LILD subjects in general only maintained eye contact with only one or two individuals in the group.

While subjects who were contributing to the discussion were unable to maintain or hold eye-contact, those that were inattentive were seen to be "gazing" at objects around the room or simply staring at the others for prolonged periods. The majority of the LILD subjects were *inappropriate* with regard to eye contact and eye gaze in the group situation. Conversely the non-LILD subjects displayed good eye contact and gaze.

Lavoie (1994) states that 94% of mutual gaze is initiated and terminated by children. This is a strategy employed by the child in order to prolong the attention paid to it by any communicator and may be accompanied by vocalisations. This trait appears to be lacking

in the LILD subjects as eye contact in a group situation was avoided by the majority of the group. This poor observance of eye contact and eye gaze could be directly linked to the LILD groups' perceived inability to utilize appropriate turn taking skills in an informal situation.

The ratings for eye contact and eye gaze scores of the LILD subjects showed slight improvement in the more formal classroom setting. The following table indicates the differences between ratings across these two contexts in terms of percentages:

Table 3.8 Comparison of the LILD Group Eye Contact and Eye Gaze Across a Formal and Informal Context: Expressed as Percentages of LILD Group

	Eye contact Formal	Eye Contact Informal	Eye Gaze Formal	Eye Gaze Informal
A	27	13	20	13
SA	53	27	33	20
I	20	60	47	67

3.5 SUMMARY OF FINDINGS

3.5.1 Test of Pragmatic Language (TOPL)

The TOPL revealed differences between the results of the LILD and non-LILD groups. The non-LILD group performed at an age-appropriate level in most aspects whereas the LILD subjects performed at an age expected of much younger children. The LILD subjects' average performance was approximately 3 years behind that of their peers.

Although some subjects' in the non-LILD group across scored poorly across specific questions, subjects in the LILD group scored consistently poorly across questions targeting a particular skill.

The areas of difficulty emerging from the LILD group in this study are listed in Table 3.9 below.

Table 3.9 LILD Areas of Weakness within the TOPL

Making inferences from limited given information
Being able to take the perspective of others
Making comparisons between objects
Expressing emotions
Sequencing Information
Informing / Describing

3.5.2 Adapted Profile of Communicative Appropriateness (APCA)

Table 3.10 highlights the LILD groups performance of pragmatic behaviours across contexts.

Table 3.10 Summary of LILD Pragmatic Behaviours Across Contexts

		Informal	Formal
Response to	Request	✗	✓
Interlocutor	Reply	✗	✓
	Clarification Request	✗	✗
	Acknowledgement	✗	✓
	Turn Taking	✗	✓
Control of	Topic Information	✗	✓
Semantic Content	Topic Adherence	✗	✓
	Topic Shift	✗	✗
	Lexical Choice	✓	✓
	Idea Completion	✗	✗
	Idea Sequencing	✗	✗
	Other: Topic Selection	✗	✗
Cohesion	Tense Use	✓	✓
	Reference	✓	✓
	Lexical Substitute Forms	✓	✓
	Relative Clause	✗	✗
	Prenominal Adjectives	✗	✗
	Conjunctions	✗	✗
Fluency	Interjections	✓	✓
	Repetitions	✓	✓
	Incomplete Phrases	✓	✓
	False Starts	✓	✓
	Pauses	✓	✓
	Word Finding Difficulties	✓	✓
Sociolinguistic	Polite Forms	✗	✓
Sensitivity	Reference to Interlocutor	✗	✓
	Placeholders, Fillers, Stereotypes	✓	✓
	Acknowledgements	✗	✗
	Self Correction	✗	✓
	Comment Clauses	✗	✓
	Sarcasm / Humour	✗	✗
	Control of Direct Speech Acts	✓	✓
	Indirect Speech Acts	✓	✓
	Other:-Obsession Compulsion	✓	✓
	-Echolalia (+delayed)	✓	✓
	- Splinter Skills (Accents)	✓	✓
	- Attention	✗	✗
	- Activity Level	✗	✗
Non - Verbal	Vocal Aspects: - Intensity	✓	✓
Communication	- Pitch	✓	✓
	- Rate	✓	✓
	- Intonation	✓	✓
	- Quality	✓	✓
	Non-verbal: - Facial Expression	✗	✗
	Aspects:-Head Movements	✓	✓
	- Body Posture	✗	✓
	- Breathing	✓	✓
	- Social Distance	✗	✓
	- Gesture	✗	✗
	- Pantomime	✓	✓
	Other:-Foot, Arm, Leg Movement	✗	✓
	- Eye Contact	✗	✗
	- Eye Gaze	✗	✗
	- Physical Contact	✗	✓
	- Rocking	✗	✓

The APCA provided detailed information of the LILD groups pragmatic abilities across several categories. The LILD subjects appeared to present with deficits in their responses to the interlocutor in the areas of requesting, replying, clarifying and acknowledging information given. The ability to turn-take was also an area that proved especially difficult for LILD subjects in an informal context. However these skills improved considerably in the formal setting of the classroom.

Difficulties in the control of semantic content which included topic information, adherence, shift and selection as well as idea completion and sequencing emerges as a particularly important aspect of the LILD groups communicative behaviour. These variables are central to any communicative situation and the lack of skill in these areas can lead to listener confusion and conversational breakdown. Although these skills improved in the presence of an adult facilitator, they were still impaired in comparison to the non-LILD group.

One of the few strengths that the LILD subjects possessed is their fluency skills which were consistent across both contexts. The researcher suggests that these areas of fluency may have been a focus in previous therapy and therefore could have been either remediated or compensated for. Although some aspects of cohesion (tense use, referencing) were appropriate across test settings, those that were inappropriate (lack of relative clause use and conjunctions), highlight this as a further area of difficulty for LILD children. There were no apparent difference between LILD subjects' cohesion and fluency across informal and formal settings.

Areas of sociolinguistic sensitivity within the LILD group that were rated inappropriate in the informal setting improved within a formal environment. These included polite forms and comment clauses. Domains that were appropriately absent included obsessions, compulsions, echolalia and splinter skills. However areas such as attention and activity remain problematic across formal and informal settings, with the LILD group showing signs of being inactive and passive communicative participants.

The vocal aspects of the LILD group were all appropriate except for the nasal intonation of some of the subjects, which affected their overall speech quality. Other non-verbal aspects, which the LILD subjects performed poorly on, included facial expression, body posture, foot, arm, and leg movement as well as rocking. Two further aspects of non-verbal communication, namely eye contact and eye gaze posed particular problems for the LILD group across contexts. They appeared to avoid eye contact and rather preferred to gaze at inanimate objects within the room. Except for rocking which was absent in the formal context most non-verbal aspects showed little change across contexts. This breakdown in non-verbal communication is crucial as communicative partners often take their cues sub-consciously from body language and vocal characteristics (Spence and Hutchings, LDOnline, 2002).

As the LILD subjects attended an ELSEN school for children with learning disabilities, the researcher felt that they would be more tolerant and accepting of differences in others. However the usual antics of teasing, isolating and humiliating others who are not part of a specific social group were present despite of being in an " adaptive" environment. Landau and Moore (1991) mention that adolescents with learning disabilities often try to be part of the 'in-crowd' and therefore resort to forming social groups that ostracise others who are perceived as different. This is done in order to try and boost their own low self-esteem.

Landau and Moore (1991) state that learning disabled children with and without attention deficits would benefit most from a small group setting with a routine structured academic and discipline programme. The results of this study support the notion that LD individuals require structure in order to function as effective communicators. Subjects who performed poorly in the informal setting were rated as being appropriate for the same behaviours in the formal setting with an adult facilitator present. While this variable impacted on most areas of pragmatic ability major differences were observed with regard to polite forms, topic maintenance and shift, turn taking, and eye contact. Therefore the findings from this study highlight the need for structure and concrete programmes in order for learning disabled children to realise their true potential in an academic

environment. Furthermore these individuals require constant re-direction and instruction from an adult facilitator, as they are unable to verbalise their confusion or misunderstanding.

3.5.3 Comparison between TOPL and APCA

The LILD and non-LILD groups showed differences in pragmatic competence and performance across assessment methods.

A major finding of this study related to the TOPL and APCA, was the indication that the LILD group appeared to have some knowledge of pragmatic rules. However they appeared to show a distinct discrepancy in applying or performing these rules across contexts, whereas the non-LILD group appeared to have knowledge as well as the ability to apply pragmatic rules across both a formal and informal context. In the majority of aspects the LILD subjects' performed at a level expected of much younger children denoting apparent delays and deficits in the acquisition and use of pragmatic skills.

In addition there were several areas of pragmatic knowledge and performance within the LILD group, that appeared to be consistently poor across both the TOPL and the APCA. These included the ability to express emotions or request clarification. However with regard to polite forms, requesting assistance or action and informing others of feelings major discrepancies were noted between the TOPL and APCA results. Subjects who were able to provide correct answers in the presented TOPL scenario showed no evidence of carrying out these responses in the formal or informal context. This indeed may indicate an ability of the LILD subjects to acknowledge that pragmatic rules exist across contexts, but may suggest an inability to assimilate these rules and apply them appropriately when required.

Table 3.11 highlights the similarities and differences obtained within the LILD group across the standardised test and the profile.

Table 3.11 LILD Group Differences Across TOPL and APCA

	TOPL	APCA - INFORMAL	APCA – FORMAL
Requesting Clarification	✗	✗	✓
Making Inferences	✗	-	-
Describing / Informing	✗	✗	✓
Sequencing	✗	✗	✗
Polite Forms	✓	✗	✓
Requesting	✓	✗	✗
Expressing Emotions	✗	✗	✗
Fluency	✓	✓	✓
Sociolinguistic Sensitivity	✓	✗	✓

Table 3.11 highlights the areas of difficulty apparent in the formal and informal setting as rated on the APCA as well as with regard to the standardised test. This includes the LILD groups' inability to sequence ideas and information, and express their emotions appropriately. Aspects related to requests, polite forms and sociolinguistic sensitivity were initially appropriate in the TOPL test indicating an ability to acknowledge that pragmatic norms exist in certain contexts. However these rules were not adhered to or applied in the informal setting with peers. A shift to being appropriate one again was evident in a formal class environment with an adult facilitator present. Areas of pragmatic competence which were inappropriate in both the TOPL and the informal context, such as requesting clarification, describing and informing, were also positively influenced by the effect of a teacher and the implemented structure of a classroom. These areas were rated as appropriate in a formal setting.

4. GENERAL DISCUSSION, CONCLUSION AND IMPLICATIONS

4.1 GENERAL DISCUSSION

4.1.1 Pragmatic Deficits in Language-Impaired Learning Disabled Pre-Early Adolescents

As mentioned in Section Three the findings in this study revealed deficits in the LILD subjects performance of pragmatic behaviours. The LILD subjects displayed inappropriate pragmatic behaviour in several domains in comparison to same age controls. This supports previous research undertaken in this field, which indicates that differences do exist in the pragmatic domain between those children with learning disabilities and those without (Dudley-Marling, 1985; Lapadat, 1991; Skoensen et al, 1981).

The LILD subjects in the present study were perceived as being passive, inattentive participants in the informal setting with peers. Previous findings within this field reveal that while children with learning disabilities appear to be generally similar to non-learning disabled children with regard to having the *ability* to produce the same type of utterances in a conversation, they apparently *apply* this range of utterances less consistently, appropriately and flexibly across interactions (Feagans, 1983). Mathinos (1991) indicates that LD children do not exhibit an appreciation of the importance of strategies that productively and comfortably maintain a conversation. Instead they appear to be only minimally connected to or engaged in these interactions.

The results of this study support previous research and literature, which have reported the presence of pragmatic disorders in older LILD children. Wiig and Semel (1984) agree that language disorders definitely change over time and frequently manifest themselves in later school years. Common symptomatic changes reported amongst older children reflect difficulties in semantic, syntactic and pragmatic components of study (Bryan, 1991). The findings reported in this study further support Schoenbrodt, Kumin and Sloan, (1997)

who maintain that as the boundaries of communication disorders and learning disabilities overlap, it is necessary to observe the effect of one on the other at different times throughout a child's life cycle as there is indication of an age-continuum effect depending on the needs of the child's environment.

Related to this continuum effect, Donahue, Pearl and Bryan, (1981) confirm that older LILD children do not appear to outgrow their deficits in comprehending and using syntactic and semantic structures. Therefore as the child becomes older these deficits may impair the learning of slang and idiomatic expressions which may interfere with the interpretation of jokes and sarcasm and pragmatic skills in general.

Conversational breakdown was observed in this study as a result of poor pragmatic performance. Control of semantic content appeared to contribute to the inappropriate pragmatics observed among LILD subjects. This was due to their inability to initiate appropriate, relevant topics, maintain a topic and sequence or complete ideas. In addition this initial breakdown in conversational interaction may be related to the subjects' subsequent failure to use appropriate clarification and repair strategies.

Further observations and rating of the pragmatic behaviour of LILD subjects in the current study revealed their inability to make inferences in the TOPL test, and repair conversational breakdown in the informal discussion. This is proposed to be as a result of being unable to perceive the need to clarify, request or specify topics or content due to their inability to take the perspective of others as previously noted. Similarly Damico (1990) mentions that children with pragmatic incompetence frequently present with pragmatic deficits that influence their coherence of discourse. This results in fragmented, tangential and often irrelevant discourse.

Numerous theoretical underpinnings have been previously documented in the literature as possible explanations for pragmatic deficits.

Pragmatic perception and competence is suggested by Penn (1993) to consist of three types of knowledge, which are all a prerequisite for appropriate communicative interactions to occur. The first of these is knowledge of language and its structure, the second knowledge of the world, objects, events and actions within that world, and the third is social knowledge or the rules governing conversation and the behaviour of a speaker in society.

The language-impaired learning disabled children in this study were found to present with semantic deficits. Smith and Leionen (1992) indicate that semantic problems may entail pragmatic problems, as one's productive options would be limited. A child with an inadequate vocabulary and ***knowledge of language structure*** will be ineffective in expressing ideas or emotions as well as informing others of events and occurrences. Bearing these factors in mind, the LILD pre-adolescents performance in this study appear to support the notion that *language* deficiency manifests in *pragmatic* deficits over time.

Limited world knowledge will limit the ability to be an active contributor in a communicative interaction. In the current study the LILD subjects' were not perceived as being interactive communicators specifically due to their limited ability to initiate and maintain topics. In comparison the non-LILD subjects appeared to be 'more worldly' in their ability to incorporate events and occurrences in their immediate environments in a lengthy discussion, which added to their pragmatic competence and performance.

Carrow-Woolfolk (1988) stresses the importance of observation and perception in LILD individuals' development and knowledge of the world around them, as the development of pragmatic rules is influenced by the frequency and extent of the situational opportunities for observation. This implies that if a child does not observe the appropriate use of language in appropriate situations, that child will have no basis for world knowledge or pragmatic rules.

A factor related to observation is the child's perception, which impacts on abstract ability. If a child does not perceive variables as important occurrences in his / her environment,

he or she will not remember these variables for later abstract use. The subjects in the current study may have exhibited poor pragmatic behaviour due to lack of observation and perception, specifically in their inability to make inferences or take the perspective of others, which are both abstract tasks (Carrow-Woolfolk, 1988). These results support the statement by Spafford and Grosser (1993) who state that individuals with learning disability have difficulty in perceiving and interpreting social cues and therefore frequently violate rules.

Carlyon (1997) links ***social competency*** to an inhibition in a complex series of factors which vary from person to person and are characterized by a lack of linguistic sophistication including vocabulary, the inability to accurately interpret non-verbal social cues such as body language and posture and finally the incapacity to understand jokes and sarcasm especially when slight vocal changes such as inflection influences or changes the meaning.

Related to Carlyon's (1997) description of social competence, Carrow-Woolfolk (1988) mentions the combining of verbal and non-verbal behaviour. Frequently the child with pragmatic incompetence not only has difficulty assimilating the necessary rules of appropriate language use from observation, but also has difficulty knowing the behaviours corresponding to this language. Examples mentioned are shaking hands when being introduced to someone or maintaining eye contact when speaking. (Silver, 2001).The non-verbal behaviour observed of the LILD subjects in this study were found to be most affected by their poor eye contact and eye gaze.

Larson and McKinley (1998) propose that learning disabled individuals are unable to utilise social cognitive problem solving strategies and link this to the reason for delinquency in LILD children. Examples of social cognitive problem solving are provided regarding interpreting the mood of others, taking the perspective of others, understanding social interactions and predicting and evaluating social consequences. Prizant and Meyer (1993) reviewed recent research that highlights the high prevalence of

communicative disorders in children who have been referred to health professionals for emotional and behavioural disorders.

Poor self-monitoring is also suggested as one of the underlying factors in the LILD pre-early adolescents failure to be pragmatically appropriate. Gresham (1981) calls this a 'self-control deficit,' which invariably leads to poor communicative interactions. Lapadat (1991) relates this to the motivation of the LD child with regard to social interaction. A history of communicative failure is implied which then results in the individual using less effective communicative strategies in future. This may be the reason for the LILD individual taking a passive role in conversations or failing to give feedback to others to indicate their wish for the communicative act to continue.

Spafford and Grosser (1993) add that self-concept in adolescents is also intimately linked to social competency. The subjects in their study with low self-esteem were less inclined to use communicative initiators and externalised the responsibility for their social failures by blaming others. This learned helplessness was also suggested to result in poor social relationships with both peers and adults and leads to a cycle of inter-personal failure and low self-esteem. Although the subjects in this study were not rated in terms of social concept or self-esteem, they were observed to be nervous, hesitant communicative partners who seemed unsure of their roles in a group.

An alternative explanation for LILD pre-early adolescents' pattern of poor pragmatic ability is suggested by the researcher to develop and persist due to the limited opportunities to observe and practise appropriate pragmatic skills in interaction with non-disabled peers.

The impact of negative communicative interactions may have an effect on other areas of a child's social or academic development. Children who are able to vary the degree of politeness required by using numerous strategies to indicate communicative competence are less likely to be considered behavioural or conduct problems by their teachers. Lapadat (1991) concluded after her study that students with behaviour disorders should

be considered at risk for potential language problems and that pragmatic skills should be part of their evaluation.

Silver (2001) adds that problems with auditory discrimination, attention and speed of language processing can also add to the learning disabled adolescent's frustration and misperception. These additional factors can generate situations where social failure is predictable and inevitable. All of the above-mentioned factors may have contributed to the poor pragmatic performance of the LILD group.

4.1.2 Assessment and Intervention

Before the issue of assessment and intervention is discussed, it is important to revisit the issues that affect these parameters within the field of research. Firstly the term "pragmatics' and all that it encompasses remains an undefined and relatively unmanaged area in the speech-language pathology field. Furthermore the ongoing process of defining and identifying learning disabilities often poses particular challenges to researchers within the field (CLD Research Committee, 1993). The CLD Committee (1993) suggest that the most effective way in which the researcher can deal with the heterogeneity of the learning disabled population is by constructing a meaningful methodology which clearly describes the participants and the outcome of the research. This may not be able to account for all the variables involved in this particular field of research but the CLD Committee (1993) hope that this will allow readers to assimilate new information with as much factual data as possible.

The variables mentioned above affect this research project and others in determining the most valuable method of assessment. Duchan (2000) states that speech-language pathologist have been designing approaches for evaluating children's social interaction and participation for years. Most assessment batteries have a section that measures communicative competence (e.g. sounds, words, morphology, syntax and semantics) and another section measuring social competence (pragmatics). However Duchan (2000) quotes Mead (1962) who emphasised the need to merge these aspects of communication

in order to comprehensively assess communicative pragmatic functioning. Duchan (2000) stresses that assessment approaches should view communication as based in social interaction rather than seeing communication and social domains as separate entities.

While current views of assessment have evolved to adopt this view of pragmatic functioning the controversy over the best assessment method continues to be a debatable issue. In order to obtain both an individual profile of each subjects' strengths and weaknesses as well as to compare scores between LILD and non-LILD groups, the standardised TOPL test was administered. However in keeping with Penn's (1999) and Duchan's (2000) call for a more naturalistic method of observation across social situations, the APCA was used across both a formal and informal context.

Context influences the form that language takes in both comprehension and performance. This relates to both internal and external factors pertaining to an individual and the influence this has on their communicative utterances (Wiig and Semel, 1984). Carrow-Woolfolk (1988) mentions the environmental or social context as being social and situational and lists shared intentions, the role of the participants, the people present and their interpersonal relationships and the presuppositions brought to the communication as being influential on comprehension and performance. Situational factors are the time and place related to the actual communication act as well as the events that occurred prior to the act. The form of communication is influenced by the cognitive and chronological level of the individuals (Pellegrini and Moreau, 1995). Each individual has a uniqueness in style and performance which is integrated into their personalities, intelligence and previous social experience.

As children we learn rules which govern the use of our language for specific functions. Most children assimilate these rules through observation, repetition and practise in daily routines. These rules are highly conventional and learned by the child without any official instruction. Carrow-Woolfolk (1988) stresses that children learn the changing roles of speakers and listeners, the mutual sharing of information and linguistic and non-linguistic

cues that signal listener co-operation such as utterance length, topic initiation and maintenance at a very early age.

The present study attempted to examine LILD pre-early adolescents' assimilation of these rules and their application across formal and informal contexts. The results were interesting in that behaviours that were absent or inappropriate in an informal setting appeared or changed to appropriate in a formal context, with the presence of an adult facilitator.

Considering the use of a standardised test (TOPL, 1992) and a pragmatic profile (APCA, 1988) in this study, the researcher maintains that both methods of assessment are necessary and informative in order to assess a child's knowledge as well as performance of pragmatic behaviours. The standardised test provided the opportunity to evaluate subjects' knowledge of pragmatic rules by presenting various contexts of communicative interaction, while the use of the profile allowed the researcher to observe the performance (carrying out) of these supposedly learnt rules across two different contexts.

Within the context of this particular study the administration of only the TOPL test would have yielded inadequate descriptions of LILD subjects' pragmatic performance. Although the test appeared to have face value, the nature of pragmatic deficits does not allow a single tester to allocate a nominal score to a child's pragmatic functioning. In addition the standardised test is not based on actual social interaction as Duchan stipulates (2000). Furthermore the standardised test does not allow for the observation and recording of non-verbal behaviours, which are believed to be an integral component in pragmatic performance.

Conversely, the use of a profile in isolation would not necessarily have tapped the various contexts mentioned in the standardised test. Furthermore a limited reflection of the child's knowledge of the rules, irrespective of application, would have been obtained. Therefore the researcher suggests that while the knowledge of pragmatic rules are present

in LILD subjects as evident in the TOPL (1992), it is the use and application of these rules that manifests in pragmatic deficits as observed in the formal and informal contexts.

As this study presented both aspects of assessment the researcher attempted to offer a detailed view of the learning-disabled individuals pragmatic competence in terms of both knowledge and performance. In light of the findings obtained the researchers suggests in-depth evaluation techniques be employed in future in order to provide rich descriptive information of LILD individuals pragmatic competence and pragmatic performance.

Context bound communication raises the issue of what is considered appropriate or inappropriate for that particular context. Smith and Leionen (1992) delve into this area of appropriateness versus inappropriateness. While they state that most cultures have relatively similar norms of acceptable communicative behaviour, there is also the development of sub-cultures within these communities who redefine and test the boundaries of pragmatic functioning. Bishop and Adams (1989) however disagree and state that "not anything goes." They feel that those who deviate grossly and visibly from the general norms are often categorized as 'odd ' and difficult to communicate with. Bishop and Adams (1989) add that part of an individuals communicative competence is the ability to judge behaviours as appropriate and inappropriate within the confines of the norms of one's culture and furthermore to be able to communicate oneself within these norms. Finally it is necessary to be able to make the choice as to whether one wants to perform inappropriate behaviour e.g. swearing which some consider as an output of expression and others feel is 'negative' behaviour. Given these fine distinctions and judgement calls those individuals with learning disability often fall into a spectrum of categories of appropriateness and inappropriateness. The researcher feels that this may be due firstly to society's varying perceptions of pragmatic competence and secondly to the learning disabled individuals own inability to self-monitor their own behaviour.

Considering the specific areas of deficiency reported in the realm of pragmatics within pre-early LILD adolescents in this study, the researcher holds that the management of this population is a contentious issue. Unfortunately pragmatic instruction is rarely

implemented in today's schools, where the emphasis is placed on academic skills and language content. In addition clinicians lack of information regarding both methods of assessment and intervention within the pragmatic of communication is limited. Therefore although the theoretical aspects of pragmatic behaviours in various populations has been considered previously, the management of this issue is still a relatively unexplored area.

Smith (1998) strongly advocates the necessity to identify and remediate ineffective, deficient pragmatic behaviours as early as possible. Gresham and Elliot (1989) suggest that the first task in implementing an intervention programme within the pragmatic sphere is to differentiate between issues of skills acquisition and skill performance. Social *performance* deficits represent the presence of the social skills in an individuals repetoire but the inability to perform these skills at acceptable levels in given contexts (Roth & Spekman, 1984). In the case of social skills *acquisition*, individual behaviours must be taught, rehearsed and internalised before the subject is expected to integrate the skill into communicative acts. Alternatively performance deficits require close analysis of the factors which inhibit the utilisation of a developed skill. Both skills need to be carefully integrated into classroom instructional atmospheres and practiced under supervision.

Once these skills have been taught, the LILD children need to be able to generalise the rules between and across situations. In order to achieve successful intervention procedures the subjects need to be instructed in an environment and manner that is supportive and positive in nature. Complex combinations of social behaviours can be mastered and applied to natural contexts, through the use of structured instructional sequences. If the child is not reinforced appropriately social skills deficits will continue into adulthood. Therefore it is imperative that remediation be realigned to begin earlier in the LILD child's life in order to avoid the carry over of inapt pragmatic behaviours into adolescence and adulthood.

Social skills performance and generalisation are attainable goals that are dependent on the environmental training techniques and the motivation of the LILD adolescent. Therefore training should focus on development of positive self-esteem as well as pragmatics.

Research and observation by Lavoie (1994) states that some learning disabled individuals have attained a degree of pragmatic competence that is equal to and superior to their peers. Further literature on intervention suggests that despite the suggested enormity of social inadequacies, learning disabled individuals can acquire pragmatically appropriate behaviours in a similar fashion to syntactic, semantic and linguistic skills, if they are provided with the correct manner, method and environment to progress (Dobrowski, 2001; McTear, 1985; Chiat, Law and Marshall, 1997).

4.2 CONCLUSION

In conclusion, this study set out to examine the pragmatic behaviours of LILD pre-early adolescents in comparison to non-LILD adolescents. In order to examine and document these behaviours multiple assessment tools were employed. The examination of pragmatics was accomplished through the use of a communicative rating profile that was administered across a formal and an informal context. A standardised test was also administered individually to each subject.

This preliminary study was descriptive, qualitative and comparative in nature and the main findings revealed that LILD pre-early adolescents presented with impaired pragmatics across all the parameters of the profile, except fluency. The inappropriate pragmatic performance of the LILD group identified using the profile, was more notable in an informal context with peers. This is thought to be due to the lack of structure and the absence of an adult facilitator, which these children appear to require. The underlying skills felt to affect the pragmatics of LILD adolescents relates to the *application* of pragmatic rules, poor self-monitoring, inability to take the perspective of others, poor interactive communication, poor non-verbal perception and behaviour as well as the inability to use language emotively, persuasively and descriptively. In addition these subjects appeared to lack sufficient linguistic, social and world knowledge, which are considered essential components to be effective appropriate communicators.

A need for multiple assessment tools was indicated. The use of the standardised test allowed for normative data, a score, and an indication of LILD subjects' strengths and weaknesses. Furthermore it provided an indication of the LILD and non-LILD subjects' knowledge of pragmatic competence.

However the test was conducted in an unnatural, contrived setting and although it assessed knowledge or competence of pragmatic rules, it did not evaluate application or pragmatic performance.

Although the LILD subjects performed well on certain areas in the standardised test, failure to apply these behaviours in a more natural setting was observed. This emphasised the notion that pragmatics cannot be solely assessed in a contrived unnatural setting as the nature of pragmatics in essence includes the application and use of language in various contexts, which one again highlights distinctions between skills acquisition and performance. Therefore the added assessment tool of the pragmatic profile allowed for a rich evaluation of pragmatic performance.

Although the use of profiles is often criticised for lack of normalisation and standardisation, the researcher believes that the use of multiple raters allowed for acceptable levels of reliability to be achieved. Furthermore as rating scales can be used across all populations or age groups and are not culture specific, their purpose and use is increased. Including the use of a profile, which taps all areas of communication in a more natural, interactive setting allowed for the opportunity to examine the application of supposedly learnt pragmatic behaviours across numerous parameters. In addition the use of *appropriacy* in the rating scale was found to be useful in that behaviour employed were not specifically defined as 'right' or 'wrong.' Furthermore the profile is considered to be easy to administer and can be completed without transcriptions which are time consuming. Therefore it is felt to be an appropriate tool to use in daily clinical practice where time is limited.

Aside from the issue of assessment, few past studies in the field of learning disabilities or more specifically pragmatics, have addressed issues across contexts or within the critical time of adolescence. Children who have not developed a flexible language system upon entering adolescence remain context bound and reliant on structure for them to be able to use language adequately. Hence it is imperative to observe and record the pragmatic behaviour of these children across contexts.

This study differed from past research in that it incorporated both means of assessment as well as different settings. To the best of the researcher's knowledge this has not been conducted previously. The use of the both methods of assessment proved to be useful as

both pragmatic knowledge and performance were evaluated. The results of this study are considered to be a positive indication for intervention and management of pre-early adolescents' pragmatic behaviour. As subjects appeared to have an underlying knowledge of some pragmatic rules, clinicians could use this as a basis to remediate the application or performance of these behaviours.

Due to the scope and design of the study numerous aspects could not be considered, such as gender differences, pragmatic behaviour beyond the school environment, interaction across age groups and cultures. Considering that pragmatics embraces social, linguistic and world knowledge as well as being affected by multiple interlocutors and settings, a representative or comprehensive evaluation of pragmatic behaviours requires acknowledgement and recognition of these above-mentioned aspects. Clearly these aspects are critical in clinical work and in future research.

4.3 IMPLICATIONS

Numerous theoretical, clinical and future research implications emerged from this study.

4.3.1 Theoretical Implications

- Within the field of learning disabilities the need for assessment procedures and intervention in the pragmatic sphere is acknowledged. The recent focus on pragmatics has left clinical intervention lagging behind the theory and research. This is suggested to be as a result of clinicians not being confident or informed of methods of assessment and intervention, therefore they do not implement formal pragmatic remediation in daily practice.

- Hopefully this study may contribute towards proposing future methods of multiple assessment tools.

- The assessment and pragmatic behaviour of LILD adolescents in comparison to peers as well as across contexts is enhanced.

4.3.2 Future Research Implications

Various future research implications emerged from this study. As pragmatic deficits have been found to exist in the pre-early adolescent LILD population, the researcher advocates that future research be carried out in this field in order to gain further insight into this complex sphere of communication.

- Considering the change of focus from form and structure to use of language, as well as the age-continuum effect mentioned previously, more longitudinal studies regarding LD and pragmatics should be conducted.

- Studies specifically related to methods of intervention are necessary in order to determine the best methods of intervention. This is both to address issues regarding individual or group remediation as well as to inform clinicians of availability and success of pragmatic intervention.

- Research documenting pragmatic behaviour across multiple communicative contexts is necessary in order to determine the nature and extent of pragmatic deficits in various communicative settings.

- Research comparing the LILD adolescent population to other same age populations could highlight further strengths and weaknesses.

- The role of a multi-disciplinary team in conducting both assessment and intervention in the pragmatic domain must be considered. The researcher believes that occupational therapists, psychologists and teachers would make invaluable contributions to assessment, intervention and carryover of pragmatic competence. All of the above mentioned professionals would be invaluable in providing information

pertaining to the rating profile as well as within their own disciplines regarding the pragmatic behaviour of an individual.

- Finally further studies in LD pragmatics incorporating gender, age and culture are needed in order to determine the extent and effect of these variables on an individuals pragmatic ability.

4.3.3 Clinical Implications

- The findings of this study clearly indicate a discrepancy between LILD subjects' knowledge of pragmatic rules and their application of these rules in their communicative interactions. Their knowledge appeared to be much better than their performance indicated. The results of this study are therefore perceived as a positive indication with regard to the intervention and management of this population. Instead of focusing on 'teaching' knowledge of pragmatic rules, clinicians can focus on the application and appropriate performance of these rules across contexts.

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APPENDIX A

Division of Communication Sciences and Disorders
University of Cape Town
Cape Town
8000

Dear Parents,

REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I am currently undertaking my MSc. in Speech-Language Pathology at the University of Cape Town. For my dissertation I have chosen to study the field of PRAGMATICS which involves study the use of language in different contexts. At present I require 14 subjects who should be between 11 and 14 years of age.

The assessments that need to be conducted will be during school hours with minimal disruption to the subjects' academic programmes. The assessment consists of:

- Video-taping the chosen subjects in one of their class lessons
- Video-taping 4/5 subjects at a time, in a discussion group
- A 20 minute Standardised Test

All information obtained will be confidential. However upon completion of the study the results will be made available to both the school and parents.

I hope that you will be able to assist me in my study by allowing your son to be a part of this research process. If you have any queries or questions concerning this study, please do not hesitate to contact me.

Yours sincerely,

MS. S.NAIDOO (Speech Therapist and Audiologist)

REPLY SLIP FOR RESEARCH: Please return to your son's class teacher as soon as possible.

I _____, parent / guardian of _____ in Grade ____

at _____ School, **DO / DO NOT** give permission for my son to be involved in your study.

I am aware of all the components of this study (standardised test, video-taping in the class and with friends).

_____ _____

SIGNATURE DATE

CONTACT TELEPHONE NUMBERS: 083-235 3734 / 6852240

APPENDIX B – SUBJECT ONE
EXAMPLES OF LILD RATINGS ACROSS A FORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request			✓✓✓	
	Reply		✓✓	✓✓	
	Clarification Request			✓✓✓	
	Acknowledgement			✓✓✓	
	Turn Taking			✓✓✓	
Control of Semantic Content	Topic Information			✓✓✓	
	Topic Adherence			✓✓✓	
	Topic Shift			✓✓✓	
	Lexical Choice			✓✓✓	
	Idea Completion			✓✓✓	
	Idea Sequencing			✓✓✓	
	Other: Topic Selection			✓✓✓	
Cohesion	Tense Use			✓✓✓	
	Reference			✓✓✓	
	Lexical Substitute Forms			✓✓✓	
	Relative Clause			✓✓✓	
	Pronominal Adjectives			✓✓✓	
	Conjunctions			✓✓✓	
Fluency	Interjections			✓✓✓	
	Repetitions			✓✓✓	
	Incomplete Phrases			✓✓✓	
	False Starts			✓✓✓	
	Pauses			✓✓✓	
	Word Finding Difficulties			✓✓✓	
Sociolinguistic Sensitivity	Polite Forms		✓	✓✓	
	Reference to Interlocutor		✓	✓✓	
	Placeholders, Fillers, Stereotypes			✓✓✓	
	Acknowledgements		✓	✓✓	
	Self Correction			✓✓✓	
	Comment Clauses		✓✓✓		
	Sarcasm / Humour		✓✓✓		
	Control of Direct Speech Acts			✓✓✓	
	Indirect Speech Acts			✓✓✓	
	Other:-Obsession Compulsion			✓✓✓	
	-Echolalia (+delayed)			✓✓✓	
	- Splinter Skills (Accents)			✓✓✓	
	- Attention		✓	✓✓	
	- Activity Level			✓✓✓	
Non-Verbal Communication	Vocal Aspects: - Intensity			✓✓✓	
	- Pitch			✓✓✓	
	- Rate			✓✓✓	
	- Intonation	✓✓✓			
	- Quality	✓✓✓			
	Non-verbal: - Facial Expression			✓✓✓	
	Aspects:-Head Movements			✓✓✓	
	- Body Posture		✓✓✓		
	- Breathing			✓✓✓	
	- Social Distance			✓✓✓	
	- Gesture			✓✓✓	
	- Pantomime			✓✓✓	
	Other:-Foot, Arm, Leg Movement			✓✓✓	
	- Eye Contact			✓✓✓	
	- Eye Gaze			✓✓✓	
	- Physical Contact			✓✓✓	
	- Rocking			✓✓✓	

APPENDIX B – SUBJECT TWO
EXAMPLES OF LILD RATINGS ACROSS A FORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request			✓✓✓	
	Reply			✓✓✓	
	Clarification Request			✓✓✓	
	Acknowledgement			✓✓✓	
	Turn Taking			✓✓✓	
Control of Semantic Content	Topic Information			✓✓✓	
	Topic Adherence			✓✓✓	
	Topic Shift	✓	✓✓		
	Lexical Choice			✓✓	
	Idea Completion			✓✓✓	
	Idea Sequencing		✓✓	✓	
	Other: Topic Selection		✓✓✓		
Cohesion	Tense Use			✓✓✓	
	Reference			✓✓✓	
	Lexical Substitute Forms			✓✓	
	Relative Clause		✓✓✓		
	Pronominal Adjectives		✓✓✓		
	Conjunctions		✓✓✓		
Fluency	Interjections			✓✓✓	
	Repetitions			✓✓✓	
	Incomplete Phrases			✓✓✓	
	False Starts			✓✓✓	
	Pauses			✓✓✓	
	Word Finding Difficulties			✓✓✓	
Sociolinguistic Sensitivity	Polite Forms			✓✓✓	
	Reference to Interlocutor			✓✓✓	
	Placeholders, Fillers, Stereotypes			✓✓✓	
	Acknowledgements			✓✓✓	
	Self Correction			✓✓✓	
	Comment Clauses			✓✓✓	
	Sarcasm / Humour		✓✓	✓	
	Control of Direct Speech Acts			✓✓✓	
	Indirect Speech Acts			✓✓✓	
	Other:-Obsession Compulsion			✓✓✓	
	-Echolalia (+delayed)			✓✓✓	
	- Splinter Skills (Accents)			✓✓✓	
	- Attention		✓✓✓		
	- Activity Level		✓✓✓		
Non-Verbal Communication	Vocal Aspects: - Intensity			✓✓✓	
	- Pitch			✓✓✓	
	- Rate			✓✓✓	
	- Intonation		✓✓✓	✓	
	- Quality			✓✓✓	
	Non-verbal: - Facial Expression			✓✓✓	
	Aspects:-Head Movements			✓✓✓	
	- Body Posture			✓✓✓	
	- Breathing			✓✓✓	
	- Social Distance			✓✓✓	
	- Gesture			✓✓✓	
	- Pantomime			✓✓✓	
	Other:-Foot, Arm, Leg Movement	✓	✓✓		
	- Eye Contact			✓✓✓	
	- Eye Gaze			✓✓✓	
	- Physical Contact			✓✓✓	
	- Rocking			✓✓✓	

APPENDIX B – SUBJECT THREE
EXAMPLES OF NON-LILD RATINGS ACROSS A FORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request				
	Reply				
	Clarification Request				
	Acknowledgement				
	Turn Taking				
Control of Semantic Content	Topic Information				
	Topic Adherence				
	Topic Shift				
	Lexical Choice				
	Idea Completion				
	Idea Sequencing				
	Other: Topic Selection				
Cohesion	Tense Use				
	Reference				
	Lexical Substitute Forms				
	Relative Clause				
	Pronominal Adjectives				
	Conjunctions				
Fluency	Interjections				
	Repetitions				
	Incomplete Phrases				
	False Starts				
	Pauses				
	Word Finding Difficulties				
Sociolinguistic Sensitivity	Polite Forms				
	Reference to Interlocutor				
	Placeholders, Fillers, Stereotypes				
	Acknowledgements				
	Self Correction				
	Comment Clauses				
	Sarcasm / Humour				
	Control of Direct Speech Acts				
	Indirect Speech Acts				
	Other:-Obsession Compulsion				
	-Echolalia (+delayed)				
	- Splinter Skills (Accents)				
	- Attention				
	- Activity Level				
Non-Verbal Communication	Vocal Aspects: - Intensity				
	- Pitch				
	- Rate				
	- Intonation				
	- Quality				
	Non-verbal: - Facial Expression				
	Aspects:-Head Movements				
	- Body Posture				
	- Breathing				
	- Social Distance				
	- Gesture				
	- Pantomime				
	Other:-Foot, Arm, Leg Movement				
	- Eye Contact				
	- Eye Gaze				
	- Physical Contact				
	- Rocking				

ALL APPROPRIATE

APPENDIX B – SUBJECT FOUR
EXAMPLES OF NON-LILD RATINGS ACROSS A FORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request				
	Reply				
	Clarification Request				
	Acknowledgement				
	Turn Taking				
Control of Semantic Content	Topic Information				
	Topic Adherence				
	Topic Shift				
	Lexical Choice				
	Idea Completion				
	Idea Sequencing				
	Other: Topic Selection				
Cohesion	Tense Use				
	Reference				
	Lexical Substitute Forms				
	Relative Clause				
	Pronominal Adjectives				
	Conjunctions				
Fluency	Interjections				
	Repetitions				
	Incomplete Phrases				
	False Starts				
	Pauses				
	Word Finding Difficulties				
Sociolinguistic Sensitivity	Polite Forms				
	Reference to Interlocutor				
	Placeholders, Fillers, Stereotypes				
	Acknowledgements				
	Self Correction				
	Comment Clauses				
	Sarcasm / Humour				
	Control of Direct Speech Acts				
	Indirect Speech Acts				
	Other:-Obsession Compulsion				
	-Echolalia (+delayed)				
	- Splinter Skills (Accents)				
	- Attention				
	- Activity Level				
Non-Verbal Communication	Vocal Aspects: - Intensity				
	- Pitch				
	- Rate				
	- Intonation				
	- Quality				
	Non-verbal: - Facial Expression				
	Aspects:-Head Movements				
	- Body Posture				
	- Breathing				
	- Social Distance				
	- Gesture				
	- Pantomime				
	Other:-Foot, Arm, Leg Movement				
	- Eye Contact				
	- Eye Gaze				
	- Physical Contact				
	- Rocking				

ALL APPROPRIATE

APPENDIX B – SUBJECT ONE
EXAMPLES OF LILD RATINGS ACROSS AN INFORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request		✓✓✓		
	Reply		✓✓✓		
	Clarification Request		✓✓✓		
	Acknowledgement		✓✓✓		
	Turn Taking	✓✓	✓		
Control of Semantic Content	Topic Information	✓✓	✓		
	Topic Adherence	✓✓✓			
	Topic Shift	✓✓✓			
	Lexical Choice			✓✓✓	
	Idea Completion			✓✓✓	
	Idea Sequencing		✓	✓✓	
	Other: Topic Selection	✓✓	✓		
Cohesion	Tense Use			✓✓✓	
	Reference			✓✓✓	
	Lexical Substitute Forms			✓✓✓	
	Relative Clause			✓✓✓	
	Pronominal Adjectives			✓✓✓	
	Conjunctions			✓✓✓	
Fluency	Interjections			✓✓✓	
	Repetitions			✓✓✓	
	Incomplete Phrases			✓✓✓	
	False Starts			✓✓✓	
	Pauses			✓✓✓	
	Word Finding Difficulties			✓✓✓	
Sociolinguistic Sensitivity	Polite Forms	✓✓	✓		
	Reference to Interlocutor	✓✓✓	✓		
	Placeholders, Fillers, Stereotypes			✓✓✓	
	Acknowledgements	✓	✓✓		
	Self Correction			✓✓✓	
	Comment Clauses	✓	✓✓		
	Sarcasm / Humour		✓✓✓		
	Control of Direct Speech Acts			✓✓✓	
	Indirect Speech Acts			✓✓✓	
	Other:-Obsession Compulsion			✓✓✓	
	-Echolalia (+delayed)			✓✓✓	
	- Splinter Skills (Accents)			✓✓✓	
	- Attention	✓✓✓			
	- Activity Level	✓✓✓			
Non-Verbal Communication	Vocal Aspects: - Intensity			✓✓✓	
	- Pitch			✓✓✓	
	- Rate			✓✓✓	
	- Intonation	✓✓✓			
	- Quality	✓✓✓			
	Non-verbal: - Facial Expression		✓✓✓		
	Aspects:-Head Movements			✓✓✓	
	- Body Posture	✓✓✓			
	- Breathing			✓✓✓	
	- Social Distance			✓✓✓	
	- Gesture			✓✓✓	
	- Pantomime			✓✓✓	
	Other:-Foot, Arm, Leg Movement			✓✓✓	
	- Eye Contact		✓✓✓		
	- Eye Gaze			✓✓✓	
	- Physical Contact			✓✓✓	
	- Rocking			✓✓✓	

APPENDIX B – SUBJECT TWO
EXAMPLES OF LILD RATINGS ACROSS AN INFORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request		✓✓✓		
	Reply		✓✓✓		
	Clarification Request		✓✓✓		
	Acknowledgement		✓✓✓		
	Turn Taking	✓✓	✓		
Control of Semantic Content	Topic Information		✓✓✓		
	Topic Adherence		✓✓✓		
	Topic Shift	✓✓	✓		
	Lexical Choice			✓✓✓	
	Idea Completion		✓✓✓		
	Idea Sequencing		✓✓✓		
	Other: Topic Selection		✓✓✓		
Cohesion	Tense Use			✓✓✓	
	Reference			✓✓✓	
	Lexical Substitute Forms			✓✓✓	
	Relative Clause		✓✓✓		
	Pronominal Adjectives		✓✓✓		
	Conjunctions		✓✓✓		
Fluency	Interjections			✓✓✓	
	Repetitions			✓✓✓	
	Incomplete Phrases			✓✓✓	
	False Starts			✓✓✓	
	Pauses			✓✓✓	
	Word Finding Difficulties			✓✓✓	
Sociolinguistic Sensitivity	Polite Forms			✓✓✓	
	Reference to Interlocutor		✓	✓✓	
	Placeholders, Fillers, Stereotypes			✓✓✓	
	Acknowledgements		✓	✓✓	
	Self Correction			✓✓✓	
	Comment Clauses			✓✓	
	Sarcasm / Humour		✓✓✓		
	Control of Direct Speech Acts			✓✓✓	
	Indirect Speech Acts			✓✓✓	
	Other:-Obsession Compulsion			✓✓✓	
	-Echolalia (+delayed)			✓✓✓	
	- Splinter Skills (Accents)			✓✓	
	- Attention	✓✓✓			
	- Activity Level	✓✓			
Non-Verbal Communication	Vocal Aspects: - Intensity			✓✓✓	
	- Pitch			✓✓✓	
	- Rate			✓✓✓	
	- Intonation		✓✓✓		
	- Quality		✓✓	✓	
	Non-verbal: - Facial Expression			✓✓✓	
	Aspects:-Head Movements			✓✓✓	
	- Body Posture			✓✓✓	
	- Breathing			✓✓✓	
	- Social Distance			✓✓✓	
	- Gesture			✓✓✓	
	- Pantomime		✓	✓✓	
	Other:-Foot, Arm, Leg Movement	✓✓	✓		
	- Eye Contact		✓✓✓		
	- Eye Gaze			✓✓	
	- Physical Contact			✓✓	
	- Rocking			✓✓✓	

APPENDIX B – SUBJECT THREE
EXAMPLES OF NON-LILD RATINGS ACROSS AN INFORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request				
	Reply				
	Clarification Request				
	Acknowledgement				
	Turn Taking				
Control of Semantic Content	Topic Information				
	Topic Adherence				
	Topic Shift				
	Lexical Choice				
	Idea Completion				
	Idea Sequencing				
	Other: Topic Selection				
Cohesion	Tense Use				
	Reference				
	Lexical Substitute Forms				
	Relative Clause				
	Pronominal Adjectives				
	Conjunctions				
Fluency	Interjections				
	Repetitions				
	Incomplete Phrases				
	False Starts				
	Pauses				
	Word Finding Difficulties				
Sociolinguistic Sensitivity	Polite Forms				
	Reference to Interlocutor				
	Placeholders, Fillers, Stereotypes				
	Acknowledgements				
	Self Correction				
	Comment Clauses				
	Sarcasm / Humour				
	Control of Direct Speech Acts				
	Indirect Speech Acts				
	Other:-Obsession Compulsion				
	-Echolalia (+delayed)				
	- Splinter Skills (Accents)				
	- Attention				
	- Activity Level				
Non-Verbal Communication	Vocal Aspects: - Intensity				
	- Pitch				
	- Rate				
	- Intonation				
	- Quality				
	Non-verbal: - Facial Expression				
	Aspects:-Head Movements				
	- Body Posture				
	- Breathing				
	- Social Distance				
	- Gesture				
	- Pantomime				
	Other:-Foot, Arm, Leg Movement				
	- Eye Contact				
	- Eye Gaze				
	- Physical Contact				
	- Rocking				

ALL APPROPRIATE

APPENDIX B – SUBJECT FOUR
EXAMPLES OF NON-LILD RATINGS ACROSS AN INFORMAL CONTEXT

		I	SA	A	CNE
Response to Interlocutor	Request			ALL APPROPRIATE	
	Reply				
	Clarification Request				
	Acknowledgement				
	Turn Taking				
Control of Semantic Content	Topic Information				
	Topic Adherence				
	Topic Shift				
	Lexical Choice				
	Idea Completion				
	Idea Sequencing				
	Other: Topic Selection				
Cohesion	Tense Use				
	Reference				
	Lexical Substitute Forms				
	Relative Clause				
	Pronominal Adjectives				
	Conjunctions				
Fluency	Interjections				
	Repetitions				
	Incomplete Phrases				
	False Starts				
	Pauses				
	Word Finding Difficulties				
Sociolinguistic Sensitivity	Polite Forms				
	Reference to Interlocutor				
	Placeholders, Fillers, Stereotypes				
	Acknowledgements				
	Self Correction				
	Comment Clauses				
	Sarcasm / Humour				
	Control of Direct Speech Acts				
	Indirect Speech Acts				
	Other:-Obsession Compulsion				
	-Echolalia (+delayed)				
	- Splinter Skills (Accents)				
	- Attention				
	- Activity Level				
Non-Verbal Communication	Vocal Aspects: - Intensity				
	- Pitch				
	- Rate				
	- Intonation				
	- Quality				
	Non-verbal: - Facial Expression				
	Aspects:-Head Movements				
	- Body Posture				
	- Breathing				
	- Social Distance				
	- Gesture				
	- Pantomime				
	Other:-Foot, Arm, Leg Movement				
	- Eye Contact				
	- Eye Gaze				
	- Physical Contact				
	- Rocking				