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PRAGMATIC COMMUNICATIVE COMPETENCE IN REHABILITATED LANGUAGE-IMPAIRED PRESCHOOL CHILDREN

A DISSERTATION SUBMITTED TO

THE DEPARTMENT OF SPEECH PATHOLOGY AND AUDIOLOGY,
FACULTY OF ARTS,
UNIVERSITY OF THE WITWATERSRAND,
JOHANNESBURG

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF MASTER OF ARTS IN
SPEECH PATHOLOGY

BY

BEVERLY SANDRA JOFFE

JOHANNESBURG, 1990

DECLARATION

I hereby declare that this dissertation is my own work and that it has not been submitted to any other university.



Beverly Sandra Joffe

In memory of my father

Abe Eliezar Goldstein

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ABSTRACT

Aspects of communicative competence encompassing syntactic, pragmatic and social skill dimensions were examined in preschool children. Subjects comprised five language-impaired children who had been declared remediated after a period of language therapy (Age 5.0-6.5) and five children of the same age considered to be linguistically normal. Unstructured mother/child interactions yielded language samples which were analysed according to the Language Assessment Remediation and Screening procedure. Structured child/unfamiliar interlocutor dyadic interactions were analysed in terms of the Behavioural Inventory of Speech Act Performances and according to a devised pragmatic addendum. Social skill profiles were obtained by means of the Devereaux Elementary School Behaviour Rating Scale. No statistical differences occurred between groups on linguistic, pragmatic and social skill dimensions. Individual profiles of certain presumably remediated subjects revealed ineffective communicative modes in a structured dyadic context as well as communicative deficits and behavioural problems in the classroom situation.

Significant correlations emerged among various linguistic pragmatic and social skill parameters. Theoretical and clinical implications of these correlations and of deficits uncovered by particular measures in different contexts, are discussed.

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CHAPTER 1

INTRODUCTORY PERSPECTIVE

The ultimate criterion for when therapy services should cease for children diagnosed as language-impaired, has been neither clearly nor uniformly specified. Issues regarding what constitutes remediation, and "when?" and "why?" to dismiss a child from a therapy programme, have been raised in various forms by a number of authors (Eger, 1986; Kemp, 1983; Warren and Kaiser, 1986b). These issues have not been sufficiently addressed and there is limited objective and systematic data relating to questions of timing and rationale for therapy dismissal (Eger, Chabon, Mient and Cushman, 1986; Kemp, 1983). It has been postulated that remediation dictates that there be "...significant changes in the formal system of communication; evidence of increased expression of social intention and functional use of the expanded formal system..." (Warren and Kaiser, 1986b, p. 294). Furthermore Schery and Lipsey (1983, p. 272) state that therapy programme "...outcome variables should span the spectrum of relevant client behaviors and be measured in ways that allow the generality, duration and robustness of the effects to be determined".

It is apparent that in practice, clinicians do not always take cognizance of, nor adhere to the criteria that Warren and Kaiser (1986b) and Schery and Lipsey (1983) put forward for remediation. A wide range of reasons have been proposed by clinicians for dismissing a child from a therapy programme. Reasons that clinicians put forward for discharging children from therapy include the following: the attainment of a prespecified objective such as achieving correct production of a linguistic structure, or evidence of higher scores on standardized tests post therapy than had been obtained at the onset of therapy. There are also instances, (though gratifyingly infrequent), where a time factor is cited as a reason for discontinuance of therapy services. While some of these reasons may not have resulted in any negative outcomes, it has become patently evident that there are children who continue to exhibit problems following therapy dismissal.

Increasingly, studies have indicated that language disorders persist beyond the preschool years (Aram, Ekelman and Nation, 1984; Hall and Tomblin, 1978). If early language disorders persist, then it is understandable that delays could occur in future refinement of structures and concepts and additional development of sophisticated elements, which would normally take place with maturation beyond the

preschool years (Owens, 1984; Palermo and Molfese, 1972). The implications for emerging, complicating problems are apparent in the elucidative quotation from Bashir, Kuban, Kleinman and Scavuzzo (1983):

> What influences do time-displaced acquisitions of normal syntactic and morphological rules have on the functioning of the child with a language disorder when this child is asked to participate in learning activities based on developmental readiness and presuppositions about the presence of certain linguistic knowledge? (p.93).

It has been suggested that children with language disorders are 'at risk' for, or on a 'continuum' towards the development of learning problems (Aram and Nation, 1982; Bashir et al., 1983; Simon, 1985; Wiig and Semel, 1984). It has also been claimed that language disordered children come to be associated with a 'language and learning disabled' label upon entry into school (Snyder, 1984, p.130). Language and learning disorders in turn, have been associated with social and behavioural problems (Cantwell and Baker, 1985; Donahue, Pearl and Bryan, 1980; Fey, 1986; Tomblin and Liljegreen, 1985; Wiig and Semel, 1984).

More recently, studies have emerged that lend support to the notion that communication disorders persist despite intervention (Damico, 1988). Studies reflect that it is not sufficient only to target structural aspects of language as this does not result in amelioration of communication problems. Broader, more

subtle aspects of persisting language problems have been recognized by viewing language within a communicative framework, and by addressing communicative problems via a pragmatic perspective.

Controversially, some authors have suggested that certain persisting language problems could even be attributable to exposure to therapy, or more specifically to types of intervention methods (Steckol, 1983). Therapy techniques are being called into question with regard to the possibility of precipitation and perpetuation of ineffective modes of communication. Questionable therapy techniques per se, together with the misguided conception that a language deficit might resolve naturally, should not be put forward as reasons for withholding intervention. This is because any prediction of outcome in the field of child language pathology is indefinitive. A study that suggests evidence contrary to this premise, is one by Bishop and Edmundson (1987) which demonstrates accurate outcome predictions for children assessed between the ages of three and four years, who were diagnosed as a "good outcome group", and who then, when tested at age five years had resolved their language disorder. The investigators, however, acknowledged that had they used more sensitive measures, they may have found that deficits still existed in the sample they studied (Bishop and Edmundson, 1987). They concede as well that

it is possible that difficulties could manifest again in their "good outcome group" after the age of five years, when certain areas of verbal skill are developing.

Personal observation in preschool language clinics has also lent support to the literature suggesting that language disorders persist beyond the preschool years, at times despite intervention. My clinical impression of a number of preschool language-impaired children who have progressed to an advanced stage in a therapy programme, is one which suggests that some subtle problems remain. These personal perceptions are reflected in Steckol's (1983, p.5) words "...when all is said and done, and the child is using adequate linguistic structure through whatever method, there is still something different about the child's use of language". I have observed that children who have been declared remediated still evidence difficulty in several areas. They have difficulty using "taught" structures in natural contexts. They respond in a contrived "therapised" manner through the use of full sentences (thereby providing redundant information), when an elliptic statement or response would have been more appropriate. A number of authors have also identified behaviours such as these. Steckol (1983, p.4) refers to the child performing "...structures in a robot-like manner without any real understanding of

their form or usage". My impressions together with observations presented by researchers (Rees, 1978, Steckol, 1983), confirm Damico's (1985, p.165) suggestion that "The professional's clinical judgement and informal observations indicate problems, but the objective assessment tools do not support these impressions".

It would seem then that, in view of evidence pertaining to persistence in language problems, the possibility exists that in the past clinicians may have erred in making inaccurate and premature decisions related to remediation. It is possible that assumptions regarding remediation may have been made ac· .rding to criteria that have been too narrow. In other words, the possibility exists that children may have been dismissed from therapy before it had been ascertained whether or not these children had reached a true level of communicative competence. Siegel (1983) addresses the time question in remediation, by questioning whether or not therapy has been discontinued too soon and Lynch (1986) queries the long term effect of incorrect decisions.

In order to appreciate the need to ensure that the language-impaired child in fact has attained an optimal level of communicative functioning, it is pertinent to consider the importance of adequate communicative

abilities for the child. Writers frequently refer to the value of adequate communicative abilities (Johnston, Weinrich and Johnson, 1984) and this value for the child is perhaps best conveyed in the choice of paragraph heading by Wood (1981, p.141), which she entitles "Power in language structure". Her assertion is that the child who is competent in communicative ability, will be the child who is autonomous. I believe that if a child's needs are to be viewed holistically, it is necessary to ensure that we have facilitated the child's autonomy through his/her communicative skills by means of our therapy services. In order to do so, accountability to the client dictates that besides the need to ensure adequate diagnostic and effective intervention methods, it is also essential to address the remediation aspect of the programme.

I believe there is an argument for the need to address the issue of remediation in the preschool years. That is, by doing so we would ensure that our therapy services move towards the prevention of resultant superimposed language/learning, social and behavioural problems and towards the enhancement of the child's functioning in the formal school system. In 1987 ASHA endorsed a statement of the National Joint Committee on Learning Disabilities, from which a portion is quoted:

"...the preschool years represent a critical period during which essential prevention and intervention efforts are most effective..." (NJCLD, 1987).
My bias towards the goal of remediation at the preschool level relates to the concept of 'communicative readiness for formal schooling'. Analogous terms that pertain to the same concept have been used by various authors. Simon (1985) refers to a 'readiness' and Johnston, Weinrich and Johnson (1984) speak of an 'adequate base' to begin school. It would seem evident that it is the clinician's responsibility to optimize the child's communicative readiness for formal schooling in that this might waylay problems that could arise in the school context.

It has been suggested that children who enter formal schooling might have difficulty coping with the change to 'classroom talk', which by its didactic nature is contextually different from familiar styles of communication that children have experienced in the preschool years (McTear, 1985c; Tattershall and Creaghead, 1985). Nelson (1985) suggests that the manner in which language use in the classroom context differs from that in the home environment is by way of turntaking conventions, repair opportunities and demands on language comprehension that may be context free. Authors stress that children need to know the rules of classroom discourse (Ripich and Spinelli,

1985; Tattershall and Creaghead, 1985). It has furthermore been suggested that children might learn different rules in the clinical context from those required of them in the primary grade classroom (Spinelli and Ripich, 1985b). Thus it is apparent that the child who enters formal schooling may be faced with demands over and above the requisite for the facility of adequate linguistic skills. It is therefore pertinent to evaluate if language-impaired preschool children who have been declared remediated and who are about to enter formal schooling do have the strategies to cope within this context.

The need to ensure that the preschool language-impaired child develops effective communication seems paramount in view of the implications for persisting language problems. If clinicians ignore the multiple ramifications of the variables involved in remediation, they risk defaulting on an important aspect of therapy services. That is, clinicians would, in so doing, be allowing an oversight in the formulation of dismissal criteria for the remediation phase of the therapy programme.

It is necessary to look more closely at the questions "what?", "when?" and "why?" that pertain to issues in remediation of language-impairment. Considerations highlighted in this chapter provide indications for an

aspect of the rationale for this study, that is, the reason for investigating communicative abilities in 'rehabilitated' language-impaired preschool children. A pragmatic perspective is adopted for the present study, with the assumption that pragmatic parameters might identify more clearly any subtle aspects of persisting communicative problems. The reason for adopting a pragmatic framework from which to conduct the present study will be elucidated in a discussion of pragmatics in the clinical domain in Chapter 2 and in a detailed account of pragmatics in Chapter 3. In order to convey the considerations for aligning with this perspective, it is necessary at this point to provide a brief account of what the pragmatic dimension offers. The pragmatic paradigm, increasingly adopted in the decade of the eighties, to the extent that it was referred to as the current "buzzword" (Rees, 1983), has broadened perspectives in the domain of speech/language pathology. Pragmatics offers a functional perspective from which to view language. While Siegel (1987, p.309) suggests that "the helping professions are very vulnerable to fads...", it is sobering to note that that the virtues of functionalism were expounded in the late fifties. In a preface to a book by Piaget (1959), (first published in 1926), Claparéde emphasized the ideas advocated by Piaget in the following manner:

> The functional question fertilizes the structural question, and states the problem better than any other way. It alone gives full significance to the details of the mechanism, because it sees them in relation to the whole mechanism (p. xvi).

It is possible that the adoption of a pragmatic approach to the investigation of issues in remediation, per se, might expand perceptions regarding what remediation encompasses. If the broader perspective that a pragmatic investigation offers does facilitate identification of residual problems in language-impaired children who have been declared remediated (by whatever means), certain implications could emerge. If, for instance, there is evidence of subtle persisting communicative problems in children presumed to be remediated, it could be inferred that criteria for dismissal from the intervention programme might have been inaccurate. It might then be argued that the particular aspects that persist should have been considered in the formulation of accurate dismissal criteria. It might then be possible to postulate what accurate remediation criteria should comprise.

There are few if any studies that address communicative abilities in preschool language-impaired children who have been declared remediated. Additional and more detailed information on this population of children would contribute to knowledge regarding what might be expected as regards communicative abilities in these

children. Furthermore, an investigation into communicative abilities of preschool children presumed to be remediated and linguistically normal preschoolers could allow the clinician to become au fait with factors that might constitute communicative readiness for formal schooling. Such knowledge could allow the clinician to begin to address the question of what remediation comprises more effectively, and would facilitate the process of refining appropriate criteria for the dismissal of clients from therapy.

1.1 DESCRIPTION OF CHAPTERS

Chapter 1 has presented a perspective on the implications of persisting language-impairment and the rationale for investigating remediation issues in the "rehabilitated" language-impaired preschool population.

Chapter 2 presents an overview of foci of approaches to child language pathology through the decades. Current perceptions regarding the nature of language-impairment and assessment and treatment issues in the clinical domain are discussed. Pragmatic abilities in the paediatric language-impaired population are described. The influence of the pragmatic perspective within the clinical domain is presented. The concept of pragmatics being an interrelated construct is explored. The relation between syntax and pragmatics and pragmatics and social skills is considered.

Chapter 3 provides a more detailed discussion of pragmatics by way of addressing theoretical and methodological issues related to the adoption of this paradigm to the field of communication disorders. A focus is given to speech act theory and to semantic and pragmatic issues. The literature is reviewed highlighting methodological issues. Developmental

pragmatics is discussed. In addition a description and evaluation of Lucas Arwood's framework is presented and the rationale for aligning with her approach provided.

Chapter 4 conveys the methodology of this study. The aims, research design, subjects, modes of data collection, battery of measurements and methods of data analysis are presented.

Chapter 5 presents the results both quantitatively and qualitatively and provides a discussion of the results.

Chapter 6 provides a general discussion which pertains to interpretation of the results and evaluation of measures used. Theoretical and clinical implications of results from the present study are discussed. Conclusions are presented and suggestions for future research provided.

CHAPTER 2

LANGUAGE: THE COMPONENTS

The complexity inherent in attempts to define and to describe accurately dimensions of language, is reflected in the profuse literature in this area. While it is beyond the scope of this study to provide a comprehensive account of every theory that has been put forward on language, this chapter will provide a glimpse of a number of perspectives on language that have emerged over the years. This orientation, in turn, serves to present the reader with an appreciation of the complex issues involved in seeking explanations on various levels in the area of child language pathology. Within this chapter, perceptions regarding the nature of language impairment and modes of assessment and intervention procedures have been addressed. A specific focus is given to pragmatics within the clinical domain. In addition, the issue of potential interrelationships among pragmatic, syntactic and social skill dimensions is explored. The rationale for assuming the social interaction perspective in the present study will emerge.

2.1 FOCI OF LANGUAGE APPROACHES

Conceptualizations of language in terms of its description, emergence and development have evidenced a multitude of views through the decades. Similarly, theoretical approaches and methodologies applied to the measurement and remediation of language problems have shown diversity and change. A synopsis of foci of approaches to language will serve to illustrate how changing perspectives on language have influenced theories and therapy modes in the area of child language pathology over the past fifty years.

During the nineteen-thirties and forties, it is apparent that 'speech', as opposed to 'language', received the major emphasis in the field of speech-language pathology. McLean's (1983) expository review of past trends in our field provides an illuminating account of influences and procedures adopted in that era. He refers to therapy at that stage mainly targetting articulation, with some work on vocabulary and traditional grammar for children described as having 'delayed speech'. Influenced by the fields of psychology and education, and lending principles of stimulus-response, trial and error, and habituation, it was suggested that 'learning' occurred through 'doing', and so therapy techniques included vocal modelling and drill behaviours (McLean, 1983).

During the forties and fifties, factors such as vocabulary size, sentence length, pronunciation and grammatical errors were judged in terms of normative data (Lund and Duchan, 1983). Topics of research included investigating language related to social class, or language differences between male and female subjects. The pathology approach, emerging from the medical model also became prevalent in the fifties. Emphasis was placed on classifying presenting symptoms under labels such as aphasia (Lund and Duchan, 1983). Therapy efficacy was queried for certain problems that were classified as organic. According to McLean (1983), the primary therapy target during this time was still speech.

The mid to late fifties evidenced the emergence of descriptive linguistics ("...the discipline which studies languages in terms of their internal structures", Gleason, 1961, p. iii) and transformational generative grammar ("...rules which specify the permissible constituent structures or elements of phrases ... to account for a speaker being able to produce and understand an infinite number of sentences" (Bohannon and Warren-Leubecker, 1985, p.184). "Chomsky's system of transformational grammar was developed .. in order to give mathematically precise description of some of the most striking features of language" (Lyons, 1970, p.11).

The linguistic approach predominated during the sixties. McLean (1983) suggests that Chomsky's (1957, 1965) "generative grammar theories" filled an immense void in the clinician's theoretic model. Clinicians now had the ability to differentiate language and speech. Thus at that stage child language was viewed as rule-governed and language was analysed in terms of discrete units and its structure explored. Rules were explained according to levels of phonology (rules for combining sounds to form words), morphology (units of meaning, for example, plural markers), and syntax (rules to combine words and phrases into sentences, for example, 'subject verb object' and transformations of one sentence to another). (Definitions taken from Nicolosi, Harryman and Kreshek, 1978; Owens, 1984). Further concepts introduced by Chomsky in his theoretical framework were the notions of linguistic competence and performance (also referred to as surface structure) (Lyons, 1970). Linguistic competence referred to the deep structure of language in terms of rules for grammaticality. This was differentiated from the surface structure performance, where potential errors might occur in the application of these rules.

Basic to Chomsky's theory was the concept that language was innate in humans (Lund and Duchan, 1983; Naremore, 1984). McLean (1983) suggests that this view may have

reinforced notions of organicity, and therefore affected treatment outcome predictions.

During the sixties child language pathology was also influenced by trends in behavioural psychology. According to McLean (1983), the influence of behaviourism resulted in language responses being targetted with children who previously might have been excluded from intervention because of the perceived severity of their problem. In general however, therapy techniques remained similar to the previous decade, that is the essential modes of imitation and reward were still used, only now additional language structures were targetted. This was the case "...despite Chomsky's views that there could be no impact on these forms through functional means" (McLean, 1983, p.118).

In the decade of the seventies, studies were conducted which addressed the innatist theory of language, that is whether children discovered or were taught rules. Another dimension investigated was that of the relationship between cognition and language development. The major dimension however that came to the fore in the early seventies, was that of semantics. Semanticists took meaning to be a base for their linguistic theories (Leech, 1983); they looked at the meaning of words and at semantic relations expressed in

utterances. A major proponent of this approach, Bloom (1970), suggested that "...linguistic descriptions of the form of children's speech provide only partial information about the child's intuitive knowledge of a linguistic code". She referred further to "...interpreting the semantic intent of utterances so that inherent grammatical structure could be identified" (Bloom, 1970, p.2).

In the late seventies attention began to be focussed on the pragmatic dimension. Carrow-Woolfolk and Lynch (1982, p.31) suggest that interest in the pragmatic dimension resulted from perceptions that "...semantic and structural analyses of language did not provide an adequate and complete account of language...". Pragmatics has been described as the consideration of language use for communicative purpose within the social context (Bates, 1976; Fey and Leonard, 1983; Lucas Arwood, 1984; Lund and Duchan, 1983; Prutting and Kirchner, 1983). Pragmatics is viewed as a broad discipline, taking in form, meaning and context. Leech (1983) suggests that pragmatics embraces meaning in use within a social dimension and that pragmatic principles are motivated in terms of conversational goals. Wilcox (1984, p.101) indicates that this broadened perspective resulted in a focus on "... communicative, rather than purely linguistic, competence". The pragmatic perspective has been described as encompassing such

questions as, skill with which the child adapts his/her language so as to be relevant to the listener and the ability to use the socio-interpersonal context in creating and interpreting the linguistic message (Blank, Rose and Berlin, 1978). McLean (1983, p.121) suggested the implications for a change in therapy programmes as a result of increased conceptualizations of the semantic and pragmatic dimensions in language, thus: "...treatment procedures designed to train grammatic structures clearly had to be radically altered to accommodate the notion that such structures were multi-determined by both semantic needs...'to mean'...and social performance needs...'to have some social effect'".

The pragmatic perspective was highly visible during the decade of the eighties and provided answers to many issues that previously had not been accounted for. It also has the potential to provide answers to many more questions. Section 2.2.4 will elaborate on the effects that the pragmatic perspective has had in the clinical domain. In so doing, the rationale for using a pragmatic framework for this study will emerge. A more detailed account of theoretical and methodological issues concerning pragmatics will be presented in Chapter 3. Before presenting the influence of the pragmatic paradigm on assessment and intervention

modes, it is necessary to consider a number of issues that relate to the clinical domain within the field of child language.

2.2 THE CLINICAL DOMAIN

This section deals with the manner in which language-impairment has been described in children as well as assessment and intervention modes that have been used in recent years. The reason for a consideration of these areas is influenced by an assumption that the manner in which language-impairment is regarded would have an obvious influence on the way in which remediation is viewed.

2.2.1 NATURE OF LANGUAGE-IMPAIRMENT

According to Bloom and Lahey (1978, p.11), "Language consists of some aspect of content or meaning that is coded or represented by linguistic form for some purpose or use in a particular context". Disordered language has been described as "...any disruption within a component or in the interaction among the components..." of form, content or use (Bloom and Lahey, 1978, p.291). This description suggests that language disorders might include difficulties in all or any of the dimensions of syntax, morphology, semantics and pragmatics. Kirchner and Skarakis-Doyle (1983)

suggest that rather than the notion of a single deficit, a view of disordered language should take into account the interaction between components which each contribute to the nature of the disorder. They view communicative behaviour as "...a dynamic system comprised of inseparable parts which directly influence each other and the system as a whole" (Kirchner and Skarakis-Doyle, 1983, p.221). In light of these descriptions it appears vital that clinicians take into account the multidimensional nature of communication, consider specific aspects that might be involved in a deficit and take cognizance of the interrelationship among constructs. From observation of assessment and intervention practices, it is not always apparent that clinicians in fact do so.

The term 'language disorder' has been differentiated from 'language delay' by a number of authors. Language delay is described as a general uniform delay across language components in relation to an expected level of language abilities for a particular chronological age, or a systematic and sequential delay in the acquisition of linguistic skills (Kemp, 1983; Lucas, 1980). Language disorder, on the other hand, is described as a nonsystematic and nonsequential development of language, or asynchronous development between language components where abilities in only one component may be close to what is expected at a particular chronological

age. Alternatively a language disorder might involve differences in acquisition within a dimension (Kemp, 1983; Lucas, 1980).

Inferences based on intralinguistic referencing have been questioned however (Chapman, 1983; Fey, 1986). Chapman (1983, p.223) suggests that language development is not necessarily synchronous across its different aspects in normal development. In an analogous manner Leonard (1984, p.7) states that "...children may follow different routes, yet still acquire language in a normal manner and at a normal rate". Fey (1986) has also described variation in language development for normal children and it is probable that this would be the case for language-impaired children as well. From these suggestions it appears that differentiated rates of language development are an expected phenomenon in children.

Given the multidimensional nature of language and the expected variation in development, it is likely that language-impairment could hypothetically involve any one of these dimensions in varying degrees. Furthermore it is possible that individual children could evidence different patterns of deficits. It is thus understandable that reference is made to the heterogeneous nature of language-impairment (Muma, 1983; Kent, 1985; Kirchner and Skarakis-Doyle, 1983;

Simon, 1985). In fact, Muma (1983, p.200) states that "...a characteristic of clinical populations is heterogeneity".

Expected variation in communicative abilities of language-impaired children implicates that multiple factors should be taken into consideration in diagnostic, therapeutic and remediation issues. Furthermore it would seem important not to lose sight of the fact that individual children might have idiosyncratic communicative abilities and that this in turn would necessitate an individualized approach.

Notwithstanding the case for viewing each child with a language-impairment as potentially having an individualized pattern of deficit, it is apparent that there are a number of problems that have come ( ) be anticipated to occur generally in language-impaired children. Kirchner and Skarakis-Doyle (1983, p.218), for instance state that, despite different views on deviance versus delay, it is generally accepted that children who evidence syntactic problems for example, mostly have ".. high frequency of fragmentary or partial syntactic forms, not typical of the normal child at the same age or linguistic stage". Syntactic errors that typically have been described include omission of copula, substitution of pronouns, omission of determiners, among numerous others (Crystal, 1982).

Because these problems are so widely described, it is probable that clinicians would be sensitized to consider them in assessment and intervention. Potential manifestations of pragmatic problems in language-impaired children are not as routinely anticipated as those for syntactic problems. Because of this, it is possible that pragmatic problems may be overlooked which would have an effect on intervention and remediation issues.

Identification of language-impairment is often made in relation to language abilities of 'linguistically normal' children. Lund and Duchan (1983), for instance, refer to language-impairment in terms of deviation from average peer group performance. The process of comparison in child language is complicated by variation or heterogeneity in the normal population. This would imply that in order to arrive accurately at a diagnosis of language-impairment, more than a single measure is necessary to validate this decision. Furthermore, Chapman (1983) proposes that language-impairment should also be identified on the basis of communicative breakdown and ensuing consequences and that impairment should be viewed from the client's perspective rather than merely based on a test result. Despite numerous studies conducted within the pragmatic paradigm over the last decade, it appears that there is still insufficient detailed information on pragmatic

abilities in linguistically normal preschoolers. This is understandable given the fact that pragmatics is a relatively new area of inquiry within the field of speech-language pathology. However if normal children are to be used as a means of comparison for other groups, additional data on the former population is necessary to supplement expectations regarding their pragmatic communicative abilities. This would facilitate a solid basis of comparison for decisions pertaining to diagnosis and remediation of communicative disorders.

2.2.2 ASSESSMENT AND INTERVENTION MODES

A large number of standardized tests are utilized clinically in assessing language-impaired children. Many of these tests allow for the investigation of isolated dimensions of language, for example, either receptive vocabulary, receptive language or expressive syntax. Few tests exist which tap the multidimensional nature of language. There are also not many formal measures that consider pragmatics (Kemp, 1983; Fey, 1986). Kemp (1983) cautions that because there are a lack of formal measures of semantics and pragmatics, children might be discharged from therapy when syntactic performance is near chronological age, while this might not be the case for semantic and pragmatic performance.

Some clinicians have been noted to be biased towards certain tests, that is they tend to use the same test for all clients. It would seem that because of the heterogeneity of children, communicative abilities of certain children may not be adequately measured on the same tests. Carrow-Woolfolk and Lynch (1982) suggest that because language problems are multidimensional and interrelated, they cannot be assessed on a unidimensional basis, using a single assessment tool for all children.

Because of the nature of many of the standardized tests, many assessment situations involve contrived contexts, which are detrimental to obtaining valid indications of language abilities. Snyder (1983, p.148) states that "...some standardized measures are poorly constructed, presenting the listener and reader with nontypical language stimuli and measuring the least important information". Lund and Duchan (1983) discuss the artificiality of the test situation. Warren and Kaiser (1986a, p.248) suggest that tests "...represent narrow and potentially skewed measures of true language abilities". It has further been claimed that tests distort the child's true linguistic abilities, because testing is conducted outside of typical communicative contexts (Fey, 1986, p.351). Numerous authorities have questioned whether or not traditional standardized

measures are capable of tapping all aspects of communication (Bates, 1976; Klecan-Aker and Lopez, 1984a; Lund and Duchan, 1983; Prutting, 1983; Roth and Spekman, 1984a). Muma (1983, p.198) states that "it is imperative that the assessment of language be vested in natural circumstances rather than test performance alone".

With regard to intervention modes, it appears that the unidimensional, fragmented, contrived approach evident in assessment procedures is mirrored in the manner in which therapy has been conducted. Personal observations of clinicians suggest that there is a tendency to disregard the potential of targetting more than one dimension simultaneously. Clinicians have been noted to treat only one dimension of language at a time when there is evidence of problems in other potentially related areas. I have noted instances where therapy goals, for example, have addressed the achievement of the question transformation only on a syntactic level, in the presence of a pragmatic deficit in requesting. Leonard (1981, p.110) suggests that "training approaches that focus only on particular linguistic forms, are likely to result in the child's use of these forms and little more".

Therapy conventionally has been conducted (and in many instances continues to be conducted) in clinic rooms on a one-to-one basis, a context which is different to many real life situations. Prizant and Tiegerman (1984, p.20) suggest that "the history of service delivery in our profession is rooted firmly in an isolated model...". It is possible that because therapy is provided in the context of the clinic, progress might also be measured within this limited framework, which in turn could lead to oversights in remediation issues.

In that therapy procedures are often contrived, natural contexts necessary to effect generalization are not utilized. Crystal (1981) proposes that clinical interactions are different to normal interactions in that the therapist mainly takes the initiative and for example, rarely interrupts the client. Duchan and Weitzner-Lin (1987, p.46) suggest that "the directive mode of interaction between clinician and child seems to be the most prevalent" and they refer to 'lesson-like clinician-controlled' methods. Costello (1983) also suggests that the clinician's language to the child is highly structured and that reinforcement is artificial. It is possible that structures 'taught' in the clinic one-to-one context may not be 'learnt' effectively for use in contexts outside the clinic situation. In addition, it would seem that clinicians

who expose clients to a contrived model may inadvertently promote the acquisition of inappropriate communicative behaviours.

Although various techniques have been incorporated in intervention with language-impaired children, it appears that in training syntactic structures for example, some clinicians tend to favour the more directive techniques such as imitation and elicited production. In a comprehensive review of a number of studies that have addressed the facilitation of linguistic skills, Leonard (1981) presents those that have used techniques such as imitation, modelling, expansion, focussed stimulation, general stimulation or comprehension-based approaches. A number of studies have investigated the efficacy of particular techniques. Thus whereas Warren, McQuarter and Rogers-Warren (1984) provide advantages for incidental training, Cole and Dale (1986) found no significant differences in the facilitation of language skills by means of a direct instruction programme versus an interactive programme. Goldstein (1984), on the other hand, found that syntactic structures were learnt more efficiently through corrected practice procedures than through modelling. Leonard (1981, p.99) suggests that "...an approach can be regarded as superior to others only to the extent that the other approaches are successful in training use of the same form". In that

many studies have not utilized the same form for training to assess the efficacy of a particular technique, inferences regarding the efficacy of any one technique above another cannot be conclusive. Despite this, it would seem that both advantages and disadvantages are attached to various techniques, about which clinicians should be cognizant. It is my impression that these basically pertain to whether or not a technique can be both naturalistic and [illegible]ally facilitating.

While numerous studies have addressed the effects of particular techniques on the attainment of particular linguistic structures, few have investigated the overall communicative functioning of clients following therapy. Kent (1985, p.10) suggests that there is risk attached to "...measuring performance in such narrow areas that no carryover or generalization is observed in a client's overall communication". A number of authors have referred to aspects of communicative abilities that would require attention and which can be considered within the pragmatic domain. Shopen et. al (1981, p.28) states that "knowing how to use language means more than producing grammatical sentences ... it means ... selecting [illegible]at to talk about to achieve certain goals". Becker (1988) speaks of the importance for social competence of having the ability to know how to take turns and request, while Donahue (1985)

stresses the need to be able to repair communicative breakdown. Blank, Rose and Berlin (1978, p.6) state that "...we may in fact be offering little if the child is not proficient in the skills that are needed to be a full participant in the verbal exchange".

It is pertinent at this point to consider findings regarding broader communicative abilities in language-impaired children.

2.2.3 PRAGMATICS OF LANGUAGE-IMPAIRED CHILDREN

Studies that have compared language-impaired subjects to linguistically normal subjects across different pragmatic parameters have provided contrasting findings. Rom and Bliss (1983) found no significant differences between four year old language-impaired subjects and same age subjects, as well as younger same 'mean length of utterance' subjects, on a number of nonverbal pragmatic behaviours. Cromwell, Prather and Kenney (1985) reported no differences among five year old language-impaired and linguistically normal subjects in type of repair strategies used in response to clarification requests. Edmonds and Haynes (1988) found no significant differences in topic manipulation skills in 5.11 and 7.11 year old linguistically normal and language-impaired subjects. In not finding significant differences between learning-disabled/

language-impaired subjects and linguistically normal age mates on communicative effectiveness, Meline (1986) concluded that both groups of subjects were using comparable strategies.

Conversely, Brinton and Fujiki (1982) provide evidence to suggest that language-impaired subjects aged between 5.6 and 6.0 are less aware of the interactive nature of discourse, than same age linguistically normal subjects. Findings reported in Brinton and Fujiki's study include the following: Language-impaired subjects produced less appropriate responses to questions than linguistically normal subjects and only language-impaired subjects provided instances of ignored responses; language-impaired subjects never used hedges, whereas normals used this strategy infrequently; furthermore only linguistically normal as opposed to language-impaired subjects requested clarification. Schwabe, Olswang and Kriegsman (1986, p.38) suggest that language-impaired children are "...often restricted in their use of requests for information as a functional means of obtaining new knowledge". Brinton, Fujiki and Channell (1985) presented data to indicate that language-impaired subjects (regardless of whether they were five, seven or nine years of age), persisted less than, and used less varied attempts than linguistically normal subjects in their responses to requests for

clarification. Adams and Bishop (1989) found that language-impaired children who were described as having a semantic-pragmatic deficit tended to evidence inadequate responses to requests for clarification. Gallagher and Darnton (1978) investigated types of responses to the clarification request "what?" in language-impaired children across four of Brown's stages. In comparing their data on language-impaired children to data on same stage linguistically normal subjects (Gallagher, 1977), Gallagher and Darnton (1978) found that language impaired subjects reduced constituents more and substituted less than normal language subjects in their revision responses. These findings would appear to support those of Brinton et al. (1982, 1985) in demonstrating that language-impaired subjects appear to incorporate a qualitatively different strategy in their use of revision behaviours. From the literature it may be seen that a vast amount of data has been gathered on pragmatic abilities in language-impaired children, despite generalizations regarding findings being somewhat inconclusive. As will become apparent in the following chapter, it is possible that the difference in findings could be attributable to varying terminologies and methodologies employed.

Various authors have attempted to characterize conversational abilities of language-impaired children. Rapin and Allen (1983) identified sub-groups of language-impaired children, such as, semantic-pragmatic (questions frequently answered with seemingly irrelevant responses) and syntactic-pragmatic disordered groups. Bishop and Adams (1989) found that raters recognized inappropriate communicative behaviours in children regarded as having a semantic-pragmatic deficit. Among behaviours identified were: nil responses, lack of ellipses and violation of exchange structure. Fey (1986, p.70) classifies language-impaired children in terms of a number of characteristics. According to his framework, 'active conversationalists' are characterized by the ability to be assertive and responsive. 'Passive conversationalists' are described as responsive but not assertive, whereas 'inactive communicators' are neither responsive nor assertive. He coins the category 'verbal non communicators' for children who are verbally active but unresponsive to the conversational needs of a partner. Fey includes under assertive conversational acts various request forms. He regards responsive conversational acts as including responses to various request forms as well as topic maintenance (Fey, 1986). He proposes that the level of social-conversational participation may implicate different goals for each individual.

2.2.4 PRAGMATICS IN THE CLINICAL DOMAIN

The significant shift in ...s from a formal to a more pragmatic-based approach that occurred over the last decade, vastly broadened perceptions regarding assessment and therapy procedures (Lund and Duchan, 1983; Prutting, 1983). The pragmatic approach enabled clinicians to obtain extended information on parameters that had previously eluded explanation via narrow measures which exclusively address formal aspects of the language system. The pragmatic framework allowed the description of additional parameters and thus yielded the likelihood of broadening therapy targets. In so doing, the pragmatic approach provided the potential to facilitate comprehensiveness in therapy programmes and thus increase therapy efficacy. This potential yielded by the pragmatic perspective provides the rationale for adopting a pragmatic framework for the present study. That is, a broad, comprehensive perspective holds the potential for providing answers to questions regarding remediation that the present study is addressing.

Even though clinicians began to incorporate the pragmatic perspective into assessment procedures in the late seventies and throughout the decade of the eighties, it appears there have been times when assessment modes have been simplistic, by virtue of the

clinician not taking cognizance of the true complexity of the pragmatic paradigm. This premise will be expanded on in Chapter 3. It also has been apparent that intervention for pragmatic aspects at times has been initiated and conducted in an ad hoc manner. Bedrosian and Willis (1987, p.158) suggest that targetting pragmatic skills in a treatment programme is "...often considered as an afterthought". Moreover, the aspect of fragmentation (Damico, 1988) has been noted in the clinical domain, that is, pragmatics has often not been adopted within a unitary framework. Clinicians have been noted to work on isolated dimensions, rather than targetting all aspects of communication.

At other times it has been noted that clinicians continue to exclusively target formal language systems, apparently favouring the formalistic paradigm for its potential to offer the security of tangible objective data which presumably enhances accountability. However it is believed that clinicians who adopt programmes which rigidly prescribe a specific standardized test, or a specific uniform therapy procedure, focussing only on formalistic systems in the name of accountability, may be 'looking good', but not necessarily 'teaching good' (Marion, 1983). Bedrosian and Willis (1987, p.164) state that "it is possible to observe change in the overall language performance of a child by focussing on the communication in a functional manner

without spending long hours on semantic and syntactic drills". Norris and Hoffman (1990) provide principles of intervention for naturalistic interactions for the purpose of systematization. Conversely, it also has been observed that 'pragmatics' in certain instances is targetted to the exclusion of other dimensions. The importance of retaining a strong linguistic orientation when adopting a pragmatic perspective (Penn, 1989), will be elaborated on in the argument for retaining syntax within the pragmatic framework, in section 2.3.1

2.3 PRAGMATICS: AN INTERRELATED CONCEPT?

At times I have noted that pragmatics has been applied in a narrow sense, that is, linguistic and social dimensions of pragmatics have been ignored. Even though Bloom and Lahey's (1978) 'intersecting circles' of content, form and use portray semantics, syntax and pragmatics separately, it would seem that the intersecting nature of the circles provides some idea of the overlap and symphony of dimensions that appear to be involved in language use. Similarly, though Lund and Duchan (1983, p.41) view pragmatics as a separable domain, they also refer to the influence of pragmatics on syntax and semantics. It has been suggested that pragmatics, semantics and syntax are interrelated and operate synergestically, and that in the functionalist paradigm, pragmatics forms the overall framework from

which to study syntax and semantics (Prutting and Elliot, 1979; Prutting, 1982). Carrow-Woolfolk and Lynch (1982) stress the need to be aware of the interrelationship between language dimensions. It is thus necessary to take a closer look at these dimensions.

2.3.1 SYNTAX REVIEWED

Levinson states that "...aspects of linguistic structure sometimes directly encode (or otherwise interact with) features of context. It then becomes impossible to draw a neat boundary between context-independent grammar (competence) and context-dependent interpretation (performance)" (Levinson, 1983, p.8). Prutting and Elliot suggest further that "...emphasis has...been placed on explaining parts and/or components of language as opposed to specifying the degree or type of relationship which may exist among parts of a system" (Prutting and Elliot, 1979, p.342). Evidence cited for the premise that processes are interrelated involves conveying old or new information pragmatically and using different syntactic structures to do so, or use of stylistic variations according to interlocutor characteristics. (MacWhinney, 1984; Prutting and Elliot, 1979; Villaume, 1988). MacWhinney (1984, p.325) states that "...differences in word order, article use, ellipses and so on are not arbitrary formal facts.

Rather, they reflect fundamental differences in the kinds of points the speaker is trying to make". Halliday and Hassan (1976) suggest that lexicogrammatical systems are involved in the expression of cohesive relations. Sanders (1983) states that there are verbal devices for marking topic boundaries. It has been suggested that aspects of syntactic-semantic rules, for example, demonstratives and locative features are affected by pragmatic considerations (Prutting, 1982), and that "...distributional variations for adjectives and nouns reflect the limitations of absolute classification of parts of the syntactic system" (Prutting and Elliot, 1979, p.361). The implication for considering syntax simultaneously with pragmatics for this study is thus apparent. In the same vein that it is suggested that the application of a pragmatic approach without considering the requisite linguistic dimension detracts from a true pragmatic perspective, so too would the failure to take into account the social dimension.

2.3.2 THE CONSIDERATION FOR SOCIAL SKILLS

Currently the field of child language pathology is addressing the child within the social context. However, the means of fully accessing this dimension is still in the formulation stages. It is thus pertinent to consider issues surrounding the measurement of

social skills and the relation of social skills to communication.

McTear (1985c, p.7) states that "...pragmatics pervades language use at all levels". In an article entitled "Pragmatics as Social Competence", Prutting (1982, p.129, p.132) addressed the issue of "...appropriate communication being viewed as social competence..." and "...communicative behaviour, a subcomponent of social behaviour...". While clinicians may argue that they do consider social behaviour, it is my impression that the means of accessing this behaviour has not been sufficiently formalized in the clinical domain of speech-language pathology. In the ensuing section, the nature of social skills will be discussed and the manner in which they are assessed, presented.

Social skills are regarded within the domain of adaptive behaviour. According to Sattler (1982, p.308), "...adaptive behaviour reflects a person's competence in meeting independence needs and the social demands of his or her environment". Goodwin and Driscoll (1980, p.11) cite Anderson and Messick (1974) as suggesting that social competence may encompass any of the following elements: Cognitive competence (incorporating language skills and problem solving skills); motivational competence (involving curiosity, exploratory behaviour, control of attention, desire to

seek new learning); and affective competence (including the ability to initiate and control, to have sensitivity and understanding in social relationships and prosocial behaviour, for example, cooperative behaviour). Goodwin and Driscoll (1982) further cite White and Watts (1973) as including within social competence the following: the ability to seek out assistance where it is required and the ability to express affective states in an acceptable manner. Goodwin and Driscoll (1982) suggest that when looking at a child's social skills, one is looking at the child's interactions with adults and peers, in settings at home and at school.

Adaptive behaviour has been equated with maturation in the preschool years (Sattler, 1982). It has been hypothesized that the child's preschool social-emotional functioning may be related to academic functioning and intellectual achievement in early elementary grades (Kohn and Rosman, 1972). Kohn and Rosman cite findings from longitudinal research which revealed that children who had scored high on factors of 'apathy-withdrawal', showed low academic functioning in early elementary school years, in contrast to children who had obtained high scores on the dimension of 'interest-participation'. Generally their findings suggested that curiosity, alertness and assertiveness were greater facilitators of learning, than passivity,

apathy and withdrawal. From these findings, it is apparent that there could be considerable ramifications if social skills are not adequately accessed. It is only recently that our potential influence as speech-language pathologists in this area has been given prominence (Prizant, Audet, Burke, Hummel, Maher, Theadore, 1990).

In the field of psychometry, various trends have emerged in measurement in preschool education. Investigators have argued towards the suitability and worth inherent in the use of a number of different types of measures. The right of the multidimensional individual to be assessed on various dimensions is raised by Goodwin and Driscoll (1980). It has been further argued that measures of additional variables, such as social skills are desirable supplementaries to existing standardized measures. Wolf (1978), in his publication on the motivation for social validation and subjective measurement, lends particular weight to the argument for including additional measures of behaviour. In discussing the issue of 'social importance', Wolf expounds on the necessity of a "...subjective value judgement that society is qualified to make" (1978, p.206). Wolf discusses the import of judgements by society members, which they may make via particular ratings, in terms of social

relevance and in terms of understanding the social significance of a particular problem.

The place for alternative measures of adaptive behaviour is apparent when considering limitations of existing measures. It is evident that formal standardized tests administered to young children may present a number of problems. Areas of concern include the fact that one particular standardized test cannot measure all aspects of functioning. Standardized tests are administered in a contrived situation, which in itself, may be anxiety provoking and which may also result in the child producing response sets, or producing what he/she perceives to be socially desirable responses (Goodwin and Driscoll, 1980). Experienced anxiety levels may cause the child to fail to perform optimally on a task, which in fact, he/she is capable of performing. Problems would thus be encountered in using standardized tests to measure adaptive behaviour. Other measures also pose problems for measuring adaptive behaviour, for example self report inventories are difficult to use with young children, and projective tests involve much subjective interpretation and require proficiency in analysis. Just as standardized measures have posed problems for measuring adaptive behaviour, so too have these measures presented problems in the assessment of language. It has been suggested that standardized

language tests are context-stripped and thus do not allow natural cues for certain structures to be elicited. Furthermore, structures as they are used in actual contexts, are often not sampled during standardized language tests. To elaborate: a structure may appear to be within a child's repertoire when elicited on a static standardized formal language test whereas, in fact, it may not be correctly or consistently used in all contexts outside of the testing situation. Alternatively a child may appear not to possess certain structures when in fact, this may be an artefact of the test situation. That is, for example, a particular child may not perform a structure within a test situation because of anxiety experienced as a result of a contrived formal test situation or type of stimulus for elicitation. In a familiar situation the child might be quite capable of using this particular structure. Here again, the need for alternative sampling becomes evident and it becomes apparent why spontaneous language sampling, profiles, inventories and taxonomies have come into their own. Prutting (1982) advocated that our profession should be moving toward developing a means of accessing 'social validation' of language use. It appears thus, that there is a parallel between limitations existing in formal measures of adaptive behaviours and limitations involved in formal measures of language. The parallel

seems to exist, as well, in the development of alternative modes of assessing these areas.

Of greater import, it appears that there may be a relationship between findings on behavioural checklists (that have emerged in the field of psychology) and findings on inventories of pragmatic communicative behaviour (currently used in the speech-language pathology discipline). It is felt that attempts at investigating correlations that might exist between these two dimensions, may provide valuable insights into, for example, social skills possibly affecting pragmatic communication, or pragmatic communication possibly affecting social skills (or adaptive behaviour). Each of the currently used measures will be explored in turn. Simultaneously, the manner in which both measures may merge, will be considered.

Behavioural checklists, or rating scales relating to social skills afford the opportunity of social validation of behavioural strengths and weaknesses as they occur in the real world context (Goodwin and Driscoll, 1980; Sattler, 1982). If, for example, a teacher were to evaluate a child according to a behavioural checklist, it is likely that he/she would provide a more accurate indication of the child's abilities in that the school context expectations are known. Furthermore, a teacher is able to use the

child's peer group for comparison, which would aid the evaluation in terms of what is perceived as the child's behavioural strengths or weaknesses. While teachers could have preconceived biases towards certain children (which would yield suspect ratings), it is unlikely that they would overrate on positive or underrate on negative traits, as parents (who are subjectively involved) might. On the other hand, the potential advantages attached to parent ratings relate to the parent having a deeper understanding of the child and the likelihood that the child will function optimally with the parent. In a sense a teacher's rating constitutes a dynamic assessment of behaviours, as behaviours are observed in a context where frequent interaction in various contexts occurs.

By the same token, existing inventories to measure pragmatic communicative behaviour allow for communicative sampling in more naturalistic situations. Dynamic assessment of communication becomes possible when the child is assessed in terms of his/her use of language, the manner in which he/she affects the hearer or the way in which he/she is affected as a listener. By taking context into account, allowance is made for more accurate measurement of both optimal, as well as inadequate communicative behaviour.

It would seem that the merging of behaviour rating scales and inventories of pragmatic communicative behaviour, may lead to valuable insights in terms of possible correlations between certain parameters between measures. The hypothesis is that findings on a communicative inventory, for instance, might be explained in terms of findings on a social skills inventory. The following example may illustrate this more clearly: The child who shows difficulty in requesting information on a pragmatic communicative inventory, may also be reported to be withdrawn and anxious on a behaviour rating scale. Thus, evidence of one aspect could alert the helping professional to look for the other. The potential for attempting to seek correlations between adaptive behaviour and communicative behaviour appears to be further justified, when taking the following issues into consideration. It has been noted that items which seemed to best differentiate between normal and deviant behaviour groups was 'other speech difficulty' (Behar and Stringfield, 1974, p.603). Furthermore, Brown (1960) is cited to have found that the most typical characteristic of disturbed preschoolers was the 'odd quality of their speech' (Behar and Stringfield, 1974, p.603). Children identified as mild/moderately behaviourally disordered have also been found to evidence language disorders (Camarata, Hughes and Ruhl, 1989). On the other side of the coin, Chapman (1981)

states that besides verbal skills, social skills should also be taken into account in the attempt to facilitate effective communication in the child. It has been suggested that "...communication disorders frequently co-occur with emotional or behavioural disorders..." (Prizant et al., 1990, p.187).

A number of considerations have been raised in this chapter, which will be summarized. Over the decades there has been an expansion in conceptualizations regarding what communication encompasses and it appears that each decade has had a separate focus. At the beginning of the decade of the nineties it seems that despite the apparent adoption of the premise that communication involves more than language, some researchers and clinicians still do not take cognizance of a sufficient number of factors. The approach adopted by many authorities is one which is fragmented by virtue of a number of considerations. Researchers either investigate isolated parameters or focus on what they appear to perceive constitutes pragmatics. In so doing they address 'pragmatics' to the exclusion of syntactic and social skill factors. Narrow research of this nature delays progress towards understanding the nature of pragmatics. Assessment and intervention modes appear to mirror this fragmented approach. Dimensions are tested separately, often only in one context. The tester who utilizes only a pragmatic taxonomy to assess

a child who appears to present with essentially a pragmatic deficit may fail to take into account possible syntactic influences on the manner in which the child uses language. Similarly therapy which targets structures in the absence of a multi-dimensional perspective may delay progress in the child's acquisition and generalization of communicative structures. The present study is conceived from a broad perspective. Both linguistic and social skill factors are taken into account in investigating pragmatic communicative abilities. In that so few investigations have addressed linguistic, pragmatic and social skill factors simultaneously within the same study, additional research is required in order to begin to understand the nature of the interrelationship that might exist between these factors.

CHAPTER 3

PRAGMATICS IN PERSPECTIVE

To clinicians who were trained before the pragmatic era in the field of speech and language pathology, or to student clinicians contemplating the domain for the first time, pragmatics may appear at once obvious and simple, or highly esoteric. That there is risk attached to perceiving pragmatics in either of these ways is apparent when considering a number of research methods and observed clinical practices emerging, seemingly from holding these notions. If a pragmatic approach is implemented by a 'novice pragmatic clinician' (if such a term may be coined), who does not take cognizance of the complexity of the field, (such, for example, that assessment parameters are actually deceptive in their simplicity), the pragmatic perspective has been misconstrued. The clinician who maintains that a child has appropriate pragmatic abilities by virtue of having demonstrated one or two pragmatic behaviours, has been neither accurate nor comprehensive in the assessment mode. Taken together with this, if an approach is implemented in the absence of a conceptualized theory or sound methodology, it cannot be asserted that the pragmatic dimension has been truly accessed. I believe that by the same token, speech-language pathologists

who view pragmatics as highly esoteric, may be overly cautious of effectively coming to grips with theoretical issues, that is, by not exploring theories to the nth degree and not chancing mistakes in methodologies that are inevitable in a young field of research, that pragmatics is to speech-language pathology. It seems that research is reflecting this notion. This will be elaborated on in section 3.1. The case for viewing pragmatics in perspective will be expanded on at the end of section 3.2.

This chapter presents a review of the literature in terms of theoretical and methodological issues with special emphasis given to evaluating research on preschool pragmatics to date. It will be noted that attempts to separate theoretical from methodological issues were not always entirely successful, mainly due to the the fact that there is of necessity an overlap between these issues. This overlap is because the pragmatic field is in its infancy in the field of speech-language pathology and becauss pragmatics is addressed within the clinical domain. The chapter further describes and evaluates aspects of a particular theory and methodology from the literature that influenced the present study. The implications for the present study in terms of subject selection, materials, and method of analysis will emerge.

3.1 THEORETICAL ISSUES

Siegel and Ingham (1987, p.103) state that "because communication disorders sit at the intersect of so many other biological and behavioural sciences, we share and contribute to their methodologies and theories and sup from the same data pool". The pragmatic paradigm is considered by the disciplines of anthropology, philosophy, psychology and sociology. Possibly, for the speech-language pathologist a barrier could be caused by the esotericism of the philosophical views on pragmatics. This notion seems to be supported by the observation that theorists and researchers in the field of speech-language pathology appear to be wrestling with pragmatic concepts. If this is so, it is possible that theories may be misconstrued which in turn may affect research. The philosopher, Searle (1969, pp.19-20), in a number of sections in his book, "Speech Acts: An Essay in the Philosophy of Language" alludes to the possibility of concepts being "misconstrued or misunderstood". Levinson (1983) raises the issue of whether pragmatics in the long term is an essentially empirical discipline or an essentially philosophical one. Levinson states further that there is a lack of diversity of possible definitions and a lack of clear boundaries. He asserts that because the term pragmatics covers both context-dependent aspects of language structure and principles of language usage and

understanding that have little to do with linguistic structure, it is difficult to find definitions that will cover both aspects (Levinson, 1983). Pragmatics has been described as the "... most abstract communication area to demand the attention of ... speech-language pathologists..." (Johnston, Weinrich and Johnson, 1984, p.1). This accurate insight is captured by the following extract from Searle's (1969) theory of speech acts. Searle (1969) writes:

> S intends (i-I) to produce in H the knowledge(K) that the utterance of T is to count as placing S under an obligation to do A. S intends to produce K by means of the recognition of i-I, and he intends i-I to be recognized in virtue of (by means of) H's knowledge of the meaning of T (p.60).

That there could be misinterpretation when considering abstract phenomena, or when inferring from behaviours, not directly observable (Dolloghan and Miller, 1986), is thus easily seen. Furthermore, the cited quotation demonstrates that, from the manner in which aspects of a theory are phrased, implications for research application may not always be clearly apparent. Levinson (1983) suggests that within the linguistic and philosophical tradition, the term pragmatics does not have clear application. McTear (1985a) suggests that there are no clearly defined procedures for the identification of speech acts and Penn (1983, p.34)

states that speech act theory has been described as a "... controversial area ... and subject to many different forms of analysis".

Various issues have been raised in different forms concerning the pragmatic paradigm in the field of speech-language pathology by a number of authors (Lund and Duchan, 1983; McTear, 1985a; Prutting, 1982; Ochs, 1979). It has been suggested that the complexity of pragmatic concepts and the lack of a unified theory with clearly defined systems, such as is evident in long-standing theories of syntax and phonology, has had a confusing consequence. This is mirrored by research in the area that reveals diffuse attempts at explanatory notions, a multitude of terminological concepts and a diversity of methodologies. There appears to be a discernible split between researchers concerned with theories and those applying methodologies in the absence of a clear theoretical perspective. It is also suggested that vast and accelerative research in pragmatics in the field of speech-language pathology seems to have contributed to a resultant phenomenon of methodology outpacing theory. Furthermore it is proposed that the outcome of all these factors seems to be that, at present, the literature still does not present an integrated coherent theory which is sufficiently transparent to delineate methodological issues for research. Rees

(1978) suggests that there is a need to merge theory with methodology to study interaction. A diversiform pragmatic literature encompassing confounding definitions, theory and research methodologies, mitigated the resolve to lopt Searle's (1969) theory for aspects of this study. While speech act theory may not provide all the answers to communication, it offers a systematic theoretical framework. Levinson (1983) suggests that Searle's theory of speech acts, which is a systematization or refinement of Austin's (1962) theory, has probably had the most impact on linguistics, but should not be considered to be exhaustive. Levinson acknowledges, however, that it is largely through Searle's work that a coherent theory of speech acts emerged. Siegel and Ingham (1987, p.103) state that "each philosopher of science acknowledges that theories are conditional candidates for truth and likely ultimately, to be replaced by some more satisfactory candidate". By the same token Levinson (1983, p.5) states that "...academic fields are masses of preferred methods, implicit assumptions and focal problems or subject matters...and attempts to define them are rarely wholly satisfactory".

In the following section, dimensions of the speech act theory will be presented and current research evaluated in terms of this theory. Aspects of Searle's work will be explored further in presenting the section on the perspective that Lucas Arwood (1984) aligns with.

3.1.1 SPEECH ACT THEORY

Searle (1969) suggests that language is:

> ...(a) rule-governed intentional behaviour, (b) a theory of language is part of a theory of action, (c) speaking a language is performing speech acts, acts such as making statements, (d) these acts are in general made possible by and are performed in accordance with certain rules for the use of linguistic elements and that (e) the speech act is the basic unit of communication... (pp.16,17,21).

Searle refers to the concepts of utterance acts, propositional acts (referring and predicating), illocutionary acts and perlocutionary acts. He proposes a set of rules for the performance of speech acts and suggests that the ability to understand a sentence implies knowing its meaning. He illustrates this concept with the following example: "The meaning of 'hello' is determined by the semantic rules, which specify both its condition of utterance and what the utterance counts as" (Searle, 1969, p.49). Thus by uttering this conventional form which counts as a greeting, the speaker intends that the hearer recognizes the speakers intention that he (the hearer)

is being greeted. This is achieved if the hearer understands the meaning of the word and what it counts as in a certain context.

Searle coined the terms regulative and constitutive rules. He suggests that regulative rules are similar to rules of etiquette in that they independently regulate existing forms of behaviour. He states that constitutive rules compose an activity and suggests that they could be viewed in the form of "X counts as Y in context C" (Searle, 1969, pp.33, 35). These rules will be explored in more depth in presenting Lucas Arwood's (1984) framework towards the end of this chapter.

Searle's (1969) reference to both speaker and hearer throughout, is appealing by virtue of the cognizance that is given to the interactive nature of communication. Furthermore by addressing the intention within a speaker to produce an effect in a hearer, attention is given to the interpersonal aspect of the communicative event. Speech act theory would seem to satisfy aspects of Bates' definition of pragmatics, "... rules governing the use of language in context" (Bates, 1976, p.420). Prutting (1982, p.125) broadly defined context as "... the interrelated conditions in which something exists or occurs". Again, while this specific definition does not appear in Searle's book,

the notion of context is implied in his theory. Dimensions of language are recognized as being integral in the theory. Moreover, the concept of a theory of language being part of a theory of action implicates the need for a comprehensive, dynamic description of communication.

3.1.2 PRAGMATICS AND SEMANTICS

From an evaluation of attempts to explain the areas of semantics and pragmatics made by various authors, it seems that the observation put forward by Levinson (1983) is an accurate one. Levinson suggests that there are difficulties involved in drawing a dividing line between semantics and pragmatics. It would seem that conceptualizations regarding these dimensions depend on how broad an individual's notion of the concept of 'meaning' is. These impressions are supported by Levinson, who suggests that to some extent the nature of a pragmatic theory must depend on the kind of semantic theory adopted. Despite the fact that he states that most definitions seek an exclusive domain which is complementary but non overlapping with pragmatics (Levinson, 1983, p.13), it seems that confusion may arise in that some authors appear to present a fused notion of semantics and pragmatics. Lucas (1980), for instance, suggests that semantic rules are necessary to communicate an intent in order

to affect a hearer's attitudes and behaviours. Searle (1969, p.37) suggests that "...the semantic structure of a language may be regarded as a conventional realization of a series of sets of underlying constitutive rules". The rules which Lucas describes as semantic rules, appear identical to those proposed by Levinson (1983), yet he discusses them under the rubric of pragmatics. 'Tongue in cheek', one could say that it is all a matter of 'semantics', where this term is loosely used as the layman would, that is, to refer to whatever an individual decides to call an object. Levinson suggests however, that even though semantics has been defined as the study of meaning in its entirety and been described as being truth conditional, he believes that many areas cannot be accommodated within a single semantic theory. His reasons are that he believes there are many different kinds of meaning components such as implication and inference. This is apparent when one considers that the semantic content of a particular utterance alone does not always explain how something is used or understood. He suggests that these meaning components of inferences are subject to cancellation by features of context. These features in turn are said to arise from assumptions made by the participants in the context and he believes that one cannot incorporate those aspects of meaning within a semantic theory. Levinson suggests that because the multiple aspects of meaning cannot all be combined in a

single coherent semantic theory (for example, aspects of being truth conditional, or conversational implicature), these matters of context are best left for the area of pragmatics (Levinson, 1983, p.14). Buttny (1986, p.270) discusses Wittgenstein's view of meaning whereby "...meaning is based on the use of criteria in context to support one's ascriptions". Buttny suggests that these criteria of meaning are influenced by context, previous experiences and expectations. This description might be elucidated by a consideration of, for instance, how a child arrives at knowing that a mother means something different to what her utterance on the surface suggests, for example, in her use of sarcasm. It would seem that for the child, this knowledge is preceded by a number of conditions or events. Recognition of the mother's underlying intent would only come about after the child has experienced the mother using this form for a different purpose, possibly together with some nonverbal cue. The mother might also explain to a young child the manner in which she is using the utterance. When the child subsequently experiences the mother's use of this form in this manner, he/she will be able to interpret its meaning by way of deduction. It would seem that the pragmatic perspective might encompass this broader aspect of meaning.

Levinson critically evaluates various definitions of pragmatics that have been put forward and provides reasons based on the previous arguments why he feels some of these definitions are unsatisfactory. He goes on to suggest that a hybrid account seems feasible, that is, that both areas work in tandem, but that each can be built on homogeneous lines (Levinson, 1983, p.13). He discusses the concept of incidental transfer of meaning and true communication (involving intention). He refers to Grice's (1975) concept of 'meaning-nn' (that is, intentional communication) with the components subsumed under this and suggests that these are within the pragmatic domain. Yet Lucas (1980) seemingly includes intentionality under both semantics and pragmatics, that is, her view on semantics seems to be a broad one. Levinson suggests that pragmatics may be concerned with prediction of the meaning of an utterance in a specified context and that one could possibly view the upper bound of pragmatics as provided by the borders of semantics and the lower bound by sociolinguistics.

3.1.3 DEVELOPMENTAL PRAGMATICS

From the literature it is apparent that pragmatic communicative ability is not fully developed in preschoolers. It is thus pertinent to consider views regarding stages in the acquisition of communication.

It is generally accepted that communication in infancy is not intentional (Bates, Camaioni and Volterra, 1979; Bloom and Lahey, 1978). In studying the development of communicative intentions, Bates et al. (1979) use Austin (1962) and Searle's (1969) 'illocutionary' and 'perlocutionary' concepts to describe three stages in communication development. These three stages comprise firstly the perlocutionary stage (whereby an effect in the hearer occurs in the absence of intentionality on the part of the infant), followed by the illocutionary stage (described as intentional use of nonverbal signals), and finally the locutionary stage ("...in which the child constructs propositions and utters speech sounds, within the same performative sequence that he previously expressed nonverbally") (Bates, et al., 1979, p.113). In examining preverbal development of performatives such as imperatives and declaratives, Bates et al. (1979) coined the terms 'protoimperative' (use of a listener to obtain an item) and 'protodeclarative' (efforts such as pointing in order to direct a listener's attention). They suggest that intentional imperatives and declaratives do not develop until age ten months, when children begin to understand agency role of adults.

Bates et al. (1979, p.125) suggest that simultaneous with developing intentional 'pointing' and 'giving' actions, there is a gradual progression from

"...vocalization, to vocalization as signal, to word as proposition with a referential value". Reference to a particular object is described by Bloom and Lahey (1978) as 'topic'. Foster (1986) suggests that initiation of topics concerned with items in the physical environment is facilitated by way of the development of deictic gesture. Bates and MacWhinney (1979) propose that topic selection is motivated by issues such as giveness, perspective and salience, whereas comment selection is motivated by newness, distance from the speaker and salience. These authors suggest that in the young child there exists a competing need between marking topic first so as to clarify, and marking comment first in order to indicate salience. They state that 'comment-topic' is the order used by children in the initial stages of communication. Bates and MacWhinney (1979, p.211) suggest that "...a shift from comment fronting to topic fronting is related to a shift from egocentric perspective, to taking the listener's information needs into account".

A large number of intentions have been described in early communicative development (Coggins and Carpenter, 1981; Halliday, 1975; Wetherby and Prutting, 1984). Differences in categories have no doubt been influenced by the issue that intentions at young ages are not always observable and by the complex nature of

developing objective criteria and operational definitions for measuring intentionality related to various pragmatic functions.

Although numerous studies have addressed pragmatic communicative abilities at various ages, less extensive literature exists on actual stages proposed in the development of communicative abilities (that is, from the beginning of the locutionary stage until and including the time when formal schooling begins). Consequently, despite the potential to ascribe a particular communicative function(s) to a particular age, insufficient information precludes definitive statements regarding the existence of a communicative problem in instances where a particular pragmatic behaviour is not evidenced at a certain age.

Prutting (1979) proposed a number of stages in the development of pragmatics from the prelinguistic to the adult level, drawing aspects of development from various sources in the literature. A summary of her stages reveals that from birth to nine months, besides perlocutionary acts, aspects of turntaking in the form of reciprocal interaction between mother and child begin. Prutting described the child's one-word utterances in the stage from nine to eighteen months as performing a number of functions such as regulatory functions (put forward by Halliday, 1975) and having a

number of intentions among which are included requesting or protesting (as described by Dore, 1975). Additional functions such as mathetic and ideational (described by Halliday, 1975) are developed during the next stage (from eighteen to twenty four months). In addition the child learns aspects of dialogue. In the next stage children from two to three years begin to demonstrate the ability to respond to requests for clarification and by age three, children begin using contingent queries to maintain conversation (Gallagher, 1977; Garvey, 1975). In the stage corresponding to age three years and older, Prutting drew from Bloom, Rocissano and Hood (1976) who report that at the age of three and a half years, the ability to maintain a topic over a number of utterances emerges. Garvey (1975) suggested that children between the ages of three and five years are able to produce direct and indirect requests; older children evidencing more indirect requests. According to investigators such as Sachs and Devin (1976), children at the age of four years are able to use appropriate speech styles as a function of different ages of interlocutors. However aspects of presupposition as measured on referential tasks (Krauss and Glucksberg, 1969) are not yet fully developed in preschoolers. Schiefelbusch and Pickar (1984, p.237) state that "through middle childhood errors tend to be in the direction of mistakenly assuming shared presuppositions with the listener". Snyder (1983)

suggests that certain conversational rules only begin to be mastered by middle childhood. It is only in the final stage, which she entitled "Adult-Communicative Competence", that Prutting (1979) made mention of Grice's (1975) conversational rules (that is, quality, quantity and manner) that, when adhered to, make for a competent communicator. DeHart and Maratsos (1984) provide examples that demonstrate the manner in which children are unlikely to meet Grice's criteria of informativeness by way of providing either too much or too little information as a result of inaccurate presuppositions. It is likely that topic maintenance and in turn, coherence will be affected by developing skills in presupposition. Furthermore, by taking into account the issue that preschoolers are still developing aspects of syntax (such as connectivity which affects the way in which language is used), it becomes apparent that it is unlikely that their communication will be as cohesive as that of adults. Table 1 summarizes stages in pragmatic development.

TABLE 1: Stages in Pragmatic Development

Birth-9 months	Perlocutionary Turntaking behaviour	No intentionality
9-18 months	Illocutionary Requesting Protesting Locutionary	Intentionality
18-24 months	Mathetic Ideational functions	
2-3 years	Beginning to respond to request for clarification	
3 years	Contingent queries	
3.6 years	Topic maintenance	
4 years	Appropriate speech styles	
4-5 years	Direct and indirect requests	
5 onwards	Problems in terms of presupposition	

While accounts of aspects of communicative development in the child in the locutionary period (such as that of Rees' (1978), which presents findings from a number of studies), do contribute to understanding what the preschooler is able to do, it is evident that additional information is needed. This perception is supported by findings from a study Bishop and Adams (1989) which suggested that problems evidenced in the communicative behaviour of children described as semantically-pragmatically disordered were not dissimilar to inappropriacies present in 4-6 year old liguistically-normal preschoolers. It is necessary to understand more clearly what the preschooler is able or not able to do in terms of pragmatic communicative ability. To this end it is hoped that the present study may contribute to a small extent to the understanding

of what expectations regarding communicative abilities in the preschooler might be. I am of the opinion that Lucas Arwood's methodology (1984) and an extension of her methodology on additional parameters, (which I have proposed), may go some way towards providing additional perspectives on the preschool child's communicative abilities. This framework will be presented following a review of methodological issues in pragmatics to date.

3.2 METHODOLOGICAL ISSUES

A large and varied number of pragmatic behaviours have been studied to such an extent, that the impression obtained when viewing research topics, is one that calls to mind Levinson's (1983, p.27) critique of an extentional definition. This he describes as a definition encompassing all pragmatic behaviours. For example, "pragmatics is the study of deixis, implicature, presupposition, speech acts, aspects of discourse patterns." His criticism of this type of definition relates to the non-explanatory aspect and the lack of criteria for exclusion or inclusion within the pragmatic sphere. The multitude of behaviours that may be subsumed within the domain of pragmatics suggests that it is unlikely that any one study could access pragmatics in its entirety. This view is supported by the observation that to date few studies have attempted to do so. In the ensuing section I

propose to review the literature according to a number of broad areas encompassing issues such as: nature of focus in investigating pragmatic behaviours, consideration of levels of analysis, incorporation of additional categories, survey of methodological practice in child language studies and the extent to which developmental pragmatics has been considered in research. This is necessary to highlight methodological strengths and weaknesses of previous research in this area.

Parameters investigated

Nature of focus

Despite researchers investigating a wide variety of behaviours, many studies have individually primarily tended to focus on a small number (often one or two) of pragmatic behaviours (Anselmi, Tomasello and Acunzo, 1986; Brinton, Fujiki and Channell, 1985; Cromwell, Prather and Kenney, 1985; James and Seebach, 1982). The trend to look at isolated parameters appears to be counter to the call made by various authorities (McTear, 1985a; Penn, 1983; Prutting, 1983; Roth and Spekman, 1984b) for addressing related dimensions within the pragmatic paradigm. Research that puts a premium on confining variables by limiting the amount of pragmatic behaviours under investigation, holds both advantages and disadvantages. Viewed positively, it allows for more control in investigating abstract

phenomena and facilitates an in-depth analysis of particular pragmatic behaviours. Conversely, a narrow focus lacks breadth in terms of the consideration of various dimensions and potentially interrelated components. Ultimately this detracts from understanding how elements function as a whole, perpetuates misperceived notions pertaining to pragmatics, and delays development of explanations necessary for contribution to theory elaboration. McTear (1985a) asserts that research that fails to take into account the complexities of conversational interaction, becomes 'simplistic and unenlightening'.

Few studies have provided a broad comprehensive view of language at the discourse level. The majority of studies that have focussed on one or two parameters have investigated mainly requests, responses and revisions (Anselmi, Tomasello and Acunzo, 1986; Brinton and Fujiki, 1982; Coggins, Olswang and Guthrie, 1987; Garvey, 1975; James and Seebach, 1982; Leonard, 1986). In order to gain insight into the manner in which preschool children function in the role of speaker and hearer, in initiating and maintaining communicative interactions and in repairing communicative breakdowns, more research is needed incorporating broader, more extensive and more complex parameters than have been addressed thus far.

Consideration of levels of analysis

Various levels have been identified at which communicative functioning can be described and analysed. An inspection of some of these levels indicates that they appear to be circumscribed in terms of order of complexity and progression from basic, functional to complex, interactional aspects of communication.

While Dolloghan and Miller (1986, p.111) suggest that "a multilevel analysis is likely to present the most valid picture of communicative competence", McTear (1985a) suggests that there is often a failure to consider the different levels of analysis. Two frameworks extracted from the literature are presented as examples of levels of analysis.

Roth and Spekman (1984a) delineate various levels necessary for analysing communicative skills. Their framework demarcates the following: (a) a focus at the level of communicative intentions such as requesting; (b) a study of presupposition, that is the ability to make inferences regarding shared knowledge (for example informativeness which would encompass aspects such as deixis) and (c) an assessment of social organization of discourse, which they describe as necessary for dialogue and the dynamic nature of ongoing conversation

which involves a focus on aspects such as topic initiation and maintenance and conversational repairs.

Chapman (1981) describes four levels from which pragmatic analyses may proceed; the utterance level, the discourse level-utterance related, the discourse level-speech act related and the social level. The utterance level of analysis is described as a focus on intent separate of function in relation to prior utterances (Klecan-Aker, Domico and Bothwell, 1983). Some studies have focussed on the utterance level, for example Schober and Johnson (1985a) investigated the distribution of speech acts in preschoolers' conversation. A number of studies seem to fit into Chapman's second category (discourse level-utterance related) whereby the purpose of the utterance is categorized with respect to a previous utterance, for example responding (Chapman, 1981). Such studies might include that of Brinton and Fujiki (1982) who studied request-response sequences in kindergarteners and a study of response adjacency (Bloom, Rocissano and Hood, 1976). Chapman (1981) considers the dimensions of topic initiation, topic maintenance and turntaking to be within the discourse level-speech act related level of analysis. An example of a study in which these parameters were investigated is that of Edmonds and Haynes (1988) who examined topic manipulation skills.

From the examples presented, it is evident that within the pragmatic field of inquiry, given any two perspectives, the possibility exists that there may not be concurrence on categorization. For instance, whereas Roth and Spekman (1984a) incorporate topic initiation and conversational repairs into the social organization of discourse, Chapman (1981) suggests that the social level of analysis considers such aspects as politeness in conversation. If there is no concurrence in categorizing pragmatic parameters, complication occurs in attempts to compare across studies, and it is also likely that certain interpretations might be erroneous. Implications are best illustrated by way of Bennett-Kastor's (1986a, p.173) query whereby she asks of child language research; "How ... can theory be adequately constructed when data simply are not comparable?".

In the ensuing section a number of frameworks will be presented in order to illustrate the issue of difficulty in comparisons.

Prutting and Kirchner (1983) utilized a framework based on Searle's (1969) divisions of utterance acts, propositional acts and perlocutionary acts. Behaviours described within the heading of utterance acts included verbal and paralinguistic aspects of speech acts, for example, intelligibility and body posture. Within the

heading of propositional acts, they looked at aspects such as pronominalisation and ellipses.

Spinelli and Ripich (1985a) identify five content areas for discourse, that is, attention (under which is included eye contact), turn allocation, topic coherence, repair and role adjustment. Different terminology is evident and it is possible that these parameters are not sufficiently sensitive to characterize deficits.

The encompassing framework used by Penn (1983) in her devised Profile of Communicative Appropriateness, considers components such as the following: (a) response to interlocutor (measuring discourse in terms of cooperative aspects such as responses and turntaking skills); (b) control of semantic content (measuring coherence in discourse and including aspects such as topic shifting); (c) cohesion (measuring manner in which sentences are linked within discourse); (d) fluency (measuring aspects such as pauses and interruptions); (e) sociolinguistic sensitivity (measuring ability to modify messages in relation to context) and (f) nonverbal communication.

Damico's (1985) framework based on Grice's (1975) "cooperative principle" is comprehensive and considers aspects such as quantity (relating to informativeness),

quality (for example conditions of truth), relation (relevance measured by topic maintenance, responses, requests), and manner (focussing on aspects such as fluency, revisions, response delays, turntaking, gaze and intonation). Certain parameters within this framework present complications in terms of evaluating the preschool child, in that these parameters might not yet have developed.

It would seem that any attempt to match studies from the literature with various levels of analysis is not without difficulty for a number of reasons. These are best presented by citing proposals put forward by various authors.

According to Roth and Spekman (1984b), some coding categories are not discrete and cut across different levels of analysis. In the same vein, Folger and Chapman (1977) propose that speech acts can be coded at different levels of generality and therefore categories might not be mutually exclusive. The issue that utterances may have multiple codings is raised by Klecan-Aker et al. (1983) and confirmed by Chapman (1981), who suggests that utterances might have multiple rather than single communicative intents when viewed from different levels of description or bases of comparison. Fey (1986, p.71) states that "utterance level conversational acts contain some level of

discourse analysis, since coding of a particular utterance is at least partially dependant on the type of conversational act that precedes it". Given the issues raised, it is pertinent for speech-language pathologists to evaluate frameworks and research to be undertaken which could suggest more uniform frameworks.

Additional categories

The previous discussion has highlighted the need to investigate more than one parameter and recognize more than one level of analysis within the pragmatic domain of inquiry. It is furthermore believed that besides investigating each parameter as a whole, exploring parameter subcategories or subcomponents could facilitate more complete understanding of communication. Many studies have expanded on analyses of a particular parameter. James and Seebach (1982) examined informative, directive and conversational pragmatic functions of questions in order to ascertain whether these occurred in different amounts in children at a number of preschool ages. In investigating responses to neutral and specific queries, Anselmi, Tomasello and Acunzo (1986) classified responses into categories such as repeating, specifying, reformulating or ignoring. Edmonds and Haynes (1988) examined topic manipulation skills in terms of topic maintenance, topic change, topic shading and back channel responses. Such studies demonstrate the potential to yield

qualitative information which in turn could implicate intervention targets more clearly. Diverse subcategories of various parameters also provide the potential to provide cumulative data towards a greater understanding of pragmatics.

When subcategories of the same parameter differ across studies, any attempt to compare and integrate data or to replicate studies becomes complicated. Thus, whereas Gallagher and Darnton (1978) subdivided revision responses into categories of phonetic change, constituent elaboration, reduction and substitution, Brinton, Fujiki and Channell (1985) also addressed addition of information in coding revision behaviours. There are some overlaps which do provide comparative data, but the sampling times, method of elicitation and manner of rating differ. Few studies have adopted exact categories from other studies. There are some exceptions, for example, those of Cromwell, Prather and Kenney (1985) and Gallagher and Darnton (1978).

A final point relating to subcategories is more specifically concerned with the subcomponents (for example eye contact, loudness and others) necessary for communicating. There is a dearth of studies that are concerned with the conditions that Searle proposes for the performance of speech acts, within speech act theory. These conditions will be elaborated on when

discussing Lucas Arwood's methodology. At this point however, I would venture to suggest that specified conditions necessary to perform a speech act yield essential subcomponents for analysis. Moreover, I believe that exploring these subcomponents may provide more information on the level of pragmatic breakdown and on strengths and weaknesses than coding only whole speech acts.

Survey of methodological practice of pragmatic studies in child language to date

The majority of studies have been of a naturalistic, observational and descriptive nature (Brinton and Fujiki, 1982; Harris, 1985). Most studies have been cross-sectional (Cromwell, Prather and Kenney, 1985; Edmonds and Haynes, 1988; Klecan-Aker and Swank, 1988; Meline, 1986; Tfouni and Klatzky, 1983) and there have been few longitudinal studies (Bloom, Rocissano and Hood, 1976; Conti-Ramsden and Gunn, 1986; Wetherby, Cain, Yonclas and Walker, 1988). Many studies have been 'semi-' or 'quasi'-longitudinal (Anselmi, Tomasello and Acunzo, 1986; Brinton, Fujiki and Channell, 1985; Gallagher and Darnton, 1978; James and Seebach, 1982; Klecan-Aker and Lopez, 1984a,b; Klecan-Aker and Swank, 1988; Harris, 1985). These "semi"-longitudinal studies have investigated aspects of pragmatic abilities

concurrently in children at a number of age levels and have provided comparative data on mastery of certain pragmatic abilities at different ages.

Studies have predominantly involved small numbers of subjects. Numbers of subjects utilized range from n=4 (Bloom, Rocissano and Hood, 1976) to n=36 (Coggins, Olswang and Guthrie, 1987; Garvey, 1975), with a popular n=20 (Schober and Johnson, 1985a,b). Where subjects of various ages have been investigated within the same study, that is in the 'quasi'-longitudinal studies, there have been large sample sizes. For example Klecan-Aker and Swank (1988) studied 240 preschoolers. However, generally each age category in "quasi"-longitudinal studies has comprised a smaller number of subjects, for example Anselmi, Tomasello and Acunzo (1986) studied six subjects within each of Brown's four stages. In instances where in depth descriptive information is sought, confining sample size might be the best alternative. However studies that consider one or two pragmatic behaviours on a molar level might provide "... more generalizable information" (Bennett-Kastor 1986b) regarding some pragmatic aspects, by increasing sample size. There have been few single case study designs (Bernard-Opitz, 1982; Blank, Gessner and Esposito, 1979; Conti-Ramsden

and Gunn, 1986; McTear, 1985b). The value of these is the potential to yield holistic, integrated information; limitations relate to generalizability.

Various studies have included control groups. A large number of these have compared language disordered to linguistically normal subjects (Brinton and Fujiki, 1982; Brinton, Fujiki and Channell, 1985; Cromwell, Prather and Kenney, 1985; Edmonds and Haynes, 1988). Other studies have matched controls in terms of similar mean lengths of utterance (MLU) despite being younger than language disordered subjects (Meline, 1986; Rom and Bliss, 1983). McTear (1985a) suggests that it might not be accurate to presuppose that language disorders predict disorders in pragmatics. The example is provided that no relationship necessarily exists between auxiliary omission and restricted range of speech acts. Furthermore MLU might not accurately describe language ability beyond a certain age. Thus the use and type of control groups require careful consideration. Within descriptive studies however, use of a control group for qualitative information appears warranted in a field involving unknown answers.

Studies have employed both minimal structure conditions and structured elicitation in investigating communicative behaviour (Brinton and Fujiki, 1982; Brinton, Fujiki and Channell, 1985; Conti-Ramsden and

Gunn, 1986; Cromwell, Prather and Kenney, 1985; Edmonds and Haynes, 1988; Garvey, 1975; Harris, 1985; James and Seebach, 1982; Klecan-Aker, Domico and Bothwell, 1983; Klecan-Aker and Swank, 1988; Krauss and Glucksberg, 1969; Meline, 1986; Rom and Bliss, 1983; Schober and Johnson, 1985a,b). A few studies have combined structured and unstructured conditions (Coggins, Olswang and Guthrie, 1987; McTear, 1985b; Wetherby, Cain, Yonclas and Walker, 1988). Advantages of spontaneous sampling have been widely expounded (Lee and Canter, 1971; Miller, 1981; Ochs, 1979) and generally pertain to the yielding of more accurate information regarding communicative abilities (Ingram, 1976; Miller, 1981). Limitations of unstructured or spontaneous sampling relate to 'language use variability' (Gallagher, 1983, p.15) depending on contexts. Roth and Spekman (1984b) state that in these conditions data is limited to what the child produces and therefore the absence of a parameter cannot be construed as not being in the child's repertoire.

Structured elicitation provides the opportunity for the occurrence of a variety of speech acts and "...increases the probability that a child will produce a desired behaviour in a given situation" (Coggins, Olswang and Guthrie, 1987, p.2). Chapman (1981) states that inferring intents may be easier in structured situations. Furthermore uniformity is provided which

facilitates comparison. Contrary to this, the structured situation may be viewed as possibly being contrived for pragmatic sampling, elicit only specific behaviours and by perhaps inhibiting the child, not provide a true reflection of his or her communicative abilities. Additional suggested limitations of structured situations include arguments such that children may perform differently to the way they would in spontaneous situations (Lund and Duchan, 1983).

Sampling times and contexts have differed in several studies and, in addition, interactive partners and stimuli have varied. Duration of data collection sessions have included ten minutes (Harris, 1985; Schober and Johnson, 1985a,b), twenty minutes (Brinton and Fujiki, 1982), thirty minutes (James and Seebach, 1982., sixty minutes (Gallagher and Darnton, 1978) and thirty to ninety minutes (Blank, Gessner and Esposito, 1979). Some studies have divided thirty minute samples into fifteen minute structured and fifteen minute unstructured situations (Wetherby, Cain, Yonclas and Walker, 1988). In certain instances more than one sample within a study has been utilized, for example McTear (1985b) incorporated four samples, each being fifteen minutes in duration. Rom and Bliss (1983) used two twenty minute sessions and Edmonds and Haynes (1988) used two fifteen minute sessions.

Situational contexts have been mainly speech and language clinics. Few investigators have collected data outside this type of context. Exceptions are those by Conti-Ramsden and Gunn (1986) who observed behaviour in the home, classroom and playground and by Bloom, Rocissano and Hood (1976) who observed in the home situation. A familiar environment encourages communication and is representative but lacks uniformity for comparative data. Some studies have involved subjects with adult interlocutors (Brinton, Fujiki and Channell, 1985; Meline, 1986), others have involved child-child dyads (Garvey, 1975; Rom and Bliss, 1983). For the most part interlocutors have been unfamiliar to the subject which could detract from representative communication.

Stimuli have mainly comprised toys (Brinton and Fujiki, 1982) and in a few studies involving unstructured sampling, toy types utilized have been specified. Wanska, Bedrosian and Pohlman (1986) suggest that different types of play material may evoke different types of communication. In view of this observation, it is possible that studies in which toy types have been specified may provide an additional dimension to interpretation of varying communicative behaviour. Where structured elicitation has been utilized, investigators have described diverse stimuli. For example, Brinton, Fujiki and Channell (1985) used

action pictures, Cromwell, Prather and Kenney (1985) utilized a commercial game while stimuli in Klecan-Aker, Domico and Bothwell's (1983) study comprised cards from a projective test.

A popular mode of coding behaviour in studies addressing pragmatic aspects, has involved specifying the presence or absence of particular parameters (Brinton, Fujiki and Channell, 1985; Schober and Johnson, 1985a). Some investigators have utilized appropriateness ratings (Blank, Gessner and Esposito, 1979; Brinton and Fujiki, 1982; Klecan-Aker and Lopez, 1984a,b). Dimensions of appropriateness applied by Klecan-Aker and Lopez (1984b) would seem to be questionable in that their rating appears to be based on criteria related to effective adult communication. In other words, their expectations of appropriateness appear to be inflated when applied to children's abilities to provide 'functionally appropriate' and 'accurate' responses. Wood (1981) states that the five-year old has not acquired some of the pragmatic skills needed to be a truly effective communicator. Thus appropriateness judgements made on behaviours that may still be emerging are brought into question. A number of investigators have questioned whether or not it is optimal to look at the child's pragmatic functioning from the adult's perspective (Ochs, 1979; Lund and Duchan, 1983). This is obvious when considering aspects

such as coherence and cohesion in the child's discourse (Penn, 1983) and aspects such as quality described by Damico (1985) as conditions of truth. This is also apparent when considering aspects such as the child's ability to use or deal with phenomena such as sarcasm. Blank, Rose and Berlin (1978, p.65) suggest that if child language is viewed from an adult perspective "... the conclusion almost always has to be one of weakness since the child's performance rarely equals that of the adult ...". As an aside, Chapman (1981) states that when it is anticipated that a particular category is not likely to be present within the child's repertoire, it should not be included in a taxonomy. Appropriateness judgements in these instances would, in my opinion, more so be 'inappropriate'. However it is acknowledged that data on appropriateness of developing skills at various ages could contribute towards understanding what level of skill might be expected in children of different ages.

Differences are apparent in the manner in which data has been analysed. Many studies have used quantitative means. For instance, some investigators have determined frequency of occurrence of particular preselected speech acts (Coggins, Olswang and Guthrie, 1987; James and Seebach, 1982). Others have utilized frequency counts for various speech act types evolving (similar to what Bennett-Kastor, 1986a, p.172 calls "post facto"

categories) from an interaction (Schober and Johnson, 1985a). Studies have included proportional distribution of subcategories (Gallagher and Darnton, 1978; Garvey, 1975; Anselmi, Tomasello and Acunzo, 1986). In addition molecular quantitative measures such as number of turns per topic, utterances per turn, speech acts per utterance (Schober and Johnson, 1985b) demonstrate the absorption of some investigators with attempts at quantifying pragmatic parameters.

Lucas Arwood describes two approaches that have been evident in studies within the pragmatic perspective: "(1) the static analysis of components outside the user and (2) the dynamic description of the communicative process" (Lucas Arwood, 1984, p.11). Thus according to her, studies which focus on quantifying one or two speech acts are employing a static means for attempting to measure a dynamic system. This would yield little information on the child in his/her role as speaker and hearer. Lucas Arwood (1984, p.10) states that "until current static analysis approaches yield to more qualitative, logical analysis of the child's total system, it is unlikely that children with serious language problems will be significantly helped". It has been recognized that "...any attempt to list categories of function or use must suffer from some degree of error when applied to dynamic language activity..." (Rees, 1978, p.197). In apparent support of

quantification, Gallagher and Darnton (1978) suggest that differences in frequency in the use of structures may be a result of qualitative differences in conversational strategies of language disordered children. However when considering the question 'how many requests should a child perform in a spontaneous interaction?', and bearing in mind that sampling settings and times differ, it becomes apparent that frequency counts alone do not suffice. Chapman (1981) asserts that simply counting speech acts does not tell much about pragmatic skills, and provides little information regarding the child's growing mastery of rules or conventions governing speech acts. As opposed to pure frequency counts, Chapman stresses the need to look at aspects such as relative frequencies of expected speech acts and proportion of questions a child may answer, when incorporating quantification. Prutting and Kirchner (1983) state that quantification of data still requires interpretation and therefore it is not necessarily more objective than molar qualitative data, which they feel has great import for clinical implications. A number of studies do provide qualitative information regarding for example, type of revision behaviours, type of topic (Bloom, Rocissano and Hood, 1976; Cromwell, Prather and Kenney, 1985; Wanska, Bedrosian, and Pohlman, 1986) and other aspects such as turntaking (McTear, 1985b). Certain studies

have combined both quantitative and qualitative information (Anselmi, Tomasello and Acunzo, 1986; Brinton and Fujiki, 1982; James and Seebach, 1982).

From the survey of methodological practice to date it would seem that additional research is needed where data is gathered in multiple contexts by means of both structured and unstructured modes of data collection. There is a need for a dynamic means of accessing communicative behaviour. In addition, it would seem that the combined use of both quantitative and qualitative measures would provide valuable information for research and clinical practice.

I have aligned with the framework adopted by Lucas Arwood (1980, 1983) in that it appears that she offers a dynamic quantitative and qualitative approach to accessing pragmatics.

Before describing Lucas Arwood's theoretical perspective and methodology, it is appropriate at this point, to elaborate briefly on aspects of a personal perspective. In arriving at a decision on a mode of viewing and analysing pragmatics, I have taken a stance which emanates from an orientation of both a researcher and a clinician. In a letter to the editor, in response to an article on "The Therapist versus the Researcher" (Siegel and Spradlin, 1985), Attanasio (1986, p.378)

suggests that the critical question should be "...of what value is our research to our clinical practice ... and ... to what extent do our research findings translate into the clinical situation? ...". Simultaneously, that results should be communicated so as to have scientific value, is an undisputed fact. The scientific method dictates that that the achievement of its goal of understanding, necessitates the empirical goal of description, and the theoretical goal of understanding (Christensen, 1977). I am of the opinion that because of the esoteric nature of much of the scope of pragmatics, there should be no oversight of the prerequisite of understandable workability for applied research. While not presuming to advocate a simplification of the rich philosophy, that is pragmatics, there existed a need to seek a feasible methodology. Lucas Arwood's (1984) methodology promises this feasibility. A description of her perspective and methodology follows.

3.3 LUCAS ARWOOD'S FRAMEWORK

The tenet held by Lucas Arwood which relates to the theory of communication that she adopts, is perceived to be one which attaches major importance to the relationship between semantics and pragmatics. She expounds a discerning, expositive view regarding the premise that relates to the emmeshed nature of these

two areas. Before summarizing her views on the relationship between semantics and pragmatics, it is necessary to present her theoretical perspective on pragmatics. The ensuing discussion of views presented by Lucas Arwood (who has also written under the name of Lucas) is based on three references cited in this study (Lucas, 1980; Lucas Arwood, 1983; Lucas Arwood, 1984).

Lucas Arwood principally refers to the speech act, which she describes as the theoretical unit of communication between a speaker (S) and a hearer (H), and which is considered to be the basic unit of pragmatics. She adopts Searle's (1969) theory, extrapolating the basis of reasoning that semantic rules exist which specify the conditions of a successful speech act. She cites Searle as postulating that the speech act comprises the utterance act, the propositional act and the illocutionary act.

The propositional act refers to the content of the utterance and consists of referring and predicating (extending the idea). According to Lucas Arwood, Searle further divides the speech act into underlying semantic rules that govern the performance of the utterance, the propositional and the illocutionary acts. These semantic rules include regulative rules (which are regulated by societal conventions) and constitutive rules which provide prerequisites for effective speech

act performance, that is, which specify the elements necessary in order that the speech act affect a H's attitudes or behaviours. Lucas Arwood proposes a set of basic principles which relate to communication, which suggest that linguistic behaviour is: (a) rule governed (by a set of semantic rules); (b) the expression of the S's intent; (c) basic to the communicative purpose and (d) an active process. Given Lucas Arwood's conception that linguistic behaviour is governed by semantic rules, her beliefs regarding this will be explored.

The constitutive rules are said to include the propositional content rule, the preparatory rule, the sincerity rule and the essential rule. The propositional content rule determines the idea and assumes that there is an implied future act (A) of the H and suggests that the H is able to do the future A. The preparatory rule establishes a mutually shared set of conditions for the linguistic form to be effective. It indicates that the H will do the A if the S acts in a certain way. The sincerity rule relates to the S's intended force of the utterance, that is the integrity of the S to mean what he intends, and that the S wants the H to do the A in a certain way. The essential rule relates to the effect on the H showing realization of meaning and relates to the societal conventions of expression. The essential rule requires that the fixed

conditions be met appropriately, that is, body orientation, eye contact, linguistic markers, utterance and loudness. These rules are summarized in Table 2.

TABLE 2: Speech Act Components after Searle and Lucas (1969) (1980)

Propositional Content Rule	
Determines idea.	Assumes implied future act (A) of hearer (H).
Preparatory Rule	
Establishes mutually shared set of conditions.	Indicates H will do A if S acts in a certain way.
Sincerity Rule	
S's integrity to mean what he/she intends.	S wants H to do A.
Essential Rule	
Essential conditions necessary	Body orientation, eye contact, linguistic markers, loudness.

Lucas Arwood suggests that the concept of semanticity assumes that the rules are systematic and sequential representatives of acquired meaningful relationships among the S, the S's knowledge and the context. Thus for example the propositional content rule assumes that there is a shared idea between the S and H and that the H can only be affected if both S and H can recognize the referent (object, action or event spoken about). It is suggested that in considering the preparatory rule, the S will not request an A of a H unless the contextual features are appropriately present. As

regards the sincerity rule, where the S desires to evoke a performance, the linguistic form represents the intent. Thus, given that the referent is shared, the context is appropriate and the intent is sincere, the S will attempt a speech act, coding ideas into linguistic, paralinguistic or non linguistic behaviour. The speech act is attempted by means of the essential rule, that is, what the S must do so as to affect the H. I will now briefly present Lucas Arwood's further description of the other three principles relating to communicative behaviour. Firstly in considering the notion of linguistic behaviour being based on the S's intent, it is suggested that both S and H require shared knowledge in order that the H understand the S. It is necessary that the appropriate lexicon be used to express accurate semantic relations. These semantic relations should represent the S's communicative intent. As regards the concept that linguistic behaviour has a communication purpose, Lucas Arwood states that the S's utterance should intend to affect the H's attitudes, beliefs or behaviours. The linguistic devices used to obtain the desired effect are described as illocutionary force indicators. Lucas Arwood states that the S must be able to use the rules to express appropriate communicative purposes and appropriately affect the H. When the H responds, the S becomes the H. Thus the S must not only be affected as a H, but must also express his intentions and show an

ability to turntake. In terms of linguistic behaviour being an active process, Lucas Arwood suggests the following: that the communicative process is an active manipulation of the H and S's environment; furthermore, that within the pragmatic perspective, language is doing, altering and changing as it is being uttered. Thus she suggests that to be an active speaker, the child must engage in communicative behaviour that is effective in influencing the H.

Lucas Arwood suggests that the child who evidences a pragmatic problem has difficulty being effective in altering the attitudes of a H and experiences difficulty in acquiring rules for communication. She also claims that for functional language to occur, establishment of a reciprocal role exchange (that is, speaker and hearer) is necessary. According to her, this is facilitated by the mother/child interaction. She furthermore suggests that the manner in which one communicative partner might interact, could affect expectations and communicative behaviour of the other. In addition, she proposes that environmental models facilitate the child's understanding of, for example, preparatory and sincerity conditions of context. In the following section I have paraphrased Lucas Arwood's views concerning the manner in which she believes semantic development relates to pragmatics.

Lucas Arwood suggests that joint referents are established by way of adults linguistically specifying the child's early experiences which are shared with the adult. The form of referents are presented in conventional symbols and the content of the symbols is known as referential meaning. She states that perceptual and functional knowledge is acquired by the child interacting in the environment. Furthermore if the child and adult as H and S have similar perceptual and functional experiences, then the referent exists for both individuals. She suggests that words constitute concepts of information from shared experiences. The concepts in turn constitute the referents to which the child or adult may refer. Thus referring entails ideas being expressed in relation to common terms or labels shared by a S and a H. Lucas Arwood states that most early semantic relations comprise referents that are contentives (content bearing words) and these words are represented by the child's ideas (initially the ideas may be expressed as single terms). The child progresses to developing lexical items that specify the items used for this purpose (functors). These functors mark the contentives and facilitate the language flexibility. They also aid in specifying the referents by, for example, conveying the relationship between the size and the referent. Increased flexibility allows for increased ability in conveying thoughts and ideas. Flexibility of linguistic

structures is also made possible by predication and modulation. Predication of referential meaning occurs when there is an extension of the basic idea. Modulation is described as changes in the language form through morpheme introduction that can alter meaning. She suggests that flexibility of linguistic structures allows for the expression of many ideas and experiences. Increased expression is said to facilitate more language. Lucas Arwood states that the process of identifying referents for the child and the attachment of appropriate linguistic markers or terms, signals the beginning of linguistic interaction between the adult and child. She suggests further that subsequent linguistic development is facilitated through the social interactive process that occurs. She also states that pragmatic and semantic problems could manifest if the amount of interaction is changed. She proposes that this could come about as a result of emotional problems or abnormal language development. Furthermore, a parent's expectations might be affected if a child does not respond when spoken to, which in turn might result in the number and quality of the referents being reduced. Lucas Arwood states that referential meaning facilitates expansion of semantic relationships into adult meaning. She believes that pragmatic development refers to the child's acquisition of semantic rules which are necessary to communicate an intent in order to affect a H's attitudes, beliefs and behaviours.

Furthermore if a child has difficulty in acquiring or using these rules, a pragmatic problem will be evidenced. Thus she appears to be saying that the basis of a problem in semantics is evidenced in pragmatics.

Lucas Arwood (1984, pp. 1, 2), describes pragmatics as a "...term related to one's functioning in given contexts according to given societal conventions ", and refers to the "...child's ability to function in a flexible, productive manner...". She refers to the basic principles of speech act theory as a dynamic process relating signs to their users and interpretants. She emphasizes the need for a methodology that can be applied to the dynamics of the language process (Lucas Arwood, 1983). She suggests that analyses of child language would be static ones which consider products only, if methods utilized do not allow for an analysis of the dynamics of the system. She refers to 'pragmaticism' as a mode of studying language use as it relates to effects on speakers and hearers.

Lucas Arwood devised a measure of pragmatic communicative ability called the Behavioural Inventory of Speech Act Performances (BISAP). The procedure used in order to obtain this inventory involves a structured elicitation of a number of speech acts. Presence or absence of subcomponent behaviours necessary for the

accomplishment of each speech act are noted and assigned a score; this allows for both quantitative and qualitative information. A description and evaluation of the BISAP follows.

Lucas Arwood describes the BISAP as a criterion referenced measure. According to her, this suggests that when each individual's score is evaluated against a fixed-criterion score (in this instance, the criterion or expected score), there should be no variation in scores of normal children. Lucas Arwood reports that when this measure was administered to twenty four normal children (three to five years of age), all children performed well on the component items. In contrast when the measure was administered to six emotionally disturbed children, not all requisite behaviours were evidenced. Lucas Arwood states that the measure is a performance test and that it provides an evaluation of the following speech acts: requests for objects actions and information, assertion, denial, summons and rule order. She incorporates Searle's (1969) theorized preparatory, propositional, sincerity and essential rules. She suggests that, in view of the consideration that these rules comprise the speech act, these rules should also provide the least possible requirements for assessing a speech act in a predetermined context. The BISAP entails a dichotomous rating in terms of the presence or absence of various

subparameters of behaviours expected in response to a structured elicitation of pragmatic behaviours. In other words, an evaluation of speech acts is made according to whether or not the requisite components necessary to effect a communicative act were present. According to Lucas Arwood, examples of the elements considered important to achieve the speech act include among others, body orientation, eye contact, loudness, linguistic markers and specification of what the H is to do. Scores are assigned for the presence of expected behaviours which are then matched according to the criterion score. Thus the child is evaluated on all the subcomponents which constitute behaviours necessary for the performance of various speech acts.

An evaluation of the BISAP is presented in the methodology chapter of this study. At this point I will briefly suggest a number of advantages that pertain to the framework and measure adopted by Lucas Arwood. Lucas Arwood endeavours to combine theory with methodology in that rules constituting the speech act are brought into her methodology as components for assessment on the BISAP. This measure takes into account the active process and intentionality in the communicative process. Lucas Arwood has provided some comparative data on the performance of normal children on this measure despite the small sample size. Replicability (an important consideration for future

research) is possible in that parameters for assessment, context and strategy are clearly conveyed and interrater reliability is reportedly high. Implications for intervention are possible in that the inventory allows for a qualitative description of behaviours. The potential for the use of the BISAP as a screening measure of pragmatic abilities in the preschool population is evident. Albeit these perceived advantages, as well as the consideration that the BISAP offers a dynamic description of language use, it would seem that if additional parameters were included, a more comprehensive idea of communicative abilities might be obtained. For example I am of the opinion that extended attention could be given to the S in his/role role as H and to additional discourse features such as topic maintenance. This implicates the potential for expanding the measure.

The title of this chapter is 'pragmatics in perspective'. In essence I have attempted to convey that because pragmatics is a complex area, cognizance should be taken of theoretical approaches and research and clinical applications should not be approached in a simplistic manner. By the same token there should be an attempt to reconcile complexity with clinical utility. In that both a solid theoretical framework and a clinically feasible approach is necessary, the issue of viewing pragmatics in perspective becomes apparent. In

reviewing methodological issues, I have attempted to highlight strengths and limitations of previous approaches to investigating pragmatic abilities. In aligning with a framework that calls for a dynamic assessment of pragmatic abilities, I have conveyed that a number of studies appear to renege on this aspect. Aspects such as researchers using different levels of analyses and addressing a limited number of pragmatic abilities have been raised. I have suggested that researchers have not always taken cognizance of developmental pragmatics as evidenced in their choice of parameters for investigation. Implications for additional research are evident in light of inconclusive evidence on pragmatic abilities in the preschool language-impaired population and limited research on presumably remediated language-impaired preschool children. In addition, there is a need for more knowledge concerning pragmatic abilities in the linguistically normal normal preschooler.

CHAPTER 4

METHODOLOGY

This chapter describes the aims, design, subjects and measurements employed for the present study. Procedures for data collection and data analysis are described and reliability ratings presented.

4.1 AIMS

The purpose of this study was to examine communicative competence in language-impaired preschool children who had been declared rehabilitated or remediated after a period of language therapy. More specifically the aims of the study were to:

(i) Determine whether differences exist between the communicative abilities of "remediated" language-impaired preschool children and children of the same age considered to be linguistically normal.

(ii) Describe the linguistic abilities, pragmatic communicative abilities, and social skills of "remediated" language-impaired and "linguistically normal" preschool children.

(iii) Determine the extent of relationship that may exist between linguistic abilities and pragmatic communicative abilities.

(iv) Ascertain whether or not a relationship exists between communicative abilities (as evaluated by clinical measures), and social skills (as socially validated by a preschool teacher).

4.2 RESEARCH DESIGN

The design takes the form of ten parallel case studies; the main thrust of this study being a descriptive approach at the subject level. This type of approach makes intensive investigation possible (Ventry and Schiavetti, 1979) and allows for a complete profile of the child's conversational abilities to be presented (McTear, 1985a). At this stage in the area of pragmatic research, description would provide a necessary preliminary to future progress in the area (McTear, 1985a), especially in view of the confusion in theory and methodologies. Extended description of pragmatic, linguistic and social skills is required to aid understanding of communicative competence. McReynolds and Kearns (1983) suggest a descriptive design may lay the groundwork for future research on a larger scale.

4.3 SUBJECTS

Subjects included presumably "remediated" language-impaired (RLI) and "linguistically normal" (NL) preschool children. As indicated in previous chapters, limited information exists on communicative abilities, particularly for RLI preschool children and additional information is needed on NL preschoolers. A further reason for the inclusion of NL subjects was in order that communicative abilities of RLI subjects could be viewed in relation to those of NL subjects.

4.3.1 SAMPLE SIZE

Ten subjects comprising five RLI and five NL preschool children, were examined. The sample size was selected in order to allow a thorough investigation of multiple factors. The number is small enough to allow for detailed investigation and it is large enough to permit inferences to be made about the children's performances. A further practicality in regard confining the size of the sample is because of the multitude of variables inherent in any language study (Shearer, 1982).

4.3.2 CRITERIA FOR SUBJECT SELECTION

The five RLI subjects were selected according to the following criteria:

(i) Subjects should have been diagnosed by means of standardized tests and linguistic profiling as having had a language-impairment (expressive linguistic abilities two years below chronological age) by a qualified speech-language pathologist at the Speech and Hearing Clinic, University of the Witwatersrand. A uniform assessment procedure was necessary to ensure that children were comparable.

(ii) Subjects should then have been referred to a language unit for therapy by the Speech and Hearing Clinic. The language unit used in this study was the Unit for Language Impaired Children, University of the Witwatersrand. Alternatively, in the event that the language unit had the maximum number of children at the time of referral, children should have been referred to the Orange Grove Nursery School (a preschool affiliated to the language unit which offers regular speech therapy services). Referral to the Unit for Language-Impaired Children is made on the basis that the demonstrated language problem is "...severe...and thus warranting...intensive therapy" (Anderson, 1986, p.21).

Criteria for acceptance into this unit are primarily expressive language problems in the absence of hearing and cognitive deficits.

(iii) Subjects should have received language intervention at the Language Unit (daily) or at Orange Grove Nursery School (three times per week), for a period of one to two years. The nature of the intervention programme is similar within both of these environments.

(iv) Each subject should then have been declared remediated by a qualified speech-language pathologist through the use of standardized tests that measure linguistic abilities in relation to expected performance for a particular chronological age. In addition these children should no longer be receiving any therapy.

The five NL subjects were selected according to the following criteria:

(i) Subjects should have been reported to have no language problems by parents and teachers.

All ten subjects were selected according to the following criteria:

(i) Subjects should be within the age range of 5.0 to 6.5 years as this is the general age range of children who are in their final preschool year. More data on communicative abilities is needed for preschoolers in this age group as there has been limited research that has addressed this area in this age group thus far.

(ii) Subjects should be attending a regular nursery school (equivalent to Kindergarten) to ensure that no subjects have yet entered the formal school system. Children are required to enter formal schooling in the year that they turn 7.0 in the South African education system.

(iii) Subjects should have passed a pure tone hearing screening test administered at 20dB for the frequencies 500Hz, 1000Hz, 2000Hz and 4000Hz, within a three month time period of the present study commencing.

(iv) Subjects should pass a language screening test; in this instance the Test of Language Development (TOLD) (Newcomer and Hammill, 1977), used as a screening test. Doyle (1989, p.10) states that "screening is a procedure designed to sift out or identify particular individuals from a population". It was necessary to

identify which children did in fact appear to have 'normal language' in that the NL children were to provide an index of how RLI children communicated relative to them. For uniformity, the RLI subjects had to pass the same screening measure. In view of Doyle's (1989) suggestion that screening results are not definitive and considering the controversy regarding standardized measures, the screening predictability was of additional interest.

(v) Subjects should be English monolingual speakers.

(vi) Subjects should have no gross overriding deficit in psychological, social or intellectual functioning, as established by the Junior South African Individual Scales (JSAIS) (Madge, 1981), the Children's Apperception Test (C.A.T.) (Bellak and Bellak, 1980) and the Goodenough Draw-a-Man Test (Harris, 1963).

4.3.3 SUBJECT DESCRIPTION

Current status and previous management.

Three of the RLI subjects (two males and one female), originally diagnosed as language-impaired at the Speech and Hearing Clinic, had received intervention at the Language Unit. At the time of this study, these three subjects had been declared remediated by a speech-

language pathologist at the Language Unit and were thus not receiving any further therapy. At this stage each of these subjects was attending a different regular nursery school. They had all passed a hearing screening conducted by the Society for the Hearing-Impaired at their respective schools, within a three month time period of this study commencing.

The remaining two RLI subjects (one male and one female) diagnosed and referred by the Speech and Hearing Clinic to the Language Unit, were unable to find placement there and had thus received therapy at the Orange Grove Nursery School. At the time of this study these two subjects had been declared remediated by a speech-language pathologist at the Orange Grove Nursery School and were not receiving any further therapy. At this stage, these subjects were regular pupils at the Orange Grove Nursery School. The male subject had passed the hearing screening test conducted by the Society for the Hearing-Impaired. The female subject had not passed this screening, but following referral to an Ear Nose and Throat Specialist, medication and full audiometric testing met the criterion of hearing within normal limits, before this study commenced.

All five NL subjects (three males and two females) were regular pupils at the Orange Grove Nursery School. These subjects had been identified from a class of twenty children as having 'good language' by the teacher. Parents confirmed this description and reported that there had never been any concern about the children's language abilities. At the time of this study all five subjects had passed a hearing screening conducted by the Society for the Hearing-Impaired at the school within a three month period of this study commencing.

NL subjects attending the Orange Grove Nursery School were homogeneous in the sense that all five children were in the same class, in the same nursery school, with the same teacher. The two RLI subjects were also in the same class. While the Orange Grove Nursery School offers a speech therapy facility (for children waitlisted for the Language Unit or referred from the Unit for less intensive therapy but more extended peer group experience), this preschool is essentially a regular nursery school with the majority of pupils not being language-impaired.

Description of previous therapy context

RLI subjects who had attended the Language Unit had been involved in an intervention programme which aims to provide a 'language injection' programme, by offering a normal nursery school environment with a language programme. The emphasis is on intensive and daily speech therapy (Anderson, 1986). A maximum of fifteen children are involved in the programme at any one time. Each child is taken out of the group for a quarter of an hour each day to receive 1:1 therapy on the premises. Therapy techniques include both direct and indirect modes involving any of the following: imitation, modelling, expatiation, expansion and incidental training. The primary focus of therapy is on expressive syntax and semantics. Speech-language pathologists are continually on the premises so that incidental training occurs during free play. The nursery school teacher and aide involved in the programme are kept informed by the clinician of individual therapy plans. Similarly, the speech-language pathologist is advised of the theme that is being worked on in class. Parents are closely involved in the programme, viewing therapy sessions through one-way mirrors, consulting with clinicians and partaking in supportive and informative groups run for parents at the Unit.

RLI subjects who had received therapy at the Orange Grove Nursery School had been taken out of class three times per week for directive 1:1 therapy on the premises. The teacher, therapist and parents were kept informed of class lesson and therapy plans. Therapy techniques included imitation, modelling and elicited production as well as incidental training to target expressive syntax. In addition, this particular school context allowed for the children to be exposed to normal language peers.

Language, intellectual and psychological status

RLI and NL subjects all passed the language screening test. The language quotient obtained by all subjects on the Test of Language Development (TOLD) (Newcomer and Hammill, 1977) was interpreted according to the manual as indicating average language ability; this being the criterion of acceptance into this study. The TOLD comprises subtests which measure aspects of receptive and expressive abilities in semantics, syntax and phonology. The composite score obtained from scores on these subtests is converted to a language quotient.

An indication of each subjects' general intellectual level was obtained by means of the Junior South African Individual Scales (JSAIS) (Madge, 1981). The JSAIS was administered to all potential subjects by a

postgraduate psychology student. One potential subject was excluded from the study on the basis that she had obtained a borderline verbal IQ score. The ten subjects involved in this study all achieved the criterion for acceptance on this measure, that is an average or above average global IQ. The JSAIS comprises a verbal IQ scale, performance IQ scale and global IQ scale. IQ scores obtained are interpreted according to the manual on a continuum ranging from 70-79 as borderline to 130+ as very superior intellectual ability. The majority of subjects obtained an average (90-109) GIQ, while two subjects demonstrated a high average (110-119) GIQ.

None of the ten subjects revealed major psychological or social problems according to a projective measure, the Children's Apperception Test (Animal Figures) (CAT) (Bellak and Bellak, 1980), that was administered and interpreted by a postgraduate psychology student. The CAT is a projective test comprising a series of pictures which children are required to describe. Bellak and Bellak (1980) suggest that the child's interpretation of the CAT pictures yields insights into factors regarding the child's interpersonal behaviour, relationships and drives. Despite subjectivity involved in interpretation of projective measures, the use of the CAT as a screening measure seems justified.

Further information from the Goodenough Draw-a-Man (Harris, 1963) screening revealed no major problems pertaining to psychological functioning for any of the ten subjects. Table 3 summarizes subject variables.

TABLE 3: Subject Variables

Subject	Age	Sex	Global IQ	Language Quotient	Previous Language Unit
S1	6.2	M	Average	102	Orange Grove Nursery School
S2	5.9	M	Average	98	Unit for Language-Impaired Children
S3	5.6	M	HighAverage	106	Unit for Language-Impaired Children
S4	5.11	F	Average	106	Orange Grove Nursery School
S5	5.9	F	Average	105	Unit for Langauge-Impaired Children
N1	6.0	M	Average	104	None
N2	5.6	M	Average	101	None
N3	6.1	M	Average	93	None
N4	5.5	F	HighAverage	104	None
N5	5.4	F	Average	103	None

4.4 DATA COLLECTION

The modes of data collection employed for the present study comprised collection of a spontaneous language sample (mainly for syntactic analysis) and structured elicitation of pragmatic behaviours, as well as teacher reports on a behaviour rating scale (to access social skills). As discussed in Chapter 3, advantages and limitations have been put forward for both unstructured and structured observations of communicative behaviour.

It was thus believed that the combined use of these methodologies for the present study, would facilitate description of communicative competence.

The reason for collecting the language sample from an unstructured situation was the likelihood that this context would yield representative communication. Selection of a structured procedure for eliciting pragmatic behaviours was motivated in part by observations from a pilot study in which children used a limited number of speech acts, that is, mainly comments in response to toy stimuli in an unstructured free speech situation. A further motivation was the potential of this procedure to allow a variety of speech acts to occur. This facility is required for the present study in that, in order to begin to describe pragmatic communicative behaviour, a variety of speech acts need to be observed. Furthermore, if communicative competence implies facility in communicating in all situations, it becomes necessary to access how a particular child might communicate in a structured environment with an unfamiliar interlocutor. This is a situation not unlike the formal school situation for which the child requires communicative competence. Inclusion of a behaviour rating scale was because of the perceived value of social validation.

The choice of more than one context for data collection was influenced by arguments put forward in earlier chapters in favour of multiple contexts for data collection. Each of the strategies used in the present study will be described in turn, following which, a discussion of the measures utilized will be presented.

4.4.1 COLLECTION OF LANGUAGE SAMPLE

Sampling time

A 15 minute mother-child interaction provided the basis for the spontaneous language sample. Crystal (1979, p.22) corroborates this sample time by recognizing a ten to fifteen minute period, suggesting that a profile often emerges quickly and stating that the majority of subjects have a "... stable linguistic pattern". Similar sample periods have been used in previous research (Edmonds and Haynes, 1988). In that this sample was not singularly used for describing communicative abilities (that is, a structured activity with a different unfamiliar interlocutor was to follow the mother-child interaction), fifteen minutes was deemed appropriate as a warm up to the next activity, efficient and sufficiently condensed to counteract fatigue.

Type of interaction

A low structured free-speech situation involving the mother and child was used to obtain a language sample (Coggins, Olswang and Guthrie, 1987; Miller, 1981). Altered communication with varying communicative partners has been highlighted by Wood (1981). Miller (1981) suggests that incorporating a mother as interlocutor obviates potential reluctance on the part of the child to communicate with an unfamiliar adult. Lucas (1980) suggests that the child's spontaneity in conversations might be regulated by the adult speaker's utterances. For these reasons it was believed that the choice of the mother as interlocutor might facilitate optimal communication on the part of the child. In addition, in view of issues raised in Chapter 3 pertaining to advantages of less structured contexts, it was felt that a low structured situation might allow for more communication than would a structured situation.

Minimal structuring pertained mainly to the manner in which the mother was instructed (refer to Appendix A). This was introduced to preclude the possibility that the mother might use predominantly 'test' type questions in her interaction with the child. Generally, the mother was instructed to communicate with the child as she normally would, but to also use comments

pertaining to both the situation and to removed events, nondirective statements and questions although to refrain from excessive questioning (Crystal, 1982; Kunze, Lockhart, Didow and Caterson, 1983; Miller, 1981).

Context for spontaneous language sample

The setting in which the mother-child interaction was observed, was a therapy room in the Speech and Hearing Clinic, University of the Witwatersrand. The room contained large and small table and chairs, mat, blackboard and pictures on the walls. This setting provided uniformity which allowed equal opportunity for conversation type to occur. Stimuli were selected in accordance with suggestions put forward by various investigators (Crystal, 1982; Lucas, 1980; Miller, 1981). Stimuli included materials that provide the potential to facilitate conversation and generate ideas and construction activities that stimulate free speech. Stimuli comprised a doll's house, toy schoolbus, doll figures, fences, broken and novel toys. Toys were placed in an unstructured fashion on the small table in order that each subject discover them at his/her own pace.

4.4.2 STRUCTURED ELICITATION OF PRAGMATIC BEHAVIOURS

Participants

The structured interaction involved each subject with the present investigator as primary interlocutor and the mother as passive participant. It is likely that the presence of a mother in a situation that requires that a child communicate with an unfamiliar interlocutor would reduce potential anxiety (which masks optimal communication) on the part of the child. Lucas (1980) suggests that involving a third person authenticates a communicative situation in that this individual serves as hearer to be manipulated by the child who is required to perform a speech act. More clearly stated, Lucas suggests that the child cannot request something from the same adult who had intimated that the child should do so, as this would violate the sincerity principle.

Nature of elicitation

The structured task used to elicit pragmatic behaviours was adopted from the procedure used for the Behavioral Inventory of Speech Act Performances (BISAP), devised by Lucas (1980). This procedure involves an attempt to elicit a number of speech acts mostly via a 'sabotage' condition. 'Sabotage' in this instance refers to an

obstacle type situation such as suggesting that a child do a drawing without providing materials for doing so. Similar procedures are described by other investigators. For example, Wetherby and Prutting (1984, pp.13-14) refer to 'communicative temptations' to describe introducing obstacles such as placing a desired object in a jar that a child is unable to open. Creaghead (1984) describes a 'communicative-demand' strategy whereby one of her procedures involves giving the child the opposite object to what the child had requested. The premise for this type of structuring is that the nature of the situation is likely to increase the child's need to communicate. The opportunity for various speech acts to occur is also provided by this type of interaction.

Context for structured elicitation task

The procedure for eliciting pragmatic behaviours was conducted in the same room that had been used for the free speech situation. Toys that had been used in the spontaneous situation were removed and the child was introduced to an art activity. This activity is borrowed from Lucas (1980) and is also part of the procedure used by Creaghead (1984). The proviso for selection of a particular activity for eliciting speech acts is that the situation should be a familiar one to

the particular population (Lucas, 1980). The art situation meets this condition for preschoolers.

The structured elicitation task which required that the child participate in conversational dialogue within a 'sabotage situation' (Lucas, 1980; Lucas Arwood, 1984), was conducted in accordance with elicitative suggestions of Lucas Arwood (1980; 1984).

The procedure for eliciting speech acts within an art context is summarized in Table 4.

Table 4: Elicitation of speech acts for BISAP (after Lucas 1980).

REQUEST FOR OBJECT - Investigator asks subject to do a drawing; provides no materials for doing so; intimates to subject that mother has materials; does not tell subject to ask.
REQUEST FOR ACTION - Investigator suggests that subject should get mother to draw a picture; mother appears preoccupied; investigator does not tell subject which speech act to perform.
ASSERTION - Investigator asks subject to describe his/her drawing: "tell me about your picture".
DENIAL - Investigator asks subject to draw an obscure item: "draw a stegosaurus".
STATEMENT OF INFORMATION - Investigator asks subject to relate events: "what did you do when you first came into this room?"
REQUEST FOR INFORMATION - Investigator asks subject to reproduce complex picture: "make a picture exactly like this one"; no glitter, glue, tracing paper, provided.
CALLING - Mother leaves room; after a while investigator suggests child should summons mother; desired speech act not specified: "fetch mom".
RULE ORDER - Investigator suggests to subject that he/she should inform mother what investigator had said: "tell mom to come back".

For a detailed description of this procedure, the reader is referred to Lucas (1980, pp.239-240) and Lucas Arwood (1984, pp.80-81). From Table 4 it may be seen that structured elicitation for the BISAP provided the opportunity for the following speech acts to occur; request for object, action and information, assertion, denial, statement of information, calling and rule order. The speech acts focussed on in the format for the BISAP, are described by Lucas Arwood (1984) as some of the most important uses of language and were selected by her from the language acquisition literature and from clinical observations on the language disordered population (Lucas, 1980).

As can be seen in Table 4, it was never specified which speech act the subject was to perform, although cues and elaborations were permissible. Furthermore, in the event that the subject did not respond, allowance was made for rewording the stimulus three times. A one minute time limit was imposed for a response following the last stimulus for each speech act. Throughout the procedure the investigator attempted to counteract potential feelings of anxiety or failure on the part of the child by maintaining a relaxed friendly environment and making comments such as "that's ok" or "that was a funny thing to ask, wasn't it?". The investigator thereby assumed responsibility for any difficulties

encountered. Mothers were reassured by means of information regarding the nature of the procedure (refer to Appendix B).

It is possible that subjects did experience some apprehension in a structured situation involving an unfamiliar interlocutor and unfamiliar tasks. The interest in this study is, however, precisely in this type of information. In other words, it is of interest to ascertain how a child shortly about to enter formal schooling could cope in this type of situation (which may approximate the school type situation) by means of his/her use of communicative abilities. The speech acts focussed on in the BISAP provided some of the basic requisites for addressing communicative competence for this study. As suggested in Chapter 3 however, in investigating communicative competence, these categories are not exhaustive and there were thus indications for investigating additional parameters. Therefore in addition to eliciting speech acts that focus on the speaker in his/her role as speaker which Lucas' procedure does, other parameters that were investigated, were those that provide an indication of the child's functioning in the role of hearer and how he/she manages communicative breakdown. These will be described in the following section.

4.4.3 STRUCTURED ELICITATION OF ADDITIONAL PRAGMATIC BEHAVIOURS

Nature of interaction and description of context

The participants and type of elicitative procedure remained the same as in the previous context, that is, Lucas' format was adopted. Change occurred in the stimuli, whereby the art context was changed to an eating activity. This structured activity was devised to elicit additional parameters encompassing the following pragmatic behaviours: response to clarification request, request for clarification, turntaking, response contingency, topic initiation and topic maintenance. The strategy for eliciting these additional parameters is summarized in Table 5 and elaborated on in Appendix C.

From the strategy depicted in Table 5, it may be seen that attempts were again made to counteract potential feelings of failure on the part of the child. Thus, for example, after the investigator's third clarification request, the investigator alluded to herself not having listened adequately. Generally however, the second elicitative procedure appeared more naturalistic than the former.

Table 5: Summary of strategy for eliciting additional pragmatic behaviours.

RESPONSE TO CLARIFICATION REQUEST - While participants eat a snack, investigator comments that biscuits are her favourite food; investigator then inquires after the subjects favourite food; regardless of the subject's response, investigator feigns not having heard via stacked clarification requests: "pardon?", "what did you say?", "your favourite food is what?"
REQUEST FOR CLARIFICATION - In a barely audible voice investigator states that she enjoys eating "skrits" and asks subject to draw this nonsense word: "draw some skrits".
TURNTAKING - Investigator initiates dialogue around the topic of food, using both questions and statements.
RESPONSE CONTINGENCY - Investigator continues dialogue around a number of topics.
TOPIC INITIATION - Investigator places some novel toys on the table and some visible but out the child's reach, remains silent and maintains friendly eye contact, while at times doing another activity.
TOPIC MAINTENANCE - Investigator communicates with child, but does not initiate any new topics.

4.4.4 RECORDING

An audiorecording was made of each mother/child interaction by means of a Sony TCM-2 cassette-corder, which was placed on a table in view of each subject. Furthermore, videorecordings were made of these interactions through the use of a National WV-361 black-and-white videocamera, attached to a National NV8200 video cassette recorder, Dolby system, via a one way mirror.

The structured elicitation procedures was also simultaneously audio and videorecorded for each subject by means of the described equipment. Recording the

pragmatic behaviours of calling and rule order necessitated the use of additional audio and videorecording from a different adjoining room. Additional recording equipment comprised a Sony TCD5 Pro Capstan Servo Control Stereo Cassette Corder, Ferrite and Ferrite Head Dolby System tape recorder, a AKGD 125 MIC microphone and a Eumig Videokamera 553. The Sony TCD5 tape recorder was placed in a room, two rooms away and across the passage from the sampling room. The microphone placed on a table in this adjoining room, transmitted sound via a lead running across the passage to the room containing the videorecorder. The visual picture from the adjoining room was obtained via the Eumig Videokamera which was mounted on a raised surface, so as not to be visible to the subject, and strategically placed so as to face a mirror, which in turn provided a reflection of the subject when he/she entered the room to summons the mother. For the most part however, the structured elicitation condition was recorded by means of the Sony TCM-2 tape recorder, the National WV-361 video camera and the National NV8200 video cassette recorder.

Dolloghan and Miller (1986, pp.111-112) suggest that "...in studying complex communicative phenomena, ... events must be preserved on videotape or audiotape for subsequent coding and analysis". For the purposes of the present study, audiorecording provided clarity for

transcription for the spontaneous language sample and served as a back-up for on-line and video recording for the structured elicitation procedure. Videorecording, in providing a permanent picture of contextual features, aided the transcription process, particularly in the case of unintelligible utterances. Videorecording yielded a number of advantages for recording pragmatic behaviours in the structured elicitation procedure. Raters were able to refer back to the interaction after on-line recording when uncertainty was encountered in the rating of particular subcomponents of parameters. Features such as body orientation and eye contact, which were transient during on-line recording, were more reliably evaluated via the permanent picture of context allowed by the videorecording medium.

4.4.5 RATING OF PRAGMATIC BEHAVIOURS

Raters

Each subject's performance on the structured elicitation procedures was rated on-line and via videotapes by two independent raters. The raters were qualified speech-language pathologists who were both staff members in the Speech Pathology Department, University of the Witwatersrand. Both raters had worked extensively in the area of child language pathology and

were sophisticated as regards the pragmatics domain, in that discussions with them revealed that they were aware of theoretical constructs in this field and adopted a pragmatic perspective to their clinical work.

Training procedure

A two hour period was spent training raters regarding the criteria for recognizing behaviours related to parameters and subcomponents of interest. Raters were also familiarized with the rating form for the rating procedure. Training was done by providing explanations and presenting examples together with a videotape. Raters were then provided with written material containing definitions and descriptions of the phenomena in order that their understanding of the rating procedure could be consolidated before rating commenced. Instructions for rating are provided in Appendix D. In addition, both raters met with the investigator a second time so as to clarify potential areas of confusion and to seek agreement on interpretation issues. Furthermore, this meeting provided the opportunity for raters to advise the investigator of any modifications that they might have envisaged being necessary to facilitate the rating procedure. Raters reported that the procedure provided clarity in terms of operationalism and conveyed strategy.

Rating procedure

Rating was carried out in an adjoining room to the one in which the structured elicitation procedure was conducted and in the same room that videorecording was occurring. In this way raters were afforded the facility of observing via a one-way mirror. Also, access to additional visual and auditory input was provided by transmission of the structured interaction on a television monitor simultaneously with the data being videorecorded. Raters were seated at separate tables equidistant from the one-way mirror in order that on-line rating could be done independently. Observation was initiated immediately the structured elicitation procedure began. Behaviours were rated following the presentation of each stimulus for the elicitation of each particular pragmatic behaviour. Following on-line rating, raters viewed the videotape of the structured interaction in order to confirm and finalize their ratings.

Raters were required to identify the presence or absence of a number of prespecified phenomena which collectively comprised each particular pragmatic behaviour of interest. The same rating procedure format was used for both the BISAP and the Addendum to the BISAP. An extract from the rating procedure is

presented in Table 6. A score sheet for the BISAP is provided in Lucas (1980, p.237) and Lucas Arwood (1984, p.77). An example of the rating scale for the BISAP Addendum is provided in Appendix E

Table 6: Extract from rating form for BISAP (adapted from Lucas, 1980).

Request for Object	Yes(1)	No(0)	Other
a. Subjects body orientation is towards hearer (H) in order to ready H for the utterance			
b. Eye contact or name is used to signal H			
c. Appropriate linguistic markers indicating either an interrogative or an imperative form			
d. An utterance which specifies what H is to do			
e. Appropriate loudness for H to respond			

From Table 6, it is evident that behaviours that were to be rated using this format were clearly specified. Furthermore, it can be seen that the rating format affords a focus on discrete components of specific pragmatic behaviours.

4.4.6 TRANSCRIPTION

Audiotapes of the mother/child free-speech interactions were orthographically transcribed within three days of recording. Tapes were transcribed according to the

procedure suggested by Crystal et al. (Crystal, Fletcher and Garman, 1976; Crystal, 1979; Crystal, 1981). In instances of uncertainty regarding inflections and potentially unintelligible utterances, videorecordings were referred to, so as to obtain cues from context. In order to ascertain intraobserver reliability for transcription, an audiotape was listened to a second time a month later, retranscribed and compared to the first transcription. No variation was evidenced in the transcriptions. In addition a taped segment was given to an independent speech-language pathologist for transcription. When this transcription was compared to the present investigator's transcription, there was complete concurrence. Structured interactions were transcribed from audio and videorecordings following the rating procedure in order to facilitate data analysis.

4.4.7 SOCIAL SKILLS RATING

Subjects' respective preschool classroom teachers were requested to complete The Devereux Elementary School Behaviour Rating Scale (DESB) (Spivack and Swift, 1967) for each child. Subjects were rated by their teachers in terms of observed classroom behaviors in order that a profile of behaviours could emerge for each child. The DESB and other measures used in this study will be discussed in the following section.

4.4.8 SUMMARY AND DISCUSSION OF MEASUREMENT BATTERY

In the preceding section four contexts were described from which data was collected, that is: (1) an unstructured mother/child interaction which yielded a spontaneous language sample; (2) a structured 'art' context during which an unfamiliar interlocutor attempted to elicit speech acts on the part of the child; (3) a structured 'eating' context in which there was an attempt to elicit additional pragmatic behaviours and (4) a behavioural inventory whereby each subject's classroom behaviour was rated by their respective preschool teachers.

Data were collected in this manner in accordance with procedures for the following measures: (1) The Language Assessment Remediation and Screening Procedure (LARSP), developed by Crystal, Fletcher and Garman (1976); (2) The Behavioural Inventory of Speech Act Performances (BISAP), developed by Lucas Arwood (1980); (3) The Addendum to the BISAP (a measure which I devised based on the format of the BISAP); and (4) The Devereux Elementary School Behaviour Rating Scale (DESB) developed by Spivack and Swift (1967). A brief discussion and evaluation of each of these measures follows.

The LARSP

LARSP provides a systematic, comprehensive means to analyse language quantitatively and qualitatively. While the procedure focusses essentially on a structural analysis of syntactic aspects of language, it also permits interactional aspects of dyadic situations such as stimulus types and reactions of the interlocutor to be coded. According to the LARSP procedure, analyzable utterances gleaned from the language sample are coded as either major or minor initiations or responses and as question, command or statement sentence types. Analyses of utterances are performed at the clause, phrase and word levels. Stages and corresponding ages at which grammatical structures are proposed to be acquired are provided so that a profile of syntactic strengths and weaknesses relative to a developmental perspective may be obtained.

The BISAP

This measure was briefly described in Chapter 3 in discussing Lucas Arwood's methodology. The BISAP allows for a quantitative and qualitative description of seven speech acts and their subcomponents. Presence or absence of subcomponents of elicited speech acts are coded and assigned scores. In this way it is possible to access which requisite behaviours are within a

subject's repertoire. It is also possible to ascertain whether or not certain behaviours are consistently absent on subparameters across speech acts.

The Addendum to the BISAP

As indicated in Chapter 3, this scale was devised because of the need to investigate additional discourse parameters along the same lines that speech acts were examined according to the BISAP. The framework for the BISAP was adopted to incorporate subcomponents proposed for additional discourse features chosen. Other than it's use in a pilot study, this addendum has not been standardized on any population and can therefore only be viewed in terms of being at a formulation phase.

The DESB

This rating scale addresses a number of behaviours that are purported to interfere with academic performance and has been used with kindergarteners (Goodwin and Driscoll, 1980; Spivack and Swift, 1967). Behaviours measured are categorized into areas including the following: Classroom disturbance, impatience, disrespect-defiance, external blame, achievement anxiety, external reliance, inattentive-withdrawn and irrelevant-responsiveness. These factors are described in Chapter 5 in presenting individual profiles.

4.5 DATA ANALYSIS

In accordance with the LARSP procedure, all transcribed utterances were analysed in terms of all subsections of the LARSP profile. A syntactic profile was thus obtained for each subject as well as information pertaining to interactional modes of communication. Frequency counts for elements occurring at each level of analysis, for example at clause, phrase and word levels were qualitatively interpreted and in certain instances converted to percentages for quantitative analysis. Calculations were performed for each profile in order to obtain total number of sentences, mean sentence length and mean number of sentences per turn. Data from the B and C sections which include aspects such as elliptical utterances and data from the summarizing section of the chart such a total number of sentences were extracted for statistical analysis on a group level. Data from stage acquisition sections were treated descriptively.

The mode of data analysis for the BISAP and the Addendum to the BISAP involved assigning scores of one or zero for behaviours coded as present or absent respectively on subcomponent parameters of each speech act and discourse feature elicited. In this way, profiles of pragmatic behaviours were obtained for each subject, which were qualitatively described. For each

subject, scores on subcomponent behaviours were summed in order to obtain a total score for each speech act elicited. Individual scores for subjects within each group were then totalled so as to obtain an average score on each speech act for the RLI group and for the NL group. Statistical comparisons were then performed between the RLI and the NL group for each speech act.

With regard to the DESB, scores on related items for each DESB factor were summed to obtain a total raw score on each factor for individual subjects. A profile of each subject's classroom behaviour was thus obtained. Scores were interpreted in relation to average scores for the relevant age group provided in the DESB manual (Spivack and Swift, 1967, p.7). Scores for individual subjects within groups were combined in order to calculate an average score for each factor for both the RLI and NL groups. Statistical comparisons between groups were performed for each DESB factor.

Beside statistical comparisons between groups of scores on parameters on all measures, correlations were also investigated among parameters.

Rating reliability

LARSP analyses were confirmed by a second analysis and by a second person who independently analysed portions of a number of samples. With respect to the BISAP, interrater reliability was calculated according to the proportion of concurrent responses by the two raters. The interrater reliability was high in that the number of agreements for 40 items on the BISAP was 39, while there was total agreement for all items on the Addendum to the BISAP. As regards the DESB, the teacher who had the majority of subjects in her preschool class rated all children in her class on this measure and performed a repeated rating on subjects in the present study; she reported concurrence in her ratings on both occasions. In addition, it is likely that factors rated on the DESB were reliable in that each factor is measured according to four related items.

CHAPTER 5

RESULTS AND DISCUSSION

A general aim of the present study was to determine whether differences exist between a group of language-impaired subjects who had been declared 'remediated' (RLI), and a group of 'linguistically normal' (NL) subjects on linguistic, pragmatic and social skill dimensions. To this end, the Mann-Whitney U test was applied to scores obtained by each group on selected aspects of the LARSP, the BISAP, the BISAP ADDENDUM, and the DESB. The test statistics and significance levels are presented in Tables 7, 8, and 9 which demonstrate that there were no signifcant differences between a group of RLI (n=5) and a group of NL (n=5) subjects on selected syntactic, pragmatic and social skill dimensions at the 0.05 level.

Table 7 : Comparison between NL and RLI Groups on LARSP

Parameter	Test Statistic	Significance	Decision
Total No. of Sentences	16.00	0.44	Not Significant at p>0.05
Mean No. Sentences/Turn	11.00	0.47	
% Spontaneity	6.00	0.39	
% Elliptic Responses	11.00	0.47	
% Major Responses	4.00	0.36	
% '0' Responses	12.00	0.49	
% Structural Abnormality	10.00	0.46	

LARSP Normals versus Rehabilitated Mann-Whitney U test n1=n2=n5

Table 8 : Comparison between NL and RLI Groups on BISAP/BISAP Addendum

Parameter	Test Statistic	Significance	Decision
Request for Object	11.00	0.47	Not Significant at p>0.05
Request for Action	7.50	0.41	
Assertion	12.50	0.50	
Denial	10.00	0.46	
Statement of Information	12.50	0.50	
Request for Information	7.50	0.41	
Calling/Summons	10.00	0.45	
Rule Order	10.00	0.46	
Response to Clarif. Request	10.00	0.43	
Request for Clarification	5.00	0.37	
Ability to Turn Take	12.50	0.50	
Response Contingency	7.50	0.41	
Topic Maintenance	15.00	0.45	
Total Score BISAP (40)	5.00	0.36	
Total Score (Addendum)	8.50	0.40	
Overall Total	8.00	0.42	

BISAP Normals versus Rehabilitated Mann-Whitney U test n1=n2=n5

Table 9 : Comparison between NL and RLI Groups on DESB

Factor	Test Statistic	Significance	Decision
Class Disturbance	10.00	0.46	Not Significant at p>0.05
Impatience	18.00	0.41	
Disrespect/Defiance	13.00	0.49	
External Blame	15.00	0.46	
Achievement Anxiety - Kinder	14.00	0.46	
Achievement Anxiety - Total	15.00	0.46	
External Reliance	8.50	0.43	
Comprehension	9.00	0.44	
Inattentive/Withdrawn	13.50	0.48	
Irrelevant Responsiveness	16.50	0.43	
Creative Initiative	18.50	0.40	
Need Closeness	14.50	0.46	
Unable to Change	19.50	0.32	
Quits	12.50	0.50	
Slow Work	19.50	0.37	

DESB Normals versus Rehabilitated Mann-Whitney U test n1=n2=n5

Findings pertaining to no significant differences between a RLI and NL group on certain pragmatic behaviours are similar to those of Meline (1986) who found no differences in communicative effectiveness between linguistically-normal and language-impaired children. Similarly, findings from the present study would seem to be in agreement with those of Cromwell, Prather and Kenney (1985) who found no differences between five year old groups of linguistically-normal and language-impaired children in terms of type of repair strategies used in response to clarification requests.

However, lack of significant between-group differences in the present study could in part be attributable to the small sample size (comparisons between groups comprising small sample sizes require large differences in order for them to be significantly different statistically). In addition it is possible that each group was very different within itself. Kent (1985) refers to the possibility of large individual differences among the members of a disordered group, while McReynolds and Thompson (1986, p.196) suggest that variability in a disordered group may exist with regard to responsiveness to a particular treatment variable. Within-group differences will be explored and presented descriptively following further investigation of between group differences.

Although there were no significant between-group differences in scores on selected aspects of the LARSP, the BISAP, the BISAP ADDENDUM and the DESB, it was of interest to focus on the directions of the means in order to attempt to extract trends regarding the manner in which one group performed in contrast to the other on the various measures. Tables 10, 11, 12, 13, 14 and 15 present statistical properties for each group on all the measures.

The direction of the means for each parameter on the LARSP will be described first. While the direction of means are of interest, no statistical differences were apparent between the RLI and the NL group on any of the selected LARSP parameters. From Tables 10 and 11, it may be seen that the mean on 'total number of sentences' and 'percentage structural abnormality' was higher in the RLI group than in the NL group. Conversely the RLI group obtained a lower mean than the NL group on each of the following categories: 'mean number of sentences per turn', percentages in 'spontaneity', 'elliptic responses', 'major responses' and 'zero responses'.

Table 10 : Statistical Properties for NL Group (n=5) on LARSP

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Total No. of Sentences	123.00	174.00	139.00	144.80	20.95
Mean No. Sentences/Turn	1.10	2.80	2.20	1.96	0.70
% Spontaneity	31.60	74.10	65.40	56.26	17.53
% Elliptic Responses	25.00	44.40	37.00	34.62	9.17
% Major Responses	48.30	82.40	63.90	62.54	13.05
% '0' Responses	5.00	22.20	11.70	14.26	7.67
% Structural Abnormality	0.00	13.00	10.00	8.48	5.03

Table 11 : Statistical Properties for RLI Group (n=5) on LARSP

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Total No. of Sentences	121.00	226.00	159.00	167.00	42.39
Mean No. Sentences/Turn	1.20	2.70	1.40	1.76	0.68
% Spontaneity	29.00	65.00	38.00	45.24	16.25
% Elliptic Responses	24.80	46.20	31.30	32.40	8.64
% Major Responses	41.70	58.80	50.50	49.24	7.31
% '0' Responses	5.00	29.00	11.70	13.62	9.07
% Structural Abnormality	7.80	18.80	10.08	11.55	4.45

Crystal (1979, p.104) states that a thirty-minute sample may yield 100 to 200 sentences in NL children. In the present study which involved a fifteen minute sample, it would thus be reasonable to expect that subjects would produce fifty to a hundred sentences. The number of sentences produced by both groups were in the region of 150; with RLI subjects producing seventeen more and NL subjects producing six less than 150. Crystal suggests that numbers in excess of the expected figure may be indicative of linguistic hyperactivity. Whereas both groups evidenced a small percentage of structurally abnormal responses (Crystal interprets these as possibly indicating difficulties in comprehension or expressive difficulties (p.44)), the RLI group obtained a higher percentage. RLI subjects used fewer elliptic utterances (described by Crystal, 1982, p.44, as being an important feature for conversational style) than normal subjects.

While Crystal (1982) suggests that the average mean number of sentences per turn is 3.7, Fletcher and Garman (1988) caution against misinterpretation in profiles have not been derived in exactly the same manner. Both groups of children demonstrated a lower figure on this parameter, with the RLI group showing a slightly lower number. The direction for means on spontaneity showed less spontaneity for the RLI group and fewer major responses.

Despite interesting observations regarding the direction of the means on the BISAP and BISAP ADDENDUM, no statistical between group differences occurred on any parameters of these measures. In viewing the direction of the means on means obtained by the NL and the RLI groups on parameters of the BISAP and BISAP ADDENDUM in Table 12 and 13, it is apparent that the RLI group obtained a lower mean than the NL group on the following parameters;- requests for action, information, and clarification, denial and response contingency. In addition, the RLI group obtained a lower total score than the NL group on the BISAP and BISAP ADDENDUM. On all other parameters the means were the same or practically the same with the exception of topic maintenance, where the RLI group obtained a slightly higher mean than the NL group. Generally a higher mean on a particular BISAP parameter is viewed positively in that it indicates that it is close to the maximum score expected for elicited parameters. The observation regarding topic maintenance is interesting and will be further explored when presenting within-group differences.

Table 12 : Statistical Properties for NL Group (n=5) on BISAP/BISAP Addendum.

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Request for Object	3.00	5.00	5.00	4.40	0.89
Request for Action	5.00	5.00	5.00	5.00	0.00
Assertion	4.00	8.00	5.00	4.80	0.45
Denial	5.00	5.00	5.00	5.00	0.00
Statement of Information	4.00	5.00	5.00	4.80	0.45
Request for Information	5.00	5.00	5.00	5.00	0.00
Calling/Summons	4.00	5.00	5.00	4.80	0.45
Rule Order	5.00	5.00	5.00	5.00	0.00
Response to Clarif. Request	4.00	4.00	4.00	4.00	0.00
Request for Clarification	3.00	4.00	4.00	3.80	0.45
Ability to Turn Take	4.00	4.00	4.00	4.00	0.00
Response Contingency	5.00	5.00	5.00	5.00	0.00
Topic Maintenance	0.00	5.00	5.00	3.00	2.74
Total Score BISAP (40)	37.00	40.00	39.00	38.80	1.30
Total Score (Addendum)	17.00	23.00	22.00	20.60	2.88
Overall Total	55.00	63.00	61.00	59.40	3.65

Table 13 : Statistical Properties for RLI Group (n=5) on BISAP/BISAP Addendum.

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Request for Object	2.00	5.00	5.00	4,00	1.41
Request for Action	2.00	5.00	5.00	3,80	1.64
Assertion	4.00	5.00	5.00	4,80	0.45
Denial	3.00	5.00	5.00	4,60	0.89
Statement of Information	4.00	5.00	5.00	4,80	0.45
Request for Information	2.00	5.00	5.00	3,80	1.64
Calling/Summons	4.00	5.00	5.00	4,60	0.55
Rule Order	4.00	5.00	5.00	4,80	0.45
Response to Clarif. Request	4.00	4.00	4.00	4,00	0.00
Request for Clarification	1.00	4.00	3.00	2,80	1.30
Ability to Turn Take	4.00	4.00	4.00	4,00	0.00
Response Contingency	4.00	5.00	5.00	4,60	0.55
Topic Maintenance	0.00	5.00	5.00	3,80	2.17
Total Score BISAP (40)	28.00	40.00	37.00	35,20	4.55
Total Score (Addendum)	14.00	22.00	21.00	19.80	3.27
Overall Total	42.00	61.00	58.00	55.00	7,48

Turning to investigating the direction of the means on DESB factors, it is apparent from Tables 14 and 15 that on a large number of the fourteen factors the RLI group revealed higher means than the NL group. Thus on factors of impatience, disrespect-defiance, external blame, inattentive-withdrawn, irrelevant-responsiveness, unable to change, quits and slow work, RLI subjects showed higher means than NL subjects. These factors are negative aspects and in this instance a lower mean is desirable. On positive factors on the DESB such as comprehension the RLI group demonstrated a lower mean than the NL group, although RLI subjects showed a higher mean than NL subjects on the positive creative-initiative factor.

By looking at the minimum and maximum scores obtained for the various parameters (refer to tables 10, 11, 12, 13, 14 and 15 presenting statistical properties for each group individually), it is apparent that both groups show within-group variability. Thus, for example, it may be seen that the minimum score obtained for the factor "classroom disturbance" is 4 while the maximum score is 21 in the RLI group. Within-group variability for the various parameters will be elaborated on in the following section. Statistical properties for combined groups on the various measures are presented in Appendix H.

Table 14 : Statistical Properties for NL Group (n=5) on DESB

Factor	Minimum	Maximum	Median	Mean	Standard Deviation
Class Disturbance	5.00	16.00	11.00	11.60	4.34
Impatience	5.00	13.00	8.00	8.40	3.21
Disrespect/Deflance	4.00	10.00	8.00	7.40	2.41
External Blame	4.00	12.00	6.00	7.00	3.16
Achievement Anxiety - Kinder	4.00	7.00	4.00	5.00	1.41
Achievement Anxiety - Total	6.00	12.00	8.00	8.40	2.30
External Reliance	11.00	17.00	14.00	14.00	2.55
Comprehension	10.00	14.00	11.00	11.80	1.64
Inattentive/Withdrawn	4.00	10.00	8.00	7.20	2.28
Irrelevant Responsiveness	4.00	10.00	7.00	7.00	2.55
Creative Initiative	7.00	13.00	9.00	9.80	2.59
Need Closeness	10.00	16.00	14.00	13.40	2.41
Unable to Change	1.00	3.00	2.00	2.00	0.71
Quits	1.00	5.00	2.00	2.60	1.52
Slow Work	1.00	2.00	2.00	1.60	0.55

Table 15 : Statistical Properties for RLI Group (n=5) on DESB

Factor	Minimum	Maximum	Median	Mean	Standard Deviation
Class Disturbance	4.00	21.00	11.00	11.00	6.96
Impatience	6.00	17.00	12.00	11.80	4.82
Disrespect/Defiance	4.00	18.00	7.00	9.60	6.50
External Blame	4.00	20.00	7.00	10.20	6.98
Achievement Anxiety - Kinder	2.00	7.00	5.00	5.00	1.87
Achievement Anxiety - Total	6.00	13.00	10.00	9.40	2.88
External Reliance	6.00	21.00	11.00	12.40	5.81
Comprehension	8.00	13.00	11.00	10.80	2.28
Inattentive/Withdrawn	4.00	15.00	7.00	8.40	4.10
Irrelevant Responsiveness	4.00	17.00	9.00	10.60	5.68
Creative Initiative	6.00	18.00	14.00	13.00	4.47
Need Closeness	11.00	19.00	13.00	14.40	3.13
Unable to Change	2.00	5.00	3.00	3.40	1.52
Quits	1.00	7.00	2.00	3.20	2.68
Slow Work	1.00	7.00	5.00	4.20	2.59

Figures presented in the following section depict the scores obtained by each subject on the various parameters. Note that subjects in the RLI group are referred to as S1, S2 and so forth throughout, whereas subjects in the NL group are referred to as N1, N2 and so on.

5.1 WITHIN-GROUP COMPARISONS

WITHIN-GROUP VARIABILITY ON THE LARSP

Figure 1 presents the 'total number of sentences' used by each subject on the LARSP. It is interesting to note that both the highest 'total number of sentences' (S3) and the 'lowest total number of sentences' (S2) occurred in the RLI group. A 'total number of sentences' in excess of 200 was obtained by one subject (S3) in the RLI group, which may be indicative of 'linguistic hyperactivity' (Crystal, 1979).

In terms of 'mean number of sentences per turn', more subjects in the NL group obtained a 'mean number of sentences per turn' in excess of 2 than did subjects in the RLI group and both the highest (N5) and lowest (N4) figure on this parameter occurred in the NL group (see Figure 2). It is postulated that 'mean number of sentences per turn' may have been influenced by the situational context and by the nature of interlocutor input.

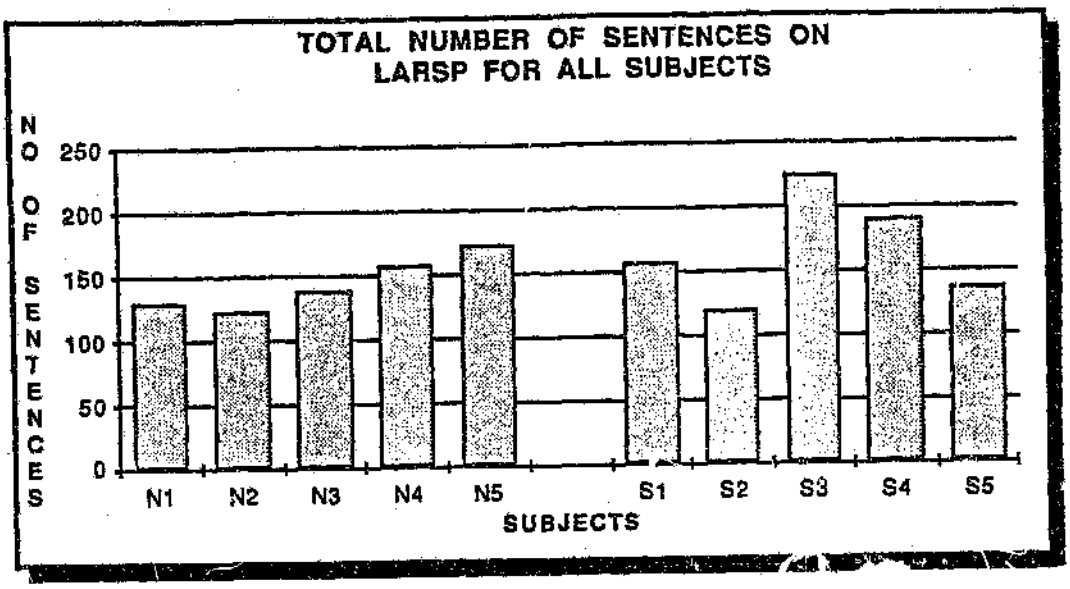

Figure 1: Total number of sentences on LARSP for all subjects.

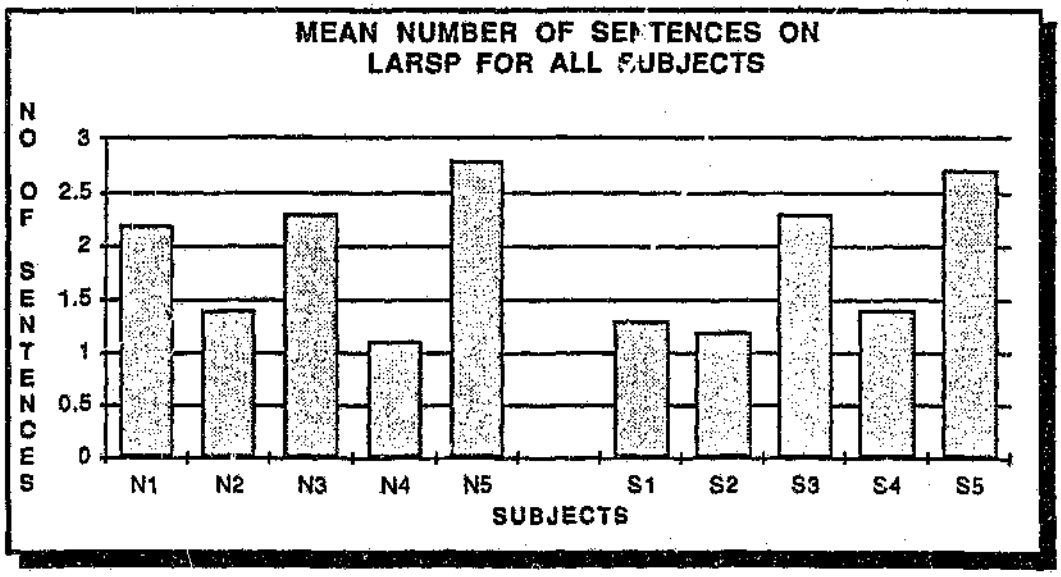

Figure 2: Mean number of sentences on LARSP for all subjects.

Thus, for example, an investigation of transcripts from language samples suggests that N4's 'mean number of sentences per turn' may be low in that she could have been negatively influenced by the context, as evidenced by her reluctance to talk to her mother (despite her being a familiar interlocutor). N4's communicative behavioural pattern in turn seemed to affect the nature of the mother's stimuli, that is the mother asked more questions and filled many conversational turns in an attempt to elicit communication from N4, as is evident from the following extract:

M: "Do you think that's a mommy? It looks like a child. She's a mommy. Ok what are they gonna tell the mommy when they go?"
G: "Bye bye."
M: "And what do you tell mom when you go to school in the morning?"
G: "Goodbye."
M: "And what else did you do this morning?"
G: "Voom, vm."
M: "G., can you talk to me! What did you do this morning?"

From this particular transcript it also appears likely that the mother's mode of interaction in itself, may have been influenced by her own expectations of the situation, despite the nature of instructions provided.

A large range of 'percentage zero responses' is evidenced in both groups as can be seen in Figure 3. The highest 'percentage zero responses' occurred for S5 in the RLI group, whereas there was one occurrence of a low 'percentage zero responses' in each of the groups.

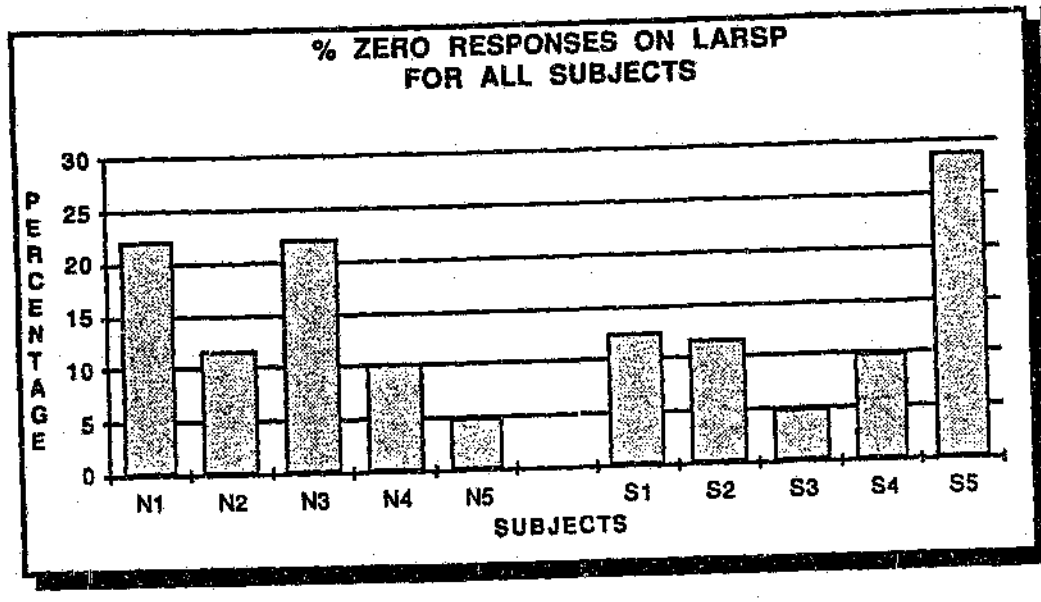

Figure 3: Percentage zero responses on LARSP for all subjects.

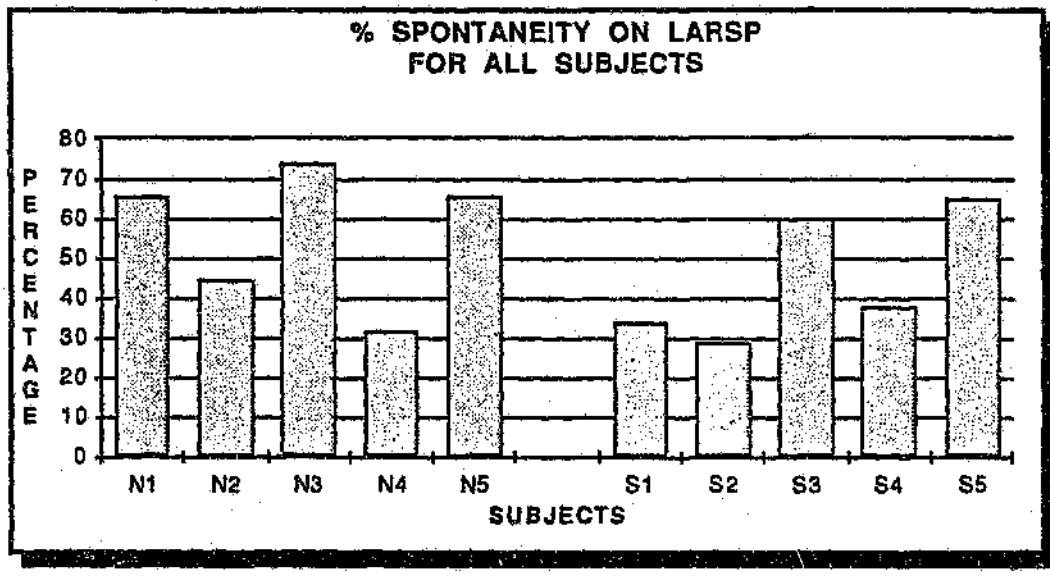

Figure 4: Percentage spontaneity on LARSP for all subjects.

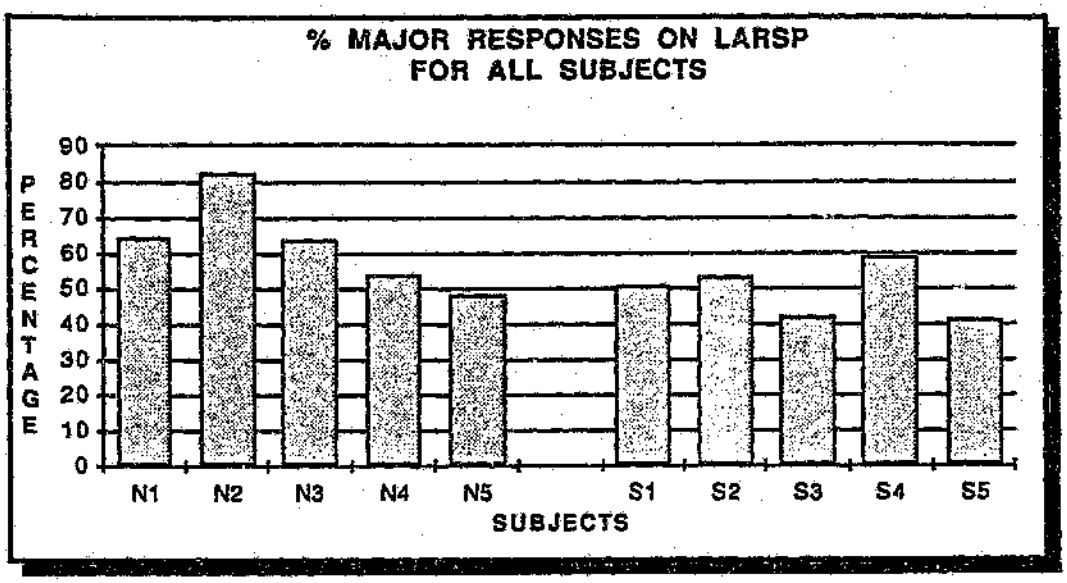

Figure 5: Percentage major responses on LARSP for all subjects.

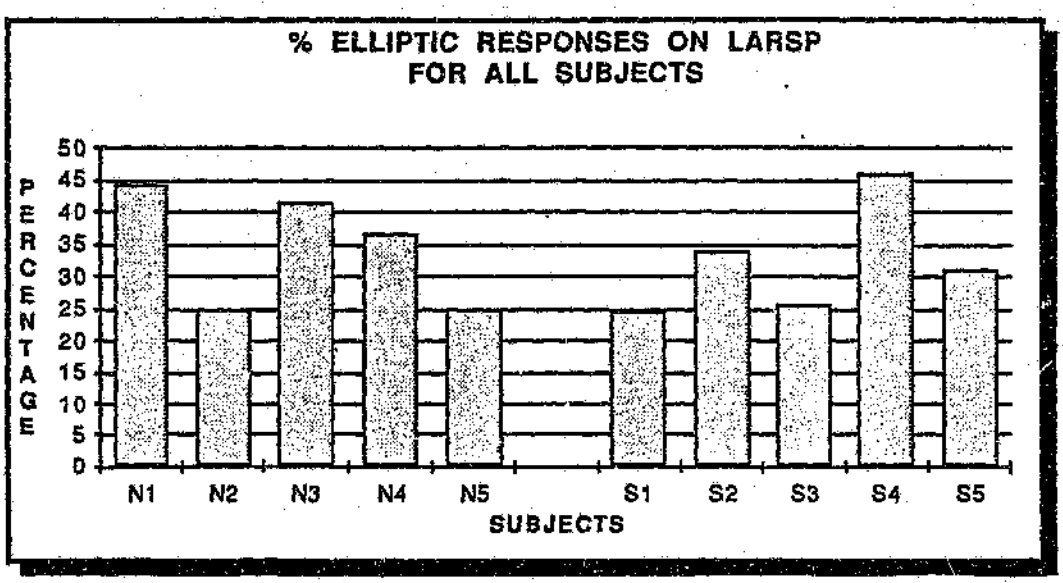

Figure 6: Percentage elliptic responses on LARSP for all subjects.

Within-group variability is also demonstrated for 'percentage spontaneity' as may be seen in Figure 4. The highest 'percentage spontaneity' occurred for a subject in the NL group N3, who obtained 73%. Within the RLI group, 'percentage spontaneity' obtained, ranged from 29% for S2 to 65% for S5. There appears to be a contradiction in the observation of a high number of 'zero responses' yet a high 'percentage spontaneity' for S5. A possible interpretation could be that this particular subject may have been less responsive as a respondent than as an initiator in an unstructured situation with a familiar interlocutor. Figures 5 and 6 present findings with regard to percentage 'major responses' and percentage 'elliptic responses' for individual subjects within both groups.

WITHIN-GROUP VARIABILITY ON THE BISAP

In order to gain an indication of within-group variability on the BISAP the reader is referred to Table 16, which presents a profile of scores on the BISAP for all subjects. While actual scores are not specified in this table, it should be noted that a blank block refers to the subparameter being present with a corresponding score of 1, whereas a block marked with an X indicates that the particular parameter that should have been present, was in fact absent, which resulted in a zero score for those particular parameters.

Table 16 : Profile of Scores on BISAP for all Subjects

BISAP Parameters		Normal Language Group					Rehabilitated Language Impaired Group				
		N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
Request For Object	Body Orientation										
	Eye Contact										
	Linguistic Marker					X		X			X
	Specification	X				X		X			X
	Loudness										X
Request For Action	Body Orientation										
	Eye Contact										
	Linguistic Marker							X			X
	Specification							X			X
	Loudness							X			X
Assertion	Falling Contour Declarative										
	Form of - is x - not imitation										
	Loudness										
	Eye Contact				X					X	
	Body Orientation										
Denial	Implication Previous Action										
	Loudness or Emphatic Stress										X
	Utterance Negatively Marked										X
	Eye Contact										
	Body Orientation										
Statement of Information	Falling Contour Declarative										
	Loudness										
	Content Factual							X			
	Eye Contact				X						
	Body Orientation										
Request For Information	Rising Contour								X		X
	Specific Lexical Item								X		X
	Loudness								X		X
	Eye Contact										
	Body Orientation										
Calling/Summons	Specified or Signalled					X					X
	Body Orientation										
	Eye Contact									X	
	Specification										
	Loudness										
Rule Order	Falling Contour Imperative										
	Loudness										
	Body Orientation										
	Eye Contact									X	
	Specification										

X : Absent or Inappropriate

Thus it may be seen that within the NL group two subjects, N2 and N3 used all the behaviours necessary on the various BISAP parameters. One subject N1 did not specify when requesting an object, while another subject N4 failed to use eye contact for the parameters 'assertion' and 'statement of information'. Furthermore, one subject in the NL group N5 revealed three absent subparameters, that is, a linguistic marker and specification on 'request for object' and specification on 'calling'. In the RLI group it is evident from Table 16 that more requisite behaviours on subparameters were absent than in the NL group. For instance, four out of the five subjects showed evidence of some absent behaviours on a number of parameters. S4 did not use eye contact on three occasions, that is for 'assertion', 'calling' and 'rule order'. S3 on the other hand did not use a specific lexical item, rising contour, or appropriate loudness in 'requesting information'. S2 showed five absent behaviours, that is lack of linguistic marker and specification in 'requesting object' and lack of linguistic marker, specification and loudness in 'request for action'. S5 evidenced the largest number of absent behaviours. On both 'request for object' and 'request for action', she used neither linguistic markers, specification nor loudness. On 'denial', she failed to use a negatively marked utterance and failed to use appropriate loudness. On 'request for information', she did not use

a specific lexical item, rising contour, or sufficient loudness. In addition she used no specification in 'calling'.

Moving now to within-group variability on the Addendum to the BISAP, the following becomes evident from Table 17. It is apparent that whereas subject N1 had only failed on one subparameter on the BISAP (that is on specification in requesting an object), on the BISAP ADDENDUM he failed to use six subparameters, that is revision of linguistic form in 'response to clarification request' as well as all subparameters of 'topic maintenance'. One other subject N5 also failed to use all subcomponents on 'topic maintenance'. For subject N2, while all requisite behaviours were present on the BISAP, there was a failure to use revision of linguistic form in 'response to clarification request'. N3 failed to use a directive or interrogative in 'request for clarification'. Further it may be seen that whereas N4 failed to use eye contact on two occasions on BISAP parameters, she used all required behaviour on the BISAP ADDENDUM. In the RLI group all five subjects showed some absent behaviours on the Addendum to the BISAP. For instance S1, despite using all behaviours on the BISAP, evidenced a failure to use a directive or interrogative and appropriate loudness in 'request for clarification' on the BISAP ADDENDUM.

Table 17 : Profile of Scores on BISAP Addendum for all Subjects

BISAP Parameters		Normal Language Group					Rehabilitated Language Impaired Group				
		N1	N2	N3	N4	N5	S1	S2	S3	S4	S5
Response To Clarification Request	Eye Contact										
	Awareness										
	No Inordinate Delay										
	Repetition of Original Utterance										
	Revision of Linguistic Form	X	X					X	X	X	
Request For Clarification	Eye Contact										
	Declarative Statement										X
	Directive or Interrogative			X			X		X		X
	Loudness						X				X
Ability To Turntake	Response Foll.s Prev. Utterance										
	Appropriate Pause Time										
	No Overlap With Interlocutor										
	Concise Quantity of Utterance										
Response Contingency	Response Follows Immediately										
	Syntactic Match										
	Semantic Match										
	Elliptic Response										
	Expansion of Prev. Utterance									X	X
Topic Maintainance	Spontaneous Utterance	X				X					X
	Intro.s New Topic at Logical Time	X				X					X
	Sufficient Relevant Info.	X				X					X
	Relates and Contributes to Topic	X				X					X
	Sequential, Logical, Completion of Topic	X				X					X

X : Absent or inappropriate

Conversely S2 failed to use revision of linguistic form for the parameter 'response to clarification request' (thus showing appropriate behaviours on the BISAP ADDENDUM than the BISAP). S3 did not use revision of linguistic form for 'response to clarification request', nor a directive or interrogative for 'request for clarification'. Interestingly, this subject had also not used a specific lexical item or rising contour for 'request for information'. S4 failed to use revision of linguistic form for 'response to clarification request' and failed to expand a previous utterance on 'response contingency'. S5 again evidenced the largest number of absent behaviours on the BISAP ADDENDUM, that is lack of a declarative, directive or interrogative in 'request for clarification', lack of expansion of previous utterance for 'response contingency' and an absence of all behaviours necessary for 'topic maintenance'.

It is of interest to note that on the subparameter revision of linguistic form, half the subjects (that is, two in the NL group and three in the RLI group) failed to evidence this behaviour. This mode of response to 'request for clarification' might be regarded as a more sophisticated manner of coping with communicative breakdown, in that it could be argued that linguistic revisions develop at a later age than repetitions. It may then be queried why only half the

subjects in this study used this form if they are at an age at which it is expected that they should evidence this use. However it may be seen that on the BISAP ADDENDUM the parameter 'response to clarification request' comprises both repetitions and revisions and thus the possibility existed that either one or both could have been used. In the same manner, 'request for clarification' could have been achieved either by means of a declarative statement, a directive or an interrogative utterance. On the parameter 'request for clarification', one subject in the NL group and three subjects in the RLI group only used a declarative statement and not an interrogative. The parameter 'topic maintenance' on the BISAP ADDENDUM is interesting in that in two subjects in the NL group and one subject in the RLI group, all subparameters were absent. While this may suggest that it may not be necessary to have topic maintenance to appear normal, or conversely it could be interpreted that the RLI group was as good as, if not better than, the NL group on 'topic maintenance', an alternative possibility exists. This pertains to the issue that 'topic maintenance' was evaluated in this study according to topic initiation preceding 'topic maintenance' and thus if 'topic initiation' did not occur by way of an initial spontaneous utterance, other related subparameters were affected. Had this parameter been differentiated between 'topic maintenance' of a child's

initiated topic versus 'topic maintenance' which occurs in response to a topic generated by an adult interlocutor, alternative findings may have emerged.

Figure 7 presents total scores obtained by each subject on the BISAP, BISAP ADDENDUM and combined measures. The NL group showed less within-group variability on total BISAP scores with two subjects N2 and N3 reaching the criterion of 40 whereas none of the other three NL obtained scores below 35. More within-group variability was evident in terms of total scores obtained on the BISAP by RLI subjects than by NL subjects. One subject S1 achieved the criterion score of 40 while another subject S5 obtained the lowest score which was 28. There was also some within-group variability on total scores on the BISAP ADDENDUM. This was more apparent in the RLI group where the maximum score was 21 and the minimum 12. Likewise, the total on combined scores for the BISAP and BISAP ADDENDUM reveals for example that the maximum grand total score for the RLI group was 61 for S1 while the minimum score was 41 for S5.

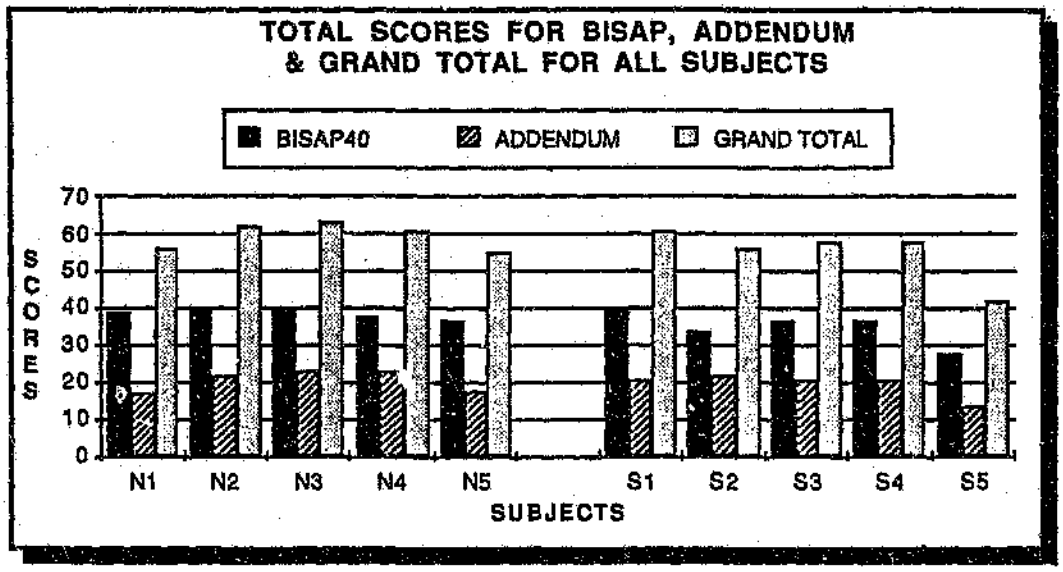

Figure 7: Total scores for BISAP, BISAP ADDENDUM and grand total for all subjects.

WITHIN-GROUP VARIABILITY ON THE DESB

Figures 8 to 17 present each subjects' scores on 14 behavioural factors as they relate to kindergarten means (provided in the DESB manual). Within-group variability is evident for both the RLI and the NL groups on all the DESB factors. By examining all figures depicting individual DESB scores, it may be seen that on the factor 'classroom disturbance' for instance, one subject in the NL group (N1) obtained a score of 5, whereas another subject (N5) within the same group obtained a score of 16. Similarly a range of scores was evidenced in the RLI group in that the

minimum score obtained on this factor was 5 (S3), whereas the maximum score was 21 (S1). A range of scores across subjects in both the RLI and the NL groups for all DESB factors is evident from Figures 8 to 17. Each DESB factor is explained following the presentation of the figures.

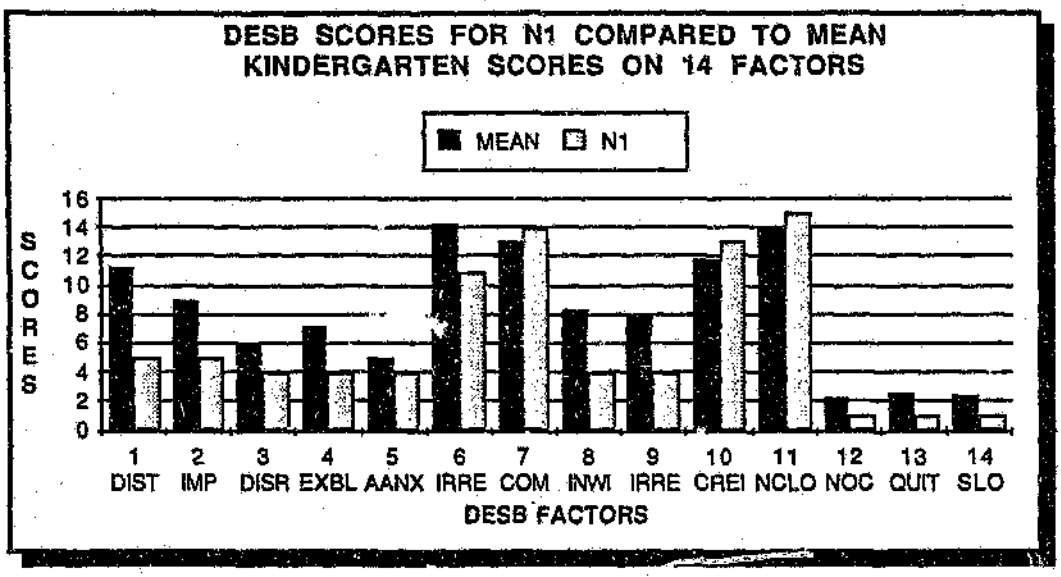

Figure 8: DESB scores for N1 compared to mean kindergarten scores on 14 factors.

K E Y
1 - Classroom Disturbance
2 - Impatience
3 - Disrespect - Defiance
4 - External Blame
5 - Achievement Anxiety
6 - External Reliance
7 - Comprehension
8 - Inattentive - Withdrawn
9 - Irrelevant - Responsiveness
10 - Creative Initiative
11 - Need Closeness to Teacher

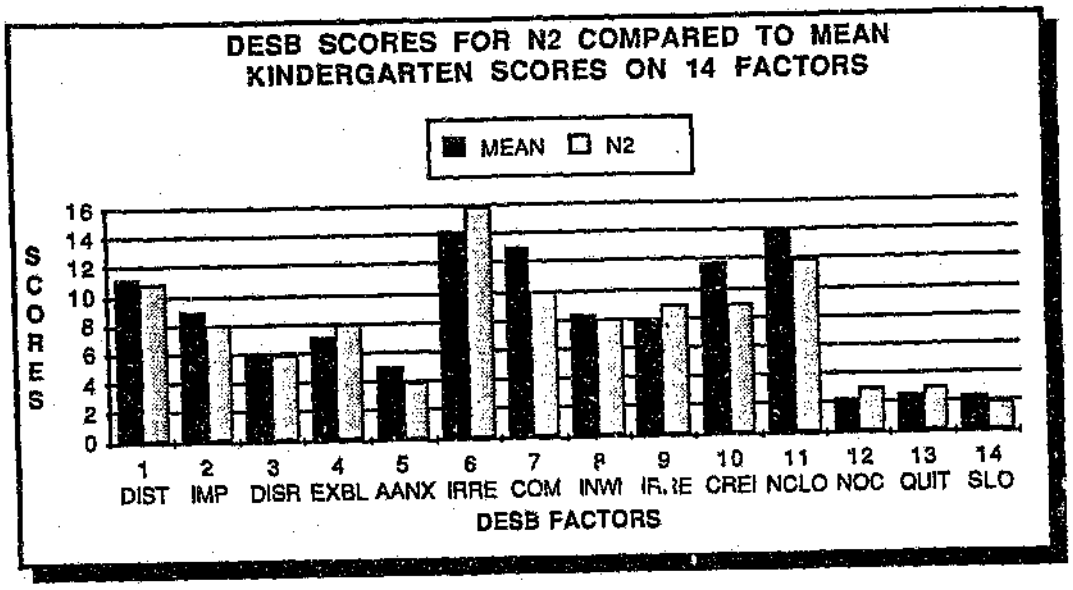

Figure 9: DESB scores for N2 compared to mean kindergarten scores on 14 factors.

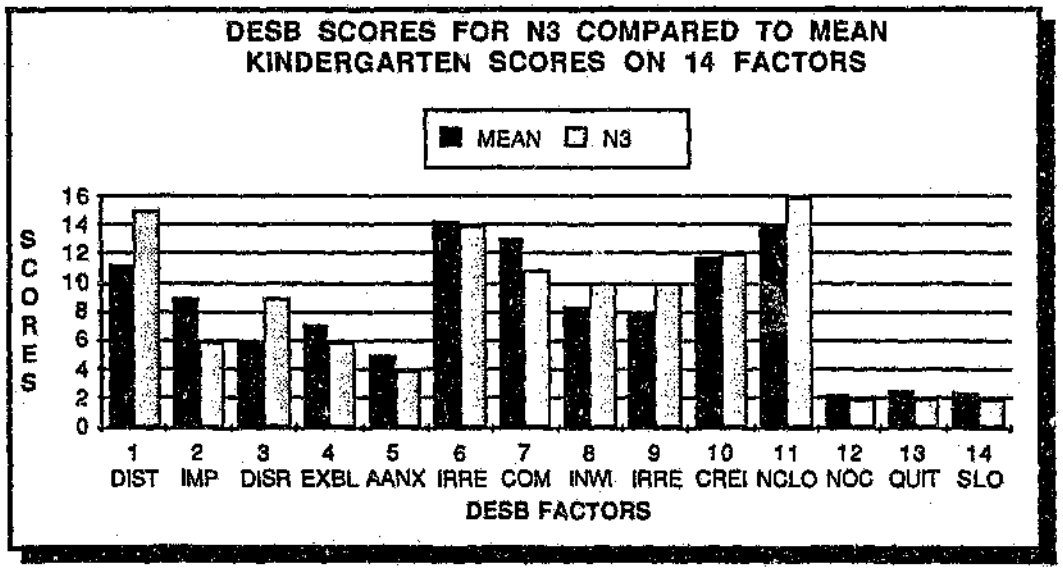

Figure 10: DESB scores for N3 compared to mean kindergarten scores on 14 factors.

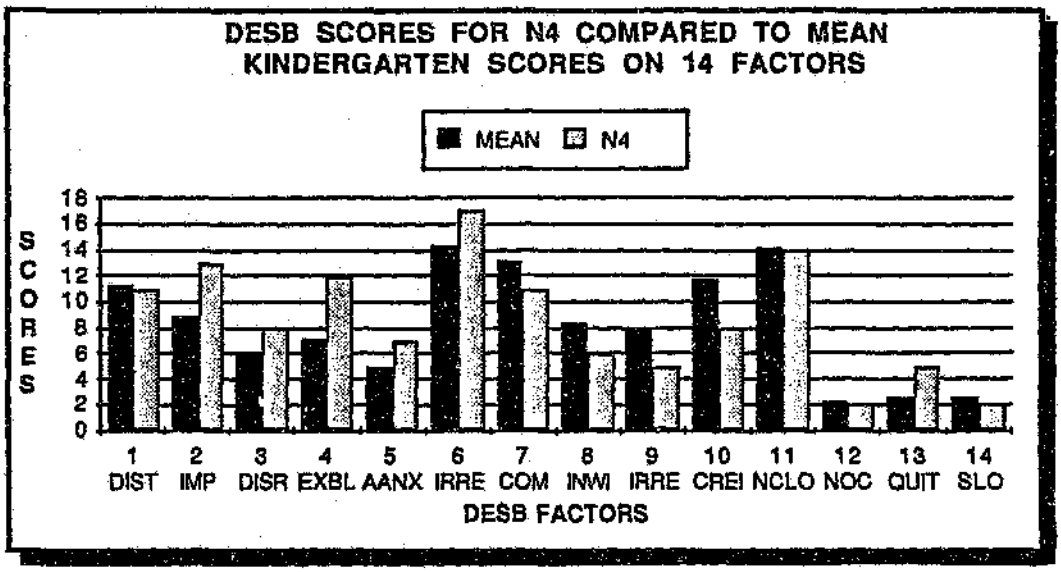

Figure 11: DESB scores for N4 compared to mean kindergarten scores on 14 factors.

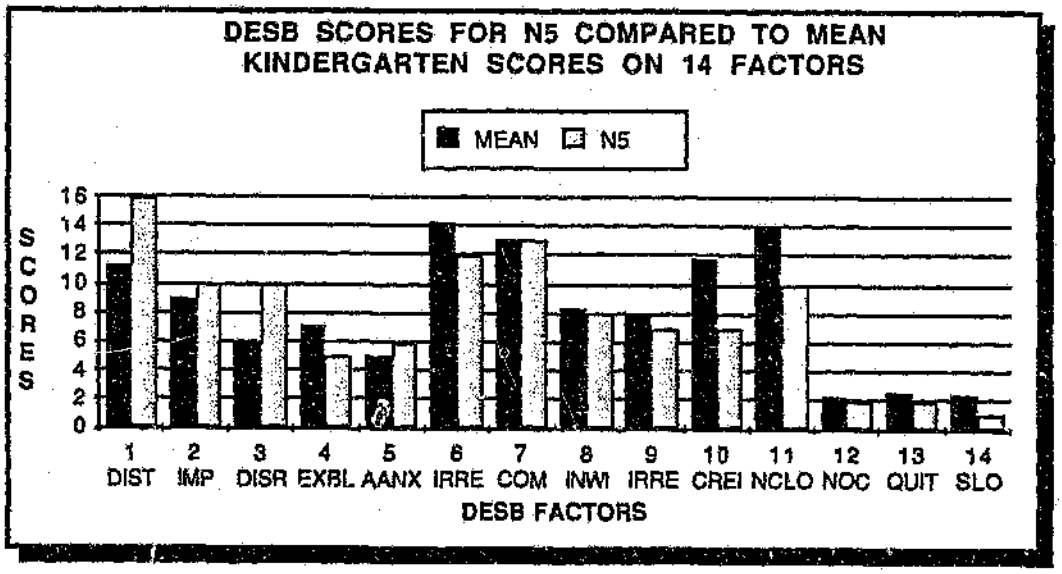

Figure 12: DESB scores for N5 compared to mean kindergarten scores on 14 factors.

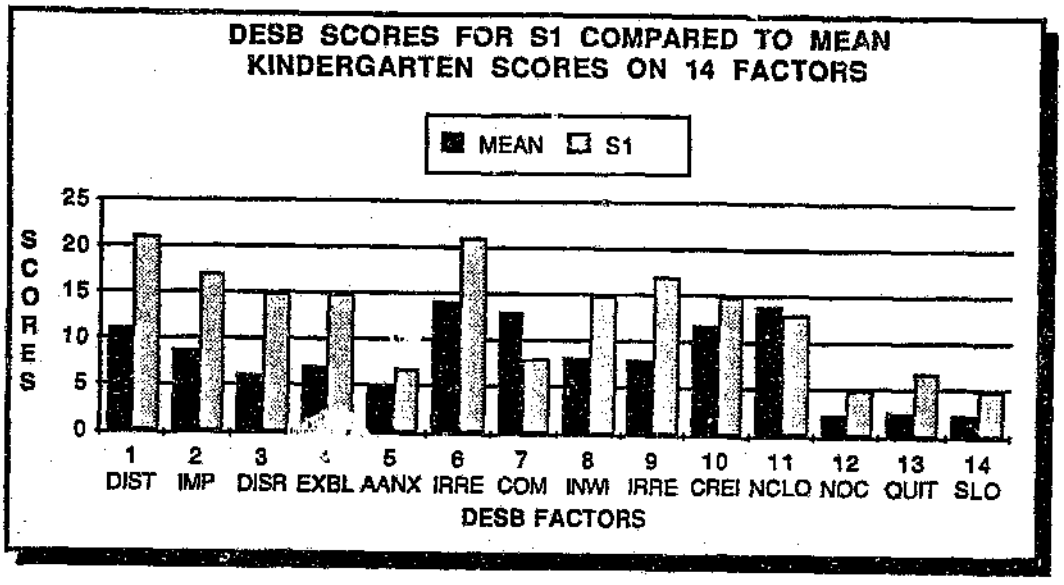

Figure 13. DESB scores for S1 compared to mean kindergarten scores on 14 factors.

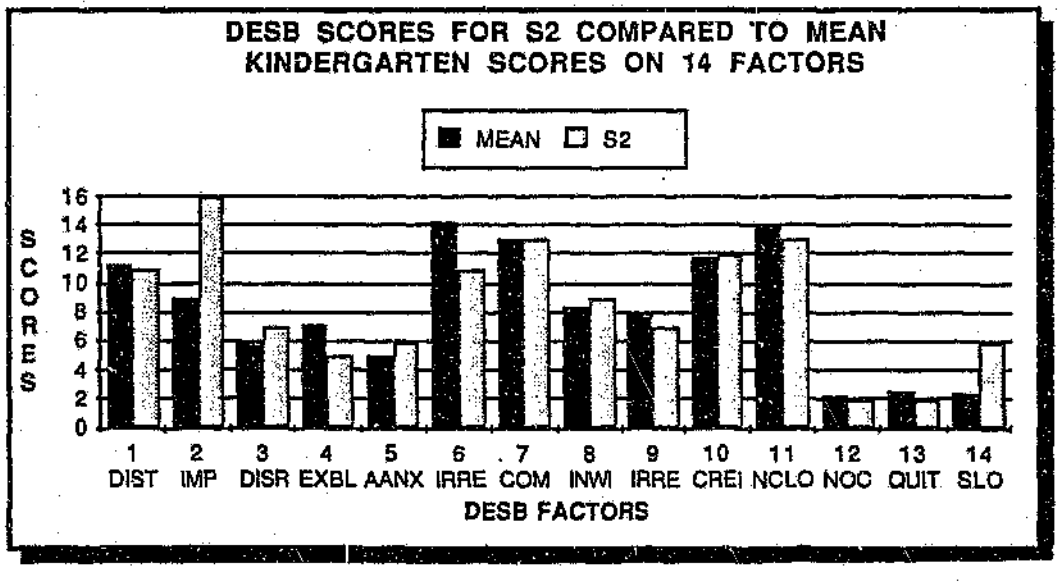

Figure 14. DESB scores for S2 compared to mean kindergarten scores on 14 factors.

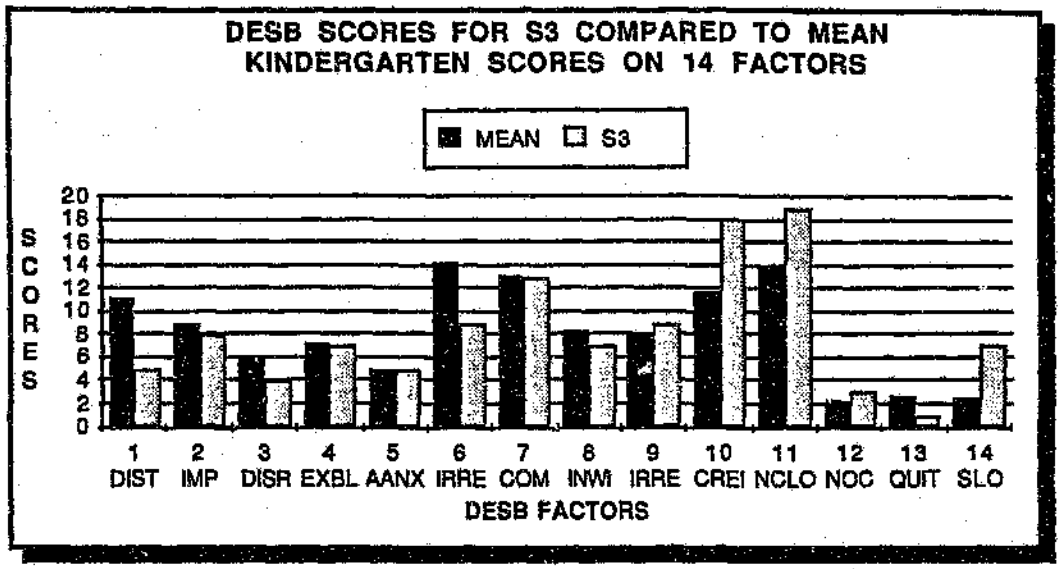

Figure 15: DESB scores for S3 compared to mean kindergarten scores on 14 factors.

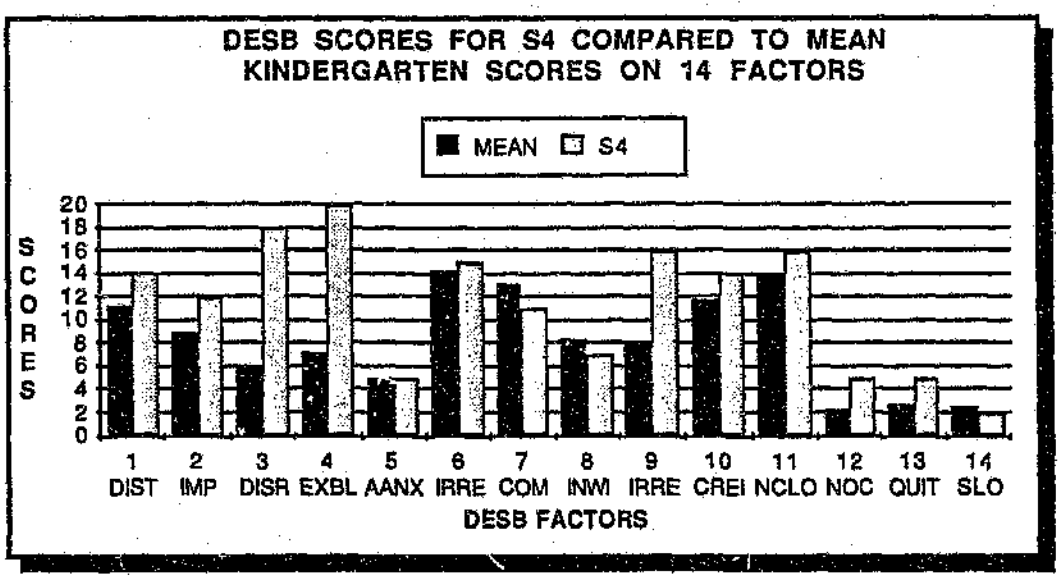

Figure 16: DESB scores for S4 compared to mean kindergarten scores on 14 factors.

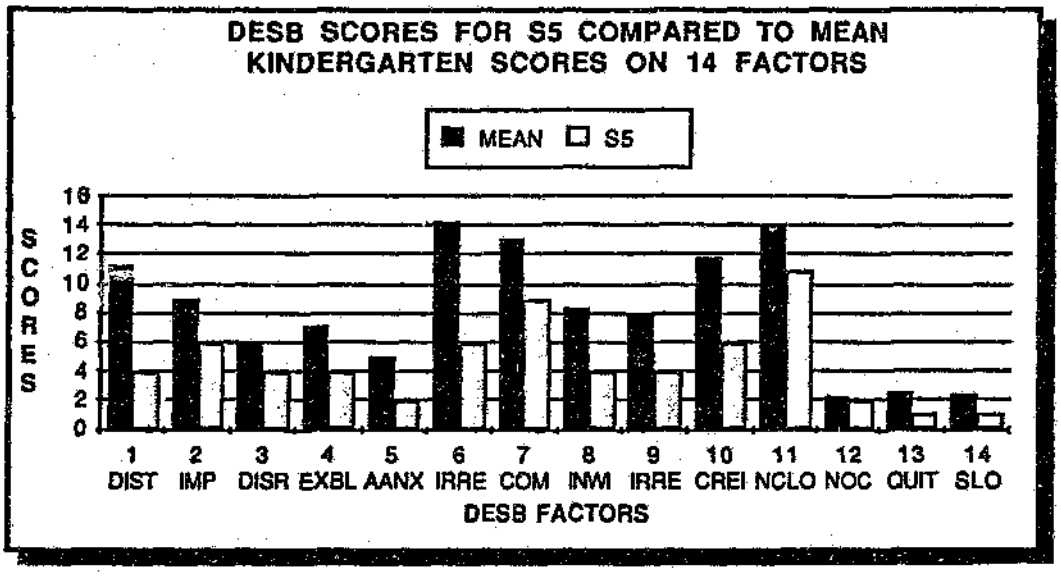

Figure 17: DESB scores for S5 compared to mean kindergarten scores on 14 factors.

In the ensuing section, rather than reiterating on the variation in scores among individuals, the discussion will focus on an interpretation of various scores in terms of how these scores relate to kindergarten means. Pertinent findings will be discussed separately for each DESB factor.

According to the DESB manual (Spivack and Swift, 1967), the mid range of scores on the first factor, 'classroom disturbance', is between 6 and 14 for kindergarteners. Children who evidence scores in excess of 14 are described as requiring more teacher control to reduce this behaviour in order that it not interfere with

learning. Conversely, children who obtain scores below the lower limit of the expected range are described as being overinhibited or fearful, which is also regarded negatively in the learning context. In the present study, two subjects in the NL group (N5 and N3) obtained higher than average scores on 'classroom disturbance', that is, scores of 16 and 15 respectively, whereas only one subject in the RLI group (S1) obtained the high score of 21 on this factor. Lower than average scores were obtained by one subject in the NL group (N1), who obtained a score of 5, whereas two subjects in the RLI group obtained lower scores, that is, S3 received a score of 5 and S5 obtained a score of 4.

For the second factor, 'impatience', the normal range of scores is between 5 and 14. Scores higher than 14 implicate impulsivity and lack of reflectiveness in regard to work assigned in class, whereas scores below 5 (together with low scores on, for example, 'classroom disturbance') may be indicative of a low drive and poor achievement. In the present study two subjects in the RLI group received high scores on this factor, that is, S1 obtained a score of 17 while S2 obtained a score of 16. No subjects in the NL group received scores in excess of 14 on this factor. Conversely, neither RLI subjects nor NL subjects received scores lower than 5 on this factor.

The third factor on the DESB, that is, 'disrespect-defiance' relates to the extent to which issues such as disrespect or resistance interfere with learning. A score of 9 or more suggests there is a disruption in the relationship between the child and the academic setting. In the RLI group two subjects obtained higher scores, that is S1 obtained a score of 15 and S4 obtained a score of 18. In the NL group N3 received a score of 9 while N5 obtained a score of 10 on this factor.

On Factor 4, 'external blame', a score of 11 or more suggests that a child is not able to meet the demands of the learning situation in that success or failure are not self determined. In this study two subjects in the RLI group received high scores on this factor, that is, S1 obtained a score of 15 while S4 obtained a score of 20. Only one subject in the NL group (N4) received a high score (12).

The fifth factor 'achievement anxiety', is described as pertaining to academic achievement. A score of 13 or more is suggested to be problematic. There were no subjects in either the RLI or NL groups who obtained high scores on this factor.

Factor 6, that is 'external reliance' is said to access the degree to which reliance on a teacher affects independent decision making. The normal range of scores on this factor is between 8 and 19. Children who obtain scores in excess of 19 are described as being overly reliant, whereas those who obtain scores of less than 8 might be overinhibited or too reticent to seek help (and this is especially the case when coupled with other low factor scores). In the present study two subjects in the RLI group obtained scores that were out of the normal range, that is S1 received a higher than normal score (21), whereas S5 received a lower than normal score (6). None of the subjects in the NL group received scores out of the normal range on this factor.

Factor 7, which is 'comprehension', relates to whether or not children understand and can apply material conveyed in class. The normal range of scores on this factor is said to be between 10 and 16. Children who obtain scores of 9 or less are described as having problems in comprehending classroom demands which in turn would have a negative effect on achievement. Once again, there were two subjects in the RLI group who obtained scores out of the normal range on this factor, that is, S1 received a score of 8 and S5 received a score of 9. All subjects in the NL group again obtained scores within the average range.

Factor 8, that is 'inattentive-withdrawn' relates to the child's ability to be cognizant of events occurring in class. Scores of 15 or in excess of this number suggest an inability on the part of the child to maintain attention necessary for learning. On this factor, one subject in the RLI group (S1) obtained a score of 15, whereas none of the scores obtained by subjects in the NL group reached this score.

The ninth factor 'irrelevant-responsiveness', pertains to the degree to which a child's verbal responses in class are judged to be irrelevant, exaggerated, intrusive or untruthful, that is, inappropriate, noncontributory behaviours. Scores of 11 or more on this factor are suggestive of problems. Two subjects in the RLI group received scores in excess of 11, that is S1 and S4 obtained scores of 17 and 16 respectively, whereas none of the NL subjects received high scores on this factor.

The tenth factor, 'creative-initiative' relates to whether or not there is evidence of active personal involvement and motivation to contribute to the learning situation. Scores of 7 or less on this factor suggest that these positive dimensions are limited, whereas scores above 15 are related to high achievement (especially if there is also a high score on 'comprehension'). Two subjects in the RLI group

received scores of 15 (S1) and higher (S3). Interestingly, none of the subjects in the NL group obtained high scores on this positive factor. On the contrary, N5 obtained a low score on this factor.

Factor 11, which is 'need for closeness to the teacher', relates to the child being able to seek help from the teacher. The average range of scores on this factor is between 10 and 19 and scores above or below this range may indicate too high or too low a need for closeness with the teacher. All subjects obtained scores in the average range on this factor.

On the final three dimensions, high scores are suggestive of an inability to cope in the school situation. Thus on 'unable to change' the highest scores obtained were for two subjects in the RLI group, that is, both S1 and S4 obtained scores of 5. On the dimension 'quits' the highest score again, was for a subject in the RLI group, that is, S1 who obtained a score of 7. On 'slow work' S3 obtained a score of 7, whereas none of the NL subjects received a high score on this factor.

An additional aim of the present study was to determine the extent of the relationship that might exist between linguistic, pragmatic and social skill dimensions.

5.2 INTERCORRELATIONS BETWEEN GROUPS

In order to examine how various features that were being measured might correlate with each other, it was decided to focus on a combined group (n=10) of RLI and NL subjects. The reason for combining the groups for the purpose of investigating potential relationships is that no statistically significant differences had emerged between these two groups according to the Mann-Whitney U Test. Furthermore, it was believed that the larger sample size would strengthen decisions regarding potential correlations. The Spearman rank correlation coefficient was used to ascertain interrelationships. The results displayed in Tables 18 to 26 indicate that a number of correlations were found, some of which had low and others which had high levels of significance. Tables that depict intercorrelations of parameters within measures are presented first, followed by tables that display intercorrelations between measures. A few of these correlations will be highlighted for discussion.

Table 18 : Intercorrelations : LARSP

	Total No. of Sentences	Mean No. of Sent./Turn	% Spontaneity	% Elliptic Responses	% Major Responses	% "O" Responses	% Structural Abnormality
Total No. of Sentences	1.00						
Mean No. Sentences/Turn	0.27	1.00					
% Spontaneity	0.14	0.88****	1.00				
% Elliptic Responses	-0.07	-0.13	0.08	1.00			
% Major Responses	-0.43	-0.37	0.03	0.41	1.00		
% "O" Responses	-0.62	0.03	0.21	0.17	0.18	1.00	
% Structural Abnormality	-0.32	-0.35	-0.42	0.42	-0.20	0.19	1.00

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 19 : Intercorrelations : BISAP/BISAP Addendum

	Request for Object	Request for Action	Assertion	Denial	Statement of Information	Request for Information	Calling or Summons	Rule Order
Request for Object	1.00							
Request for Action	0.82**	1.00						
Assertion	0.12	0.39	1.00					
Denial	0.75*	0.86****	0.56	1.00				
Statement of Information	0.42	0.70*	0.70*	0.56	1.00			
Request for Information	0.52	0.70*	0.39	0.88****	0.39	1.00		
Calling or Summons	0.62	0.55	0.55	0.76*	0.25	0.55	1.00	
Rule Order	0.35	0.56	0.86****	0.70*	0.56	0.56	0.76*	1.00
Response to Clarif. Request	0.61	0.76*	0.76*	0.86****	0.76*	0.76*	0.68*	0.86****
Request for Clarification	0.24	0.52	0.12	0.75*	0.12	0.76*	0.31	0.35
Ability to Turn Take	0.61	0.76*	0.76*	0.86****	0.76*	0.76*	0.68*	0.86****
Response Contingency	0.52	0.70*	0.70*	0.86****	0.39	0.70*	0.86****	0.86****
Topic Maintenance	0.74*	0.46	0.34	0.69*	0.12	0.46	0.81***	0.57
Total Score (40)	0.72*	0.76**	0.33	0.76**	0.46	0.64*	0.65*	0.47
Total Score (Addendum)	0.65*	0.42	0.05	0.65*	-0.11	0.57	0.65*	0.40
Overall Total Score	0.89****	0.66*	0.14	0.64*	0.26	0.53	0.67*	0.37

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 20 : Intercorrelations : BISAP and BISAP Addendum cont.

	Response to Clarif. Request	Request for Clarif.	Ability to Turn Take	Response Contin-gency	Topic Maint.	Total Score [40]	Total Score [Addendum]	Overall Total Score
Request for Object								
Request for Action								
Assertion								
Denial								
Statement of Information								
Request for Information								
Calling or Summons								
Rule Order								
Response to Clarif. Request	1.00							
Request for Clarification	0.61	1.00						
Ability to Turn Take	1.0****	0.61	1.00					
Response Contingency	0.76*	0.52	0.76*	1.00				
Topic Maintenance	0.61	0.16	0.61	0.67*	1.00			
Total Score (40)	0.52	0.15	0.52	0.64*	0.49	1.00		
Total Score (Addendum)	0.51	0.33	0.51	0.57	0.85***	0.45	1.00	
Overall Total Score	0.51	0.11	0.51	0.53	0.79**	0.82***	0.80**	1.00

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 21 : Intercorrelations : DESB

		Class Disturb-ance	Impatience	Disrespect /Defiance	External Blame	Achievement Anxiety		External Reliance
						Total (T)	Kinder (K)	
Class Disturbance		1.00						
Impatience		0.55	1.00					
Disrespect/Defiance		0.90****	0.62	1.00				
External Blame		0.52	0.62	0.65*	1.00			
Achievement Anxiety	K	0.56	0.88****	0.56	0.52	0.90****		
	T	0.32	0.82***	0.24	0.44	1.00		
External Reliance		0.70*	0.56	0.69*	0.78**	0.46	0.56	1.00
Comprehension		-0.23	-0.26	-0.28	-0.44	-0.02	0.03	-0.47
Inattentive/Withdrawn		0.79**	0.51	0.58	0.36	0.35	0.40	0.47
Irrelevant Responsiveness		0.70*	0.44	0.68*	0.76**	0.20	0.29	0.56
Creative Initiative		0.14	0.19	0.13	0.44	0.28	0.22	0.13
Need Closeness		-0.11	-0.14	-0.01	0.33	-0.08	-0.03	-0.02
Unable to Change		0.40	0.52	0.49	0.83***	0.31	0.28	0.47
Quits		0.72*	0.75*	0.80***	0.85***	0.51	0.64*	0.94****
Slow Work		0.13	0.56	0.09	0.50	0.59	0.45	0.17

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 22 : Intercorrelations : DESB cont.

	Compre-hension	Inattentive Withdrawn	Irrelevant Respon-siveness	Creative Initiative	Need Closeness	Unable to Change	Quits	Slow Work
Class Disturbance								
Impatience								
Disrespect/Defiance								
External Blame								
Achievement Anxiety								
External Reliance								
Comprehension	1.00							
Inattentive/Withdrawn	-0.26	1.00						
Irrelevant Responsiveness	-0.39	0.74*	1.00					
Creative Initiative	0.16	0.27	0.60	[illegible]				
Need Closeness	0.30	-0.05	0.34	0.74*	1.00			
Unable to Change	-0.54	0.41	0.83***	0.51	0.18	1.00		
Quits	-0.53	0.49	0.62	0.13	-0.07	0.60	1.00	
Slow Work	-0.05	0.51	0.56	0.66*	0.47	0.55	0.26	1.00

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Within the LARSP (Table 18) for instance, it may be seen that 'mean number of sentences per turn' correlated with 'percentage spontaneity' at a high significance level. Within the BISAP and BISAP Addendum (Tables 19 and 20), 'response to clarification request' correlated at a high significance level with 'ability to turntake', while 'ability to turntake' correlated at a lower significance level with 'response contingency'. A number of correlations are evident also within the DESB (Tables 21 and 22). For example, 'classroom disturbance' correlated at a high significance level with 'disrespect defiance' and at a lower significance level with 'external reliance'.

Turning now to significant correlations that emerged between LARSP and BISAP/BISAP Addendum parameters. From Table 23, it may be seen that both 'mean number of sentences per turn' and 'percentage spontaneity' on the LARSP correlated at the five percent significance level with 'statement of information' on the BISAP. Further correlations that emerged at the five percent level between LARSP and BISAP parameters were between 'percentage zero responses' and 'denial' and between 'percentage major responses' and 'request for information' and also 'total score'.

Table 23 : Intercorrelations between BISAP/BISAP Addendum and LARSP

	Request for Object	Request for Action	Assertion	Denial	Statement of Information	Request for Information	Calling or Summons	Rule Order
Total No. of Sentences	0.45	0.62	0.01	0.46	0.50	0.07	-0.10	0.15
Mean No. of Sent./Turn	-0.25	0.26	0.59	0.15	0.75*	-0.08	-0.26	0.43
% Sponteneity	-0.06	0.44	0.56	0.27	0.74*	0.13	-0.04	0.46
% Elliptical Responses	0.15	-0.26	-0.11	0.40	0.13	0.38	0.11	0.09
% Major Responses	0.50	0.56	0.13	0.64*	0.26	0.74*	0.51	0.27
% '0' Responses	-0.14	-0.02	0.50	0.64*	0.35	0.23	0.30	0.52
% Structural Abnormality	-0.40	-0.17	0.01	0.21	-0.23	0.32	0.02	0.33

	Response to Clarif. Request	Request for Clarif.	Ability to Turn Take	Response Contin-gency	Topic Maint.	Total Score [40]	Total Score [Addendum]	Overall Total Score
Total No. of Sentences	0.50	-0.07	0.50	0.13	0.06	-0.06	-0.14	0.02
Mean No. of Sent./Turn	0.50	-0.20	0.50	0.10	-0.43	-0.22	-0.58	-0.42
% Sponteneity	0.50	-0.09	0.50	0.26	-0.33	0.17	-0.35	-0.10
% Elliptical Responses	0.50	0.40	0.50	0.01	-0.09	-0.12	0.12	-0.01
% Major Responses	0.50	0.61	0.50	0.44	0.28	0.67*	0.45	0.59
% '0' Responses	0.51	-0.30	0.51	0.14	-0.02	0.20	-0.15	0.02
% Structural Abnormality	0.50	0.30	0.50	0.07	-0.15	-0.57	-0.11	-0.54

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

With regard to the BISAP/BISAP Addendum and the DESB (Table 24 and 25), various significant correlations emerged. For instance, 'request for object' was found to correlate with a number of factors, that is, with 'external blame' at the 0.5 percent significance level and with 'external reliance', 'irrelevant responsiveness' and 'need for closeness' at the five percent significance level. In addition, both 'request for action' and 'request for information' correlated significantly with external reliance, while 'topic maintenance' correlated with 'slow work'.

Table 26 presents intercorrelations between the LARSP and the DESB. It may be seen that the DESB factor 'impatience' correlated with both 'mean number of sentences per turn' and with 'percentage spontaneity' on the LARSP at the five percent and one percent significance levels respectively. Furthermore, the DESB factor 'quits' was found to correlate with the LARSP parameter 'mean number of sentences per turn' at the five percent significance level.

From these results, it is evident that a relationship exists between a number of linguistic, pragmatic and social skill parameters. Following the presentation of tables depicting correlations between parameters for combined groups, relationships are qualitatively explored for three individual subjects.

Table 24 : Intercorrelations Between BISAP/BISAP Addendum and DESB

	Request For Object	Request For Action	Assertion	Denial	Statement Of Information	Request For Information	Calling Or Summons	Rule Order
Class Disturbance	0.41	0.57	0.20	0.65*	0.32	0.72*	0.14	0.28
Impatience	0.29	0.23	0.01	0.55	-0.11	0.50	0.24	0.27
Disrespect/Defiance	0.42	0.51	-0.05	0.58	0.26	0.69*	-0.04	0.09
External Blame	0.84***	0.62	-0.17	0.61	0.23	0.47	0.27	0.09
Achievement	0.33	0.42	0.02	0.65*	-0.11	0.54	0.33	0.37
Anxiety	0.33	0.35	0.17	0.61	-0.11	0.41	0.51	0.49
External Reliance	0.64*	0.65*	-0.05	0.64*	0.17	0.75*	0.39	0.27
Comprehension	-0.12	0.32	0.32	0.59	0.14	0.32	0.27	0.40
Inattentive/Withdrawn	0.38	0.35	0.47	0.61	0.26	0.56	0.42	0.43
Irrelevant Responsiveness	0.72*	0.56	0.20	0.61	0.47	0.44	0.27	0.15
Creative Initiative	0.61	0.53	0.26	0.64*	0.41	0.26	0.51	0.21
Need Closeness	0.66*	0.53	0.04	0.58	0.29	0.20	0.48	0.18
Unable to Change	0.64*	0.47	0.11	0.49	0.47	0.24	0.12	0.13
Quits	-0.07	0.51	-0.11	0.59	0.11	0.70*	0.24	0.19
Slow Work	0.56	0.27	0.27	0.60	0.04	0.20	0.63	0.38

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 25 : Intercorrelations Between BISAP/BISAP Addendum and DESB cont.

		Response To Clarif. Request	Request For Clarif.	Ability To Turn Take	Response Contin-gency	Topic Maint.	Total Score [40]	Total Score [Addendum]	Overall Total Score
Class Disturbance		0.51	0.19	0.51	0.44	0.32	0.47	0.33	0.40
Impatience		0.50	0.24	0.50	0.35	0.52	-0.04	0.36	0.13
Disrespect/Defiance		0.51	0.25	0.51	0.20	0.22	0.26	0.30	0.30
External Blame		0.50	0.19	0.50	0.23	0.59	0.40	0.50	0.64*
Achievement	K	0.50	0.33	0.50	0.54	0.46	0.08	0.35	0.13
Anxiety	T	0.50	0.25	0.50	0.62	0.57	0.11	0.30	0.14
External Reliance		0.50	0.31	0.50	0.44	0.52	0.70*	0.55	0.70*
Comprehension		0.51	0.60	0.51	0.51	-0.11	-0.23	-0.11	-0.35
Innattentive/Withdrawn		0.51	0.00	0.51	0.56	0.63	0.45	0.49	0.50
Irrelevant Responsiveness		0.51	-0.05	0.51	0.29	0.57	0.47	0.38	0.62
Creative Initiative		0.50	0.01	0.50	0.38	0.44	0.30	0.07	0.32
Need Closeness		0.50	0.09	0.50	0.29	0.42	0.20	0.32	0.42
Unable to Change		0.54	-0.07	0.54	0.11	0.48	0.19	0.14	0.39
Quits		0.51	0.28	0.51	0.29	0.50	0.45	0.50	0.50
Slow Work		0.52	0.00	0.52	0.49	0.85***	0.08	0.52	0.42

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

Table 26 : Intercorrelations between DESB and LARSP

	Class Disturb-ance	Impatience	Disrespect /Defiance	External Blame	Achievement Anxiety		External Reliance
					Total (T)	Kinder (K)	
Total No. of Sentences	0.30	0.18	0.40	0.48	0.16	0.34	0.10
Mean No. Sentences/Turn	-0.13	-0.66*	-0.24	-0.54	-0.63	-0.56	-0.60
% Spontaneity	-0.02	-0.80**	-0.18	-0.50	-0.71*	-0.60	-0.38
% Elliptic Responses	-0.26	-0.33	0.01	-0.06	-0.49	-0.27	-0.17
% Major Responses	0.14	-0.21	0.10	0.20	-0.21	-0.19	0.46
% 'O' Responses	0.25	-0.43	-0.30	-0.43	-0.46	-0.54	-0.14
% Structural Abnormality	-0.26	0.24	-0.04	-0.31	0.12	0.23	-0.21

	Compre-hension	Inattentive /Withdrawn	Irrelevant Respon-siveness	Creative Initiative	Need Closeness	Unable to Change	Quits	Slow Work
Total No. of Sentences	0.01	-0.01	0.43	0.40	0.38	0.50	0.16	0.17
Mean No. Sentences/Turn	0.16	-0.19	-0.18	-0.25	-0.17	-0.22	-0.65*	-0.50
% Spontaneity	0.22	-0.12	-0.14	-0.20	0.01	-0.38	-0.56	-0.58
% Elliptic Responses	0.39	-0.43	-0.20	0.09	0.58	-0.34	-0.15	-0.21
% Major Responses	0.11	0.09	0.14	0.11	0.24	-0.09	0.27	-0.11
% 'O' Responses	-0.36	-0.08	-0.26	-0.21	-0.15	-0.37	-0.21	-0.34
% Structural Abnormality	0.21	-0.38	-0.59	-0.35	-0.20	-0.49	-0.05	-0.20

*p<0.05 **p<0.01 ***p<0.005 ****p<0.001

5.3 DESCRIPTION OF INDIVIDUAL PROFILES

The first subject extracted for qualitative analysis is S5, a child who had received intervention for language-impairment at the Language Unit and had then been declared 'remediated'. This subject evidenced a pattern of behaviour, that in a number of instances mirrored interrelationships that occurred for the group as a whole. For example, she obtained a high 'percentage zero responses' on the LARSP together with absent and insufficient subcomponent behaviours for the parameter 'denial' on the BISAP. These findings suggest that within an unstructured context with a familiar interlocutor, S5, on numerous occasions, did not respond to 'question' or 'other' stimuli when provided with the opportunity to do so. Correspondingly, in a structured context with an unfamiliar interlocutor, S5 did not produce a negatively marked utterance within a "sabotage" situation, hence not using 'denial' in order to affect the hearer. Another combination of factors that was evidenced in the profiles of S5, that is, that of 'percentage major responses' on the LARSP and 'total score' on the BISAP, was also similar to the correlation found between these factors for the group as a whole. S5 obtained a low 'percentage major responses' on the LARSP, which according to Crystal (1982), may be suggestive of a dependence on the interlocutor's question structure. She also received a

low 'total score' on the BISAP, which generally is indicative of difficulty in the use of language for communication (Lucas, 1980).

S5's LARSP profile (Appendix E) reveals equivalent use of three and four element utterances. There is evidence of coordination and subordination with a high tally of the 'and' conjunction. For example:

> S5: I painted and I drawed and I cut out and we did stickers.

There was evidence of other conjunctions albeit limited. For example:

> S5: Does it work when you bash it down?
> That sheep is naughty 'cause he's going out.

Related factors that occurred on the BISAP and DESB for S5 were also similar to group correlation trends on these measures. Thus on the BISAP, S5 used no linguistic markers, no specification and insufficient loudness for the parameters 'request for object' and 'request for action' as well as no lexical item on 'request for information'. The following extracts highlight her behaviour for these parameters.

> Interlocutor(I): I want you to do me a drawing.
> (Context - Art materials not readily available)
> S5: No verbal response. Eye gaze.
> I: Could you do me a drawing?
> S5: Head nod.
> I: Mum has the things for drawing.
> S5: No verbal response. Gazes at Mother.
> I: Get Mum to do you a drawing.
> S5: Eye gaze. No verbal response or initiation.

On the DESB, in turn, she received a low score on the factor 'external reliance', which according to Spivack and Swift (1967), could be indicative of a child being overinhibited. This subject also received a lower than average score on the factor 'classroom disturbance'. It might be recalled that for the group, this factor was found to correlate with the factor 'external reliance' within the DESB. Furthermore, a low score on 'classroom disturbance' is also interpreted according to the DESB manual as reflecting overinhibition on the part of the child. There were other absent or inappropriate behaviours that S5 evidenced which were not a feature of the group as a whole. For example, she used neither declarative, directive nor interrogative utterances in order to request clarification, which suggests that she was not able to deal effectively with communicative breakdown. For example,

> Interlocutor(I): I want you to draw me some 'skrits'.
> S5: Eye gaze.
> I: You know the stuff you eat when the weather is hot.
> S5: Head shake.
> I: Have you heard of 'skrits'?
> S5: Head nod.

Other problems noted were related to 'response contingency', that is, no expansion of the previous utterance was evidenced. In addition, no behaviours necessary for topic initiation and maintenance were observed. Her pragmatic profile generally indicates that she did not use various speech acts effectively in

order to satisfy her communicative needs, or to affect the hearer. In that she did not demonstrate effective use of requesting behaviour and also evidenced difficulty in responsive behaviour, S5 might be classified according to Fey (1986), as an 'inactive conversationalist'. S5 also appears to fit the description of the 'reticent child' put forward by Van Kleeck and Street (1982, p.623) who suggested that "...reticent children were less inclined than their more talkative peers to use language to manipulate others".

The second subject highlighted for discussion is S1, a language-impaired child who had received therapy at the Orange Grove Nursery School and who subsequently had been declared remediated. A number of correlations that emerged for the group as a whole were also mirrored in this subject's profiles. Relationships that manifested particularly for S1 were among factors on the DESB. For example, he received high scores on 'classroom disturbance', 'external reliance', 'external blame', 'irrelevant responsiveness' and 'unable to change'. It is of interest to note that, while both S1 and S5 obtained scores that were interpreted as problematic on the factor 'classroom disturbance', their scores were on either end of the continuum. In other words, S5 obtained a score that was below the lower limit (interpreted as overinhibition), whereas S1 obtained a

score that was above the upper extremity (suggestive of teacher control necessary to reduce this behaviour). The same pattern related to problematic scores is apparent for the factor 'external reliance', that is, scores are problematic for S5 in that they are deviant or lacking, whereas those for S1 are deviant by way of being excessive. Generally more problems were identified for S1 by means of the DESB than according to the LARSP or BISAP. From S1's LARSP profile (Appendix E), it can be seen that while a high tally was obtained for three element clauses, syntactic aspects occurring between stages IV to VII were also evidenced. This finding supports observations by French (1988) for five year old children. She suggests that the "pattern of predominantly three element clauses might be due to each stage V structure entailing at least two at earlier stages". The following extracts from S1's language sample highlights examples of his use of varied coordinating and subordinating devices.

> S1: Ma, lets see <u>if</u> he walks in here.
> Let's find a place <u>where</u> we can put this <u>or</u> should this go in the kid's room?

He also evidenced more complex utterances such as:

> S1: Ma, he prefers to park on the outside 'cause he's also the father.

With regard to the BISAP, other than not evidencing subcomponents on the parameter 'request for

clarification' on the BISAP Addendum, S1 exhibited all requisite behaviours.

The following example illustrates the manner in which the behaviour of S1 contrasted with that of S5 for the parameter 'denial' on the BISAP.

> Interlocutor(I): Draw me a stegosaurus.
> S1: I dunno how that goes. I don't even know how that goes.
> S5: No verbal response. Only eye contact.

Likewise, whereas S5 had provided no verbal initiation and only eye gaze for parameter 'request for action', S1 did use his language. For example,

> I: I want you to do me a drawing.
> (Context - Art material not provided)
> S1: I want a piece of paper.

Thus, unlike S5 who failed to use a large number of behaviours on the BISAP, S1 actually reached the criterion score on this measure. These results suggest that in a structured one-to-one context, where an unfamiliar interlocutor attempted to elicit various communicative behaviours, S1 was mostly successful. In contrast, according to a social validation measure which entailed this subject's teacher rating his behaviour within the preschool classroom context, this subject did not fare as well. This finding supports the proposal put forward by Prizant et al. (1990, p.190), that is, that problems may not manifest in one-to-one interactions but "...in environments making great

demand on attention and self-control". A consideration of the items on which S1 was rated for the factor 'irrelevant responsiveness', brings to the fore the nature of some of his problem areas in the classroom situation. These include the following:

> "Tells stories which are exaggerated and untruthful. Gives an answer that has nothing to do with the question being asked. Interrupts when the teacher is talking. Makes irrelevant remarks during classroom discussion". (Spivack and Swift, 1967, p.16)

Additional factors which allow for the identification of difficulties for S1 in terms of the classroom situation, were those of 'comprehension' and 'inattentive withdrawn'. Low scores on the former suggest that, according to the teacher, S1 is unable to comprehend what is taught in class, while high scores on the latter suggest that S1 does not attend to the teacher or to the material taught in class. This subject also received a high score on 'impatience' which suggests an impulsivity and lack of reflection. It seems likely that a combination of lack of attention, poor comprehension and impatience (according to the DESB), together with an absence of 'request for clarification' (on the BISAP) could contribute to 'irrelevant responsiveness'. Based particularly on findings from the DESB , S1 appears to fit into Fey's (1986) classification of a 'verbal noncommunicator', that is, verbally active but unresponsive to the conversational needs of a partner. In addition, aspects

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of this subject's communicative behaviour match characteristics described by Rapin and Allen (1983) for the semantic-pragmatic disordered child. Even though S1 evidenced topic maintenance within a one-to-one situation, the possibility exists (given the aforementioned problems) that he might be less successful on this parameter within the classroom situation. A perplexing finding that emerged for S1, (also evident for the group as a whole), was the inverse correlation between high 'impatience' and low 'mean number of sentences per turn' and between high 'impatience' and low 'spontaneity'. It is possible, however, that there may have been some other underlying factor causing these associations, such as spurious correlations.

One other subject who will receive an individual focus is N5, a child in the NL group, who was reported to have no language problems by both her parents and her teacher. Her LARSP profile revealed a low 'percentage zero responses' and a fairly high 'percentage spontaneity'. Appendix E shows evidence of complementation, for example:

N5: This thing is supposed to be outside.

She also used varied coordinating devices, for example:

N5: I must bring them in the little car <u>'cause</u> the're too many children.
This is <u>what</u> I needed.
<u>When</u> they go outside, they go outside from here.

> 'Cause it's alright if they a bit near the house.
> She couldn't see, so she came out there.

On the BISAP there was an absence of a few requisite subparameters. For instance, she did not use a linguistic marker or specification for the parameter 'request for object'. Besides this single instance, no problems were evidenced on any of the other 'request' parameters. Another absent subparameter noted, was specification for the parameter 'calling/summons'. Of interest was the fact that she did not use any of the subcomponent behaviours for the parameter 'topic maintenance'. With regard to the DESB, she evidenced high scores for both 'classroom disturbance' and 'disrespect defiance' and a low score on 'creative initiative'. Items on the 'creative initiative' factor include the following:

> "Tells stories or describes things in an interesting and colourful fashion (e.g. has an active imagination). Initiates classroom discussion. Introduces into class discussion, personal experiences or things he/she has heard which relate to what is going on in class" (Spivack and Swift, 1967, p.17)

Although this child was described as impatient, disruptive and lacking in initiative, she generally evidenced fewer and more minor problems than those presented by the RLI subject.

CHAPTER 6

DISCUSSION AND CONCLUSION

6.1 INTERPRETATION AND IMPLICATIONS OF RESULTS

The impetus for the present study was provided by a primary motive to attempt to verify whether previously language-impaired children, who were declared 'remediated', did in fact evidence the type of communicative behaviour that might warrant dismissal from a therapy programme. Towards an encompassing appraisal, there was also an interest in investigating aspects of social skills in these children. The additional aim of this study was to investigate the nature of the relationship that might exist among syntactic, pragmatic and social skill dimensions. Findings and the related implications pertaining to each of these aims are discussed in turn.

In an endeavour to access dimensions of communicative abilities and social skills, profiles of both syntactic and pragmatic abilities as well as social skills were obtained for five 'remediated' language-impaired (RLI) subjects. In order to view communicative abilities of RLI subjects in relation to communicative abilities of children who had no history of language impairment,

five additional same age children who were described as 'linguistically normal' (NL), were included as subjects in this study. According to the results, there were no statistically significant differences between a group of RLI subjects and a group of NL subjects with regard to selected aspects of syntactic and pragmatic abilities and social skills. These findings could be interpreted in a number of alternative ways.

It is possible to argue that the lack of statistical between-group differences might reflect that syntactic and pragmatic abilities and social skills of RLI subjects are as good as those of NL subjects. Based on this line of reasoning, these findings could be interpreted as being confirmation of the fact that intervention appears to have been successful for the group of RLI subjects involved in this study. This interpretation is feasible in light of the nature of the intervention programme in which these particular RLI subjects had been involved. From the description of the therapy context in Chapter 4, it is apparent that the Language Unit seemingly provided optimal opportunity for a positive treatment outcome. It might even be feasible to extend the argument further to suggest that therapists seemed to have been astute in their perception of remediation. The interpretation which suggests that communicative abilities of the RLI subjects are adequate by virtue of not differing

significantly from those of NL subjects should be viewed prudently however, for a number of reasons. Firstly, as indicated in Chapter 5, lack of statistical between-group differences could be attributed to the fact that each group comprised only a small number of subjects and to the phenomenon of within-group variability. Within-group variability evidenced in both the RLI and NL groups suggests that individual variation within these populations is not dissimilar to the heterogeneity described by various authorities for the language-impaired population (Bashir et al., 1983; Kirchner and Skarakis-Doyle, 1983; Leonard, 1983; Muma, 1983). Also, especially in preschool children, heterogeneity is expected because of different developmental rates. Considering the extent of intersubject variation, it might be questionable to even expect that any distinguishing feature would emerge from between-group comparisons. There is even a possibility that 'linguistically normal' subjects were not uniformly competent communicators. It would seem that a much larger sample size is needed in order to make firm interpretations regarding differences between RLI and NL subjects. From this point of view, the present study can thus merely yield a starting point in the investigation of communicative abilities in RLI children.

It is also possible that the measures and analyses used, despite being sensitive and detailed might not have picked up the essential features of particular deficits that may have remained in the RLI group. It is possible that even though three contexts were drawn upon in the present study, these may not have been sufficient for purposes of providing opportunity for all communicative behaviours to occur. The concept of "...variability within the same child in different contexts..." has been raised by Fey (1986, p.40). It has also been stated that "...the more contexts sampled, the greater the likelihood of representing the individual's repertoire" (Muma, 1983, p.198). Contexts may have restricted syntactic structures as well as pragmatic parameters evidenced. Lack of comprehensiveness measured in these terms could possibly have influenced the findings, that is, groups may have been differentiated more easily given sampling in additional contexts over an extended period of time.

The possibility also exists that the particular contexts utilized may not have picked up the essential features of a potential deficit that may have remained in the RLI group. It is not unlikely for instance that even though subjects were able to communicate adequately with a familiar interlocutor, or within a dyadic situation, they might have performed less optimally in other situations, such as for example,

within the classroom context in a group situation. In fact, this was highlighted in presenting individual profiles which are discussed later in this section. Also, the condition which allowed for only single instances of occurrence for particular speech acts in order to decide whether or not they were present may have been too stringent. If the criterion had been set for minimally three occurrences, more representative data for both groups may have emerged.

Given these considerations, it is probably best to exercise caution regarding 'once-off' judgements on observations of communicative behaviour of subjects in limited contexts.

Besides taking the number of contexts into account, it is pertinent also to evaluate the number and type of parameters examined in the present study in relation to the interpretation of lack of between-group differences. It is possible for instance that parameters other than the ones utilized in this study, might have been the ones that illustrated subjects' communicative abilities more representatively. This in turn may have yielded larger between-group differences. As indicated in Chapter 3, the literature reveals that up to the present time, studies have focussed on a limited number of parameters and often superficially. While the present study does not presume to be

comprehensive in terms of all dimensions of communicative abilities, it nevertheless does deal with a larger number of parameters than have other studies. However, in order to glean extended descriptive data, it was necessary to confine to an extent the amou of features investigated. This restriction might have influenced findings, despite the attempt to retain what was believed to be the most salient parameters for characterizing communicative abilities. Duchan (1984, p.174) cautions against "...the perceptual distortion of a priori categories...".

With regard to syntactic dimensions, it is possible that parameters chosen for statistical analysis might not have been the quintessential ones to differentiate between the groups.

Thus, notwithstanding the large number of parameters investigated, the present study can once again only extract trends regarding communicative abilities in RLI and LI groups.

An additional factor that may have influenced findings relates to analyses of data. That is, even though parameters selected may have been the salient ones for differentiation, actual analyses of these parameters may not have been sufficiently molecular so as to be sensitive to fine grained differences between groups.

This issue may be explained by way of the example of the manner in which the parameter of topic maintenance could be analysed. In the present study topic initiation and topic maintenance were investigated in a general sense. More differences may have emerged if abilities in topic maintenance in relation to self initiated utterances had been distinguished from topic maintenance abilities related to utterances generated by the interlocutor.

Reservations that relate to findings regarding pragmatic and syntactic abilities from comparisons between the RLI and NL groups may also apply to findings pertaining to social skills.

Lack of statistical differences between the RLI and NL groups on social skill factors were also probably influenced by sample size, within-group variability and sensitivity and inclusiveness of the measures utilized. Despite fourteen factors being tapped by the DESB, it is possible that other social skill factors might exist that could yield statistical differences. Social skills on the DESB were only measured in terms of classroom behaviours and it is possible that subjects may have evidenced different social skills not measured by the DESB. Furthermore had parental reports been included, further differences might have emerged.

In so much as the aforementioned variables preclude categorical interpretations regarding status of remediation for the group of RLI subjects, it is pertinent to look into what might be deduced from the qualitative analyses of individual subjects' results.

Certainly some individual profiles within the RLI group lead one to believe that communicative problems could be evident following dismissal from a therapy programme. What is more, it appears that the patterns of the deficit may be discrete. It is not unexpected that problems indicated on individual profiles were not readily apparent from group data, if one considers suggestions that group means conceal individual differences (Bloom and Fischer, 1982; Hegde, 1987). Also, given that heterogeneity is an anticipated phenomenon in the clinical population (Muma, 1983), it is not surprising that patterns of deficit were not uniform across subjects.

The nature of the problems evidenced in individual profiles appear to be related to ineffective use of language in different contexts. Of the two RLI subjects focussed on in the previous chapter, one subject clearly evidenced an inability to use language in a flexible manner and a lack of strategies within a communicatively demanding situation. The other subject, although seemingly an adequate communicator within a

structured dyadic situation, was identified by means of a teacher rating scale as exhibiting communicative problems within the classroom context.

Based on these observations, it might be suggested that clinicians who had declared these children remediated, had not taken account of potential difficulties relative to the context of their occurrence. Implications attached to the fact that deficits were identified in some contexts and not others, according to measures utilized, ratify Duchan's (1984) proposal for how language disorders ought to be conceptualized. She calls for "...a much more context bound... conceptualization...which allows for thinking that a child may have a disorder under some conditions and not under others..." (Duchan, 1984, p.177). Implications are evident for a move from evaluations that are bound to the clinical context to incorporate appraisals of communicative functioning in real life situations.

Further inferences might be that the measure according to which these children had been declared remediated, had not allowed for the identification of subtle aspects of persisting communicative problems. It appears that the standardized linguistic test utilized by these clinicians had not provided a dynamic measure of communication. Therefore, beacause the measures utilized in the present study did allow for the

identification of deficits, consideration of measures such as these seem justified for decisions regarding remediation. Especially noteworthy is that, even though measures incorporated in the present investigation were comprehensive, each measure in itself did not provide an all inclusive description of communicative abilities. This is exemplified particularly by results for the subject whose DESB profile highlighted deficits that were not readily apparent according to other measures utilized. This supports Prutting and Kirchner's (1983, p.59) suggestion that " a linguistic profile alone does not necessarily predict the child's effectiveness as a social interactant". It is then clear why measurement batteries and multi-dimensional evaluations are indicated.

An additional inference that might be made with respect to problems evidenced in individual subjects' profiles is one that has bearing on the nature of the intervention programme that RLI subjects had undergone. It might be suggested that the programme which essentially focussed on training syntactic structures had been insufficient by way of overlooking communicative strategies that could have been imparted. Instances where subjects were found lacking in strategies for dealing with a communicatively demanding situation confirm suggestions that training linguistic forms only is insufficient (Leonard, 1981). This

finding is also in agreement with that of Nye, Foster and Seaman (1987), who concluded from a quantitative analysis of treatment outcomes from three studies in the literature, that pragmatic functioning did not improve as a result of language intervention.

Issues raised lend weight to the cautionary note sounded by Kemp (1983), cited in Chapter 1 which pertains to premature dismissal on the basis of linguistic competence alone. This concern is elaborated in the following quotation: "Basic linguistic competence is only one component of the knowledge that speaker-hearers must have in order to participate in a meaningful way in those settings in which speaking occurs" (Ervin-Tripp and Mitchell-Kernan, 1977, p.6) Implications are evident for specific coaching of discourse skills and for providing opportunities for the child, for instance, to use language to regulate behaviours of interlocutors (Bedrosian and Willis, 1987; Mann-Mandelbaum, 1990; Norris and Hoffman, 1990; Olswang, Kriegsman and Mastergeorge, 1982) The fact that distinct profiles emerged supports Kazdin's (1982, p.14) proposal for "...providing a treatment that is individualized to meet the patient's needs in an optimal fashion.

The observation that some apparently linguistically normal subjects also evidenced communicative problems, albeit to a lesser extent, confirms perceptions that yet more information is needed with regard to what communicative competence actually encompasses in the preschool population.

Thus far, the discussion has focussed on the interpretation of findings related to communicative abilities of subjects in this study. Generally, while group findings suggested that dismissal from intervention may have been warranted, individual profiles suggested the converse. At this point the discussion turns to findings regarding the investigation into potential interrelationships among syntactic, pragmatic and social skill dimensions.

Probably the most substantial implications that emerged from the present study were those that related to the major finding that significant correlations did indeed manifest among linguistic, pragmatic and social skill abilities for a combined group of RLI and NL subjects. These findings support proposals pertaining to the expected interrelationship among linguistic, pragmatic and social skill dimensions. The finding gives insight into the nature of pragmatics. The interrelationship suggests that pragmatics is more than language and more than a taxonomy of speech acts; that it involves a

combination of linguistic and social skill factors. It suggests that aspects of a pragmatically based deficit, for example linguistic problems, might not manifest in certain contexts given an adeptness in social skills, but especially when social skills are implicated, it is likely to manifest in other contexts. The findings also suggest that an individual's performance across a range of measures is likely to be correlated. Clinical implications for the interrelationships have bearing on diagnostic, therapeutic and remediation issues. It is clear that all stages of intervention should be approached in an integrated manner. The approach to assessment should consider the numerous dimensions which make for adequate use of language in context and the nature of the relationship that may be involved. Evidence of a deficit seemingly only on a syntactic level, for instance, should alert the clinician toward potential manifestation of related difficulties in use and social skills. Similarly, rather than a fragmented unidimensional approach to intervention, therapy goals should incorporate interrelated facets. Furthermore in the formulation of dismissal criteria, cognizance should be taken of the multidimensional, interrelated, context-dependant nature of communicative competence and thus the need for all-inclusive remediation criteria.

6.2 EVALUATION OF MEASURES USED

Although measures utilized in the present study encompassed fairly broad parameters, they nevertheless allowed for a delineation of specific aspects of communicative problems that necessitated intervention. The potential for extraction of implied therapy goals seemed especially straightforward with regard to subparameters on the BISAP and the Addendum to the BISAP. An exception was for the parameter 'topic maintenance', which appeared to require a molecular analysis. In addition items on the DESB seemed to require a more fine-grained analysis. While this might be construed as a limitation pertaining to the measures and analyses utilized, Prutting and Kirchner's (1983, p.44) premise bears consideration. They suggested that "...the level of assessment should be no finer than would be functional in the therapeutic sense". Distinct clinical application possibilities are evident for the appraisal mode employed in the present study. This is because of the perceived potential for extraction of therapy aims, the observed ease, efficiency and uniformity of administration and rating, as well as the high interrater reliability that was evidenced. These measures might, however, best be utilized as first stage assessment procedures for reasons that explication was indicated with regard to some of the identified deficits. Use of measures such

as these as screening procedures, particularly the BISAP/BISAP Addendum, should promote the identification of 'at risk' factors. This, in turn, would allow for the institution of preventative measures prior to commencement of formal schooling. As an alternative form of service delivery, teachers could be trained to routinely implement these evaluations which should facilitate timely referrals.

6.3 CONCLUSION

The broad-based perspective from which the present study was approached, facilitated an encompassing appraisal of communicative functioning. So as to achieve an integrated evaluation, a multidimensional approach was adopted, which drew information from sources including linguistic, pragmatic and social skill profiles. By way of a quantitative and qualitative appraisal of these profiles, it was possible to achieve an indication of strengths and weaknesses with respect to communication and social skills for each subject. Qualitative description of subcomponent behaviours contributed to a dynamic assessment of communicative abilities. Generally, the evaluation was more molar than molecular. The molecular element included delineation of problematic subcomponent behaviours which allowed for the extraction of clear goals for intervention.

Whereas a group of RLI subjects were not differentiated from a group of NL subjects on the basis of comparisons of selected parameters, individual profiles in this study provide some support for the suggestion that problems could persist in children presumed 'remediated'. Because certain subjects were found lacking in communicative strategies, efficacy of remediation criteria that had been employed for these subjects are brought into question and the use of more rigorous criteria proposed. If dismissal criteria truly had addressed functional use of language, which Warren and Kaiser (1986b) espouse to be a prerequisite for remediation, subjects from the present study might have been regarded as being in need of further intervention.

It was suggested in an earlier chapter, that the manner in which language-impairment is regarded could have an influence on the way in which remediation is viewed. For subjects in this study, it appears that decisions regarding assessment, intervention and particularly remediation might have been undertaken against a primarily linguistic orientation. If an extended view of language-impairment had been adopted, that is, one that incorporates the notion of communicative breakdown in various contexts, oversights may have been circumvented. Broader communicative problems might have been identified at the outset by means of measures more sensitive to accessing these aspects than were

standardized tests of linguistic dimensions. Strategies for dealing with obstacles in communicative situations would have been imparted and might have superseded singularly formalistic training of syntactic structures. Furthermore, judgements on status of remediation might have been more accurate if measures such as those used in the present study had been utilized as a basis of evaluation. The potential, evidenced in the present study, to describe communicative problems more fully by means of measures, other than standardized tests of form highlights the need for what Prutting termed a 'societal/clinical' appraisal (1983, p.251). This study has highlighted also, the value of criterion-referenced measures and profiles. The study reinforces the need for measurement batteries to include measures that allow for extended analyses as well as those that access social skills. In addition, the argument is supported for measures that allow for evaluation outside of the clinical context. It may be seen from the present study that it was possible to obtain an extended insight into communicative deficits by means of a type of measure not routinely used by speech-language pathologists. This reinforces the need to consider innovative and diverse measures in the quest to accurately determine the nature of potentially persisting communicative problems. Prutting and Kirchner's (1987) suggestion that the term pragmatic deficit cannot be defined by

the same set of variables for all subjects, also reinforces the need for varied as well as individualized measures.

The approach to pragmatics in this study was one whereby there was an attempt to reconcile complex theory with viable clinical application. To a large extent this was effected. Selection of parameters and modes of intervention was undertaken in a systematic manner. Rather than a static frequency count of limited ad hoc parameters, a dynamic form of assessment was implemented which incorporated speech act theory. This facilitated a detailed description of communicative behaviour.

Although all aspects that could be subsumed under pragmatics were not addressed in this study, a more extensive focus was provided in terms of amount of parameters than have been studied in any one study in this age group to date. The move beyond the investigation of one or two speech acts had bearing on the likelihood that a more accurate reflection of communicative abilities would be obtained.

Parameters investigated in this study included those related to a 'functional/utterance' level of communication as well as those related to 'conversational/discourse' level. While there was an

attempt to delineate parameters indicative of a more mature level of communication, cognizance was taken of the overlap between levels. In view of this overlap, it would seem that the focus in assessment of communicative competence should be broader, that is on the speaker in his/her role as both speaker and hearer. That is, his/her ability to function effectively in all speaking and listening contexts.

A far-reaching finding of the present study was that linguistic, pragmatic and social skill dimensions are interrelated. These significant findings give credence to the interactionist viewpoint. Duchan states that "...it is the intertwining that makes pragmatics different from other areas of language...". Fey (1986, p.21) suggests that "...acceptance of an interactionist position will have a significant influence on how clinicians view their role as interventionists". Interrelationships increase the likelihood that problems will be identified and offer alternative avenues for evaluating and treating particular problems.

Fey (1986, p.28) states "as a profession we must begin to test more carefully and thoroughly the real and durable effects that intervention has on our clients ability to communicate". The premise emanating from the present study is that decisions regarding remediation

might be made with more confidence if communicative function is evaluated along numerous dimensions in various contexts and bearing in mind the interrelationship among dimensions.

It is hoped that the present study has contributed to some extent to the question of what communicative competence may involve and what dismissal criteria may entail for language-impaired preschool children.

Simon (1985, p.22) proposes that children who are regarded as high-risk with respect to communicative ability should be targeted for early intervention. Wood (1981, p.5) suggests "...we must help children build a repertoire of strategies with which they can deal with the critical situations they will encounter".

6.4 SUGGESTIONS FOR FUTURE RESEARCH

From a consideration of the present study's findings, numerous indications emerge for the direction that future research might take.

Studies incorporating large sample sizes of both linguistically normal and presumably remediated language-impaired preschool children might confirm findings of the present study and would contribute information regarding communicative abilities in these

populations; thereby possibly also facilitating unanimous expectations pertaining to what communicative competence encompasses in the preschool population.

Longitudinal research involving language-impaired children who have been declared remediated would be valuable in terms of questions relating to predictive issues. Also, treatment studies involving the same measures as those used in the present study in pre- and post-test designs (Hegde, 1987, p.168) would be of interest. In addition, comparative studies of language-impaired children who had received primarily linguistic intervention versus those for whom pragmatic abilities had been the principal target of intervention would be useful.

It would be of interest to adopt measures utilized in the present study for investigations that address communicative abilities in other populations such as language-impaired preschool children as well as presumably remediated school-age children.

There is the potential to expand the number of parameters and subparameters investigated for future studies while incorporating the format used for data collection from the present study. For example, including parameters similar to some of the categories identified by Bishop and Adams (1989) would be

interesting, as would, for instance, the inclusion of 'classroom type' questions. It is also possible that a more fine-grained approach to analysis and the extraction of additional parameters for statistical analysis might highlight aspects that could have been overlooked in the present study.

Extending contexts of assessment would be valuable, such as for example investigating communicative functioning in triadic situations. It would also be useful to devise measures that incorporate categories described on the DESB for clinical use as well as measures based on categories put forward by researchers in the field of speech-language pathology (Bishop and Adams, 1989; Damico, 1988; Penn, 1983; and Prutting, 1983) for use by classroom teachers.

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APPENDICES

APPENDIX A: INSTRUCTIONS RE SAMPLING FOR LARSP

Instructions to Parent for initial parent-child interaction

Talk with your child in a natural manner as you would normally do in your home environment and interact with him/her naturally. Allow the child freedom to take the lead and to talk as much as possible.
You may feel the need to take the lead at times which is acceptable. You may ask questions about the toys being used and you are requested to also introduce topics related to events not in the immediate room so that your child is awarded the opportunity to use various language structures. Attempt not to ask the child only questions to which he/she already knows the answers; try not to ask questions that would only elicit a yes/no answer; dont ask too many questions and dont give too many commands.

APPENDIX A (continued)

Information and Consent Form

I am a speech therapist doing post-graduate research in the field of child language.
My study entails investigating aspects of communication in children who have good language as well as in children who have made excellant progress in language following an intervention programme.
I would appreciate being allowed to investigate certain aspects of your child's language and would at maximum require two hours of your and his/her time. Your child will experience the investigation as a form of play. Testing may be done in part at your nursery school and another part has to be done at the University of the Witwatersrand. The findings of the study will be written up in a thesis; however your child will remain anonymous. Results may provide valuable information for therapists in terms of possible further guidelines for therapy for children who do have language problems; thus you would be contributing to the field of research in communication disorders.
Should you desire to be informed about your child's performance, all findings will be communicated to you personally after completion of the investigation. In this way you would have access to information regarding various dimensions of your child's functioning, which may form one dimension of school readiness.
Thank you in anticipation.

Consent Form

I, _____, understand the conditions of Ms. Joffe's research and am willing to allow my child _____, to participate in the study.

Signed _____
Date _____

APPENDIX B: INSTRUCTIONS TO PARENT RE BISAP PROCEDURE

Instructions for second interaction incorporating parent child and tester

-Physically distance yourself slightly from the child.
-Assume a fairly passive role.
-Do not give any active suggestions to the child.
-For each task on the BISAP, allow the child a minute to respond to the tester's request, before making any response yourself.
-Do not be concerned that the child might not be able to do a particular task. The purpose of certain activities is to investigate how the child deals with a difficult situation. Furthermore the tester will not allow your child to experience any feelings of failure.

Instructions to child re sampling procedures

You and your mum may play with all these toys in this room. After you have played for a while, I'll take the toys back to the cupboard in another room, and then you and I are going to do some drawings while mum stays with us in the room; after that we will all have juice and biscuits and chat a bit more.

APPENDIX C: STRATEGY FOR ELICITING ADDITIONAL PRAGMATIC BEHAVIOURS FOR ADDENDUM TO BISAP

Tester offers child and mother some juice and biscuits. Questions and dialogue ensue in an attempt at structured elicitation of additional pragmatic behaviours.
The first parameter involves the child's ability to respond to requests for clarification on the part of the tester.
In the attempting to tap this, the following procedure is initiated:
The tester, while eating a biscuit herself, comments: "Mm, I love biscuits, but my favourite food is really cheese; what is yours?"
Regardless of the type of response that this evokes, the tester feigns that she has not heard the child's response and asks the following questions:
"Huh?" or "Pardon?"
Following the child's response to this, the tester makes a non specific request for clarification, that is, "What did you say?"
After the child has responded to this, the tester makes a final specific request for clarification, by referring to a portion of the original utterance, for example, "Your favourite food is what?"
A minute is allowed for each response. The tester attempts to counteract possible feelings of anxiety or frustration on the part of the child for this task, by trying to shift the responsibility for the "communication breakdown" onto the tester, for example, "X, I really wasn't listening properly, was I?, forgot to bring my listening ears with!"
Using the same activity, the tester then attempts to investigate the child's ability to request clarification.
This is attempted in the following manner:
In a barely audible voice, the tester says:
"I'm going to draw a piece of cheese and I want you to draw some 'skrits' - you know, the food you eat when the weather is hot, 'skrits'."
Within the same context, the tester then initiates a dialogue in an attempt to look at the child's ability to turn take.
An example of the dialogue is as follows:
"What do your teachers give you to eat at school?"
(Response).....
"What type of pet do you have?"
(Response).....
"What is his favourite food?"

APPENDIX C (continued)

The tester then attempts to sample response contingency and uses the previous speech context as a stimulus, for example, she asks the following:-
"Where does your pet sleep at night?"
The final task attempts to sample the child's ability to topic initiate and maintain the topic.
The tester plays in an interactive manner while moulding playdough and comments "I'm building a train:-
I went on a train once it was such fun!"

APPENDIX D: INSTRUCTIONS FOR RATERS

Instructions for rating for the BISAP

-This measure involves structured elicitation of various speech acts in a dyadic situation within an art context.
-Various activities and stimuli are used by the tester in an attempt to elicit these speech acts.
-A sabotage situation is involved in certain activities, for example witholding neccesary material for the completion of a set task.
-A sheet is provided which describes the activities and the corresponding parameters to be assessed.
-Rating is to be done on-line. However you may refer to the videorecording afterwards, in the event of any uncertainty.
-Within each parameter, there are a number of predetermined prerequisite behaviours for the accomplishment of the particular speech act, for example, appropriate eye contact, linguistic markers.
-You are requested to consider each activity independently and to focus on one pragmatic behaviour at a time.
-You are then requested to code observed behaviours in terms of presence or absence of necessary behaviours specified.

APPENDIX D (continued)

-The consideration of the act performed relates to the manner in which the child effectively affects the interlocutor; that is you are rating the child essentially in the role of speaker and hearer.
-The child is allowed a one-minute interval to complete the prerequisite behaviours. During and after this time, you are requested to observe, evaluate and rate his/her behaviour.
-Rating should be done in the following manner:

Tick "yes" for occurrence of specified behaviour.

Tick "no" if behaviour did not occur.

Tick "other" for alternative behaviour and specify.

-Note abbreviations: S=speaker, H=hearer,
I=interlocutor, A=act.

Instructions for rating for the BISAP Addendum

-An additional five parameters are included which are to be coded and rated in the same manner as for the BISAP.
-Some of these parameters give greater emphasis to the child in the role of hearer.
-The reiteration is that the child should be evaluated in terms of how effective he/she is as a communicator.

APPENDIX D (continued)

Strategy for elicitation of speech acts

-Tester asks child to do a drawing and provides no materials, but intimates that mother has equipment.
RATE IF CHILD USES REQUEST FOR OBJECT AND IF HE/SHE USES APPROPRIATE BODY ORIENTATION, EYE CONTACT, LOUDNESS, LINGUISTIC MARKERS BY TICKING "YES"/"NO"/"OTHER".

-Tester suggests to child to get mother to draw a picture.
RATE REQUEST FOR ACTION AND NECESSARY COMPONENTS.

-Tester asks child to tell her about his/her drawing.
RATE ASSERTION.

-Tester requests child to draw a complicated picture.
RATE DENIAL.

-Tester asks child what he/she first did upon entering the room.
RATE STATEMENT OF INFORMATION.

APPENDIX D (continued)

-Tester shows child two identical pictures; one a pencil sketch and the other an elaborate one done using paint, glitter, stars. Requests of child that he/she do the elaborate picture but does not provide the child with materials.
RATE REQUEST FOR INFORMATION.

-Tester asks mother to go to another room, ostensibly to complete a form. After a few minutes tester tells child to fetch mother and to tell her to return.
RATE CALLING AND RULE ORDER.
Context changes to eating situation

-Tester asks child what his/her favourite food is. Then regardless of response given requests clarification three times.
RATE CHILD'S ABILITY TO RESPOND TO REQUEST FOR CLARIFICATION.

-Tester says something inaudible and unintelligible to the child.
RATE CHILD'S ABILITY TO REQUEST CLARIFICATION.

-Tester initiates dialogue by way of statements and questions.
RATE CHILD'S TURNTAKING ABILITIES.

APPENDIX D (continued)

-Tester continues dialogue and uses statement and question that requires a response.
RATE CHILD'S ABILITY TO BE CONTINGENT.

-Tester plays in an interactive but nonverbal manner. Introduces novel toys unobstrusively.
RATE CHILD'S ABILITY TO INITIATE AND MAINTAIN TOPICS.

It is possible that occasionally activities may vary if contingencies are deemed appropriate with a particular child. However the sequence and behaviour to be rated will remain the same and in most instances the proposed procedure will be closely followed. In rating, note that certain behaviours are self explanatory while with others there may be a need to refer to the definitions an examples provided. If you feel that certain parameters should be more clearly defined or modified, I would welcome your suggestions. Thank you for acting as a rater.

APPENDIX E: SCORE SHEET FOR ADDENDUM TO THE BISAP

I. Response to clarification request

a. Eye contact used to indicate H's attention to request.
b. H attempts to meet needs of S and shows awareness that response is required.
c. Response occurs without inordinate delay.
d. Repetition of original utterance.
e. Revision of linguistic form.

II. Request for clarification

a. Eye contact is used to signal H.
b. A declaritive statement indicating that the S's utterance was not heard or understood.
c. A directive utterance specifying what the S has to do.
d. An interrogative form involving a wh question.
e. Intelligible reasonable request.

III. Ability to turn take

a. Response follows completion of interlocuter's previous utterance.
b. Appropriate pause time.
c. No overlap with interlocutors utterance.
d. Concise quantity of utterances.

IV. Response contingency

a. Response follows immediately on S's utterance.
b. Response structure fits syntactic requirement of previous utterance.
c. H responds with an elliptic form.
d. Semantic match between response and stimulus.
e. Previous referent has been scanned to provide a response that is on target.
f. Response provides expansion of previous utterance.

V. Topic initiation and topic maintenance

a. Spontaneous utterance without preceding stimulus.
b. Introduction of new topic at logical time.
c. Sufficient relevant information.
d. Consecutive utterances relate to and contribute to topic.
e. Sequential logical completion of topic.

APPENDIX F: LARSP PROFILES FOR 3 SUBJECTS

Name 55 Age Sample date Type

A	Unanalysed			Problematic		
	1 Unintelligible 18	2 Symbolic Noise 4	3 Deviant 1	1 Incomplete 1	2 Ambiguous	3 Stereotypes

B	Responses			Normal Response						Abnormal		
				Major								
				Elliptical			Reduced	Full	Minor	Structural	∅	Problems
	Stimulus Type	Totals	Repetitions	1	2	3+						
	30 Questions	30	1	13				3	3	3	8	
	20 Others	18		2				2	5	3	6	
C	Spontaneous	89	2	18	8	2	3	42	16			

D	Reactions		General	Structural	∅	Other	Problems

Stage I (0.9–1.6)

Minor *Responses* 8 *Vocatives* 5 *Other* 11 *Problems*

Major	Comm.	Ques.	Statement			
	'V' 4	'Q' 1	'V' 1	'N' 13	Other 4	Problems

Stage II (1.6–2.0)

Conn.	Clause				Phrase		Word
	VX	QX	SV 9	AX 3	DN 19	VV 3	-ing 6
			SO	VO 4	Adj N	V part 3	pl 13
			SC	VC 1	NN 1	Int X	
			Neg X	Other	PrN	Other 26	-ed 9
	X + S NP 2	X + V VP 4	X + C NP	X + O NP 5	X + A AP		

Stage III (2.0–2.6)

Conn.	Clause				Phrase		Word
	VXY	QXY 1	SVC 6	VCA	D Adj N 3	Cop 25	-en 1
	for X Y		SVO 5	VOA 1	Adj Adj N	Aux 7 10	3s 1
		VS(X) 3	SVA 3	VO,O,	Pr DN 4		gen
	do X Y		Neg X Y	Other	Pron 32 17	Other 7	
	X + S NP 4	X + V VP 18	X + C NP 4	X + O NP 4	X + A AP 1		

Stage IV (2.6–3.0)

Conn.	Clause				Phrase		Word
	+ S	QVS 14	SVOA 4	AAXY	NP Pr NP	Neg V 3	n't 4
		QX Y +	SVCA 1	Other 2	Pr D Adj N	Neg X 1	'cop 6
	VXY +	VS(X +) 1	SVO,O,		cX 2	2 Aux	'aux 4
		tag	SVOC 1		XcX 1	Other	

Stage V (3.0–3.6)

Conn.	Clause				Phrase		Word
10 and	Coord	Coord	Coord	1 1 + 1	Postmod. clause	1 1 +	-est
c	Other	Other 1	Subord A 3	1 1 +			-er
4			S C	O 1			-ly
Other			Comparative		Postmod. phrase	1 +	

Stage VI (3.6–4.6)

(+)					(−)					
NP	VP	Clause	Conn.	Clause	Phrase				Word	
				Element	NP		VP		N	V
Initiator 1	Complex	Passive	and	∅ 8	D 1	Pr 1 Pron	Aux Aux Cop		irreg	2
Coord 1		Complement	e	≡ 1	D∅ 2	Pr∅	2		reg	
		but what	b	Concord 1	D	Pr ≡	∅			
Other							Ambiguous			

Stage VII (4.6+)

Discourse		Syntactic Comprehension
A Connectivity	it	
Comment Clause	there	Style
Emphatic Order 1	Other	

Total No. Sentences	Mean No. Sentences Per Turn	Mean Sentence Length
137	2.7	4.2

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Name S1 Age Sample date Type

A	Unanalysed 1 Unintelligible 4 2 Symbolic Noise 7 3 Deviant	Problematic 1 Incomplete 7 2 Ambiguous 3 Stereotypes	

B	Responses				Repetitions	Normal Response: Major: Elliptical 1	2	3+	Reduced	Full	Minor	Abnormal: Structural	∅	Problems
	199 105 Stimulus Type			Totals										
119	50	Questions	105	46		13	3		1	14	12	3	1	
	69	Others		59	2	8	2		1	11	31	6	8	
C	Spontaneous			54	2	4	2			34	14			

D	Reactions	159 12	8	General	Structural	∅	Other	Problems
				44	19			

Stage I (0.9–1.6)

Minor *Responses* 17 *Vocatives* 38 *Other* 4 *Problems*

Major	Conn.	Quest.	Statement			
	'V'	'Q' 3	'V' 1	'N' 8	Other 5	Problems

	Conn.	Clause				Phrase		Word
Stage II (1.6–2.0)		VX 8	QX	SV 7	AX 5	DN 19	VV 8	-ing 9
				SO	VO 1	Adj N 6	V part 9	pl 9
				SC	VC	NN 1	Int X 1	
				Neg X	Other	PrN 2	Other 5	-ed 8
Stage III (2.0–2.6)		X + S:NP 3	X + V:VP 3	X + C:NP	X + O:NP 1	X + A:AP 1		-en
		VXY 1	QXY 1	SVC 6	VCA	D Adj N 3	Cop 18	3s 11
		let XY 5	VS(X)	SVO 7	VOA	Adj Adj N 1	Aux 8 8	
		do XY		SVA 17	VO_2O_1	Pr DN 19		gen 2
				Neg XY	Other	Pron 41 13	Other 1	
Stage IV (2.6–3.0)		XY + S:NP 11	XY + V:VP 24	XY + C:NP 7	XY + O:NP 10	XY + A:AP 23		n't 4
		+ S	QVS 4 QVS(+X)2 QXY +	SVOA 5	AAXY 4	NP Pr NP 2	Neg V 4	'cod 6
				SVCA 4	Other	Pr D Adj N 1	Neg X 2	
		VXY + 1	VS(X+)Y	SVO_2O_1		cX	2 Aux	'aux 4
			tag	SVOC 1		XcX	Other	
Stage V (3.0–3.6)	4 and	Coord.	Coord.	Coord. 11	1 +	Postmod. clause 11	1 +	-est
	2c	Other	Other	Subord. A 13	1 +			-er 1
	5s			S C	O 2	Postmod. phrase 1 + 1		-ly
	∠Other			Comparative 2				

Stage VI (3.6–4.6)

(+) NP	VP	Clause	Conn.	Clause	(−) Phrase: NP		VP		Word
				Element	D	Pr 1 Pron	Aux Aux Cop		N V
Initiator 2	Complex	Passive	and	∅	D∅	Pr∅1 01	8	01	irreg
Coord.	5	Complement 2	c	≡	D≡	Pr≡	∅		reg
		how what	c	Concord			Aux got to/ have to		
Other							Ambiguous		

Stage VII (4.6+)

Discourse		Syntactic Comprehension
A Connectivity 1	it	
Comment Clause	there 3	Style 6 just
Emphatic Order	Other	

Total No. Sentences 159	Mean No. Sentences Per Turn 1.3	Mean Sentence Length 3.5

Name N5 Age Sample date Type

A Unanalyzed — 1 Unintelligible 4 — 2 Symbolic Noise — 3 Deviant

Problematic — 1 Incomplete 3 — 2 Ambiguous — 3 Stereotypes 4

B Responses — 63

Stimulus Type		Totals	Repetitions	Normal Response: Major: Elliptical 1	Elliptical 2	Elliptical 3+	Reduced	Full	Minor	Abnormal: Structural	Abnormal: ∅	Problems
18	Questions	18		6	1			3	7	1	1	
45	Others	60 42		6	2		1	10	18	5	2	

C Spontaneous 114 — 16 | 9 | 2 | 5 | 74 | 8

D Reactions 174 / 18

General	Structural	∅	Other	Problems
46	10		3	

Stage I (0.9–1.6)

Minor *Responses* 24 *Vocatives* 5 *Other* 6 *Problems*

Major	*Comm.*	*Ques.*	*Statement*		
	'V 3	'Q 1	'V 3	'N	Other 6 Problems

Stage II (1.6–2.0)

Conn.	Clause				Phrase		Word	
	VX 2	QX 2	SV 12	AX 8	DN 54	VV 12	-ing 8	
			SO	VO 1	Adj N 5	V part 3	-pl 12	
			SC 4	VC 1	NN 1	Int X 1	-ed 12	
			Neg X	Other	PrN	Other		

X + S:NP 3 X + V:VP 7 X + C:NP 2 X – O:NP 2 X – A:AP 1

Stage III (2.0–2.6)

VXY	QXY	SVC 16	VCA	D Adj N 7	Cop 44	-er	
		SVO 7	VOA 3	Adj Adj N	Aux 16	3s 6	
Int XY	VS(A)	SVA 31	VO_1O_2	Pr DN 5	Aux 13		
do XY		Neg XY	Other 1 VAA	Pron 67 30	Other	gen 1	

XY + S:NP 24 XY + V:VP 25 XY + C:NP 16 XY + O:NP 8 XY + A:AP 22

Stage IV (2.6–3.0)

+ S	QVS 2	SVOA 7	AAXY 4	NP Pr NP 2	Neg V 13	n't 16
	QXY +	SVCA 3	Other	Pr D Adj N 2	Neg X 1	'cop 3
VXY +	VS(X+1)	SVO_1O_2 2		eX 2	? Aux	'aux 5
	VS	SVOC		XeX 2	Other 2	

Stage V (3.0–3.6)

S *and*	Coord.	Coord.	Coord. 13	I +	Postmod. clause 1 2	1 +	-est
1c	Other	Other	Subord. A 15	I +			-er
8e			S 01	0	Postmod. phrase 1 +		-ly
∠Other			Comparative 2				

(+) (–)

Stage VI (3.6–4.6)

NP	VP	Clause	Conn.	Clause	Phrase: NP			Phrase: VP			Word	
				Element	D	Pr	Pron'	Aux^M	Aux^D	Cop	N	V
Initiator 4	Complex	Passive /	*and*	∅ 4	D∅	Pr∅ 3	01	2	1		*irreg*	
Coord.	6/	Complement 3	c	= 1			1	∅		6	*reg*	
		how *what*	s	Concord 2	D =	Pr =						

Other — Ambiguous

Stage VII (4.6+)

Discourse	*Syntactic Comprehension*
A Connectivity / II	
Comment Clause *there*	*Style* 4
Emphatic Order Other	

Total No. Sentences 174	Mean No. Sentences Per Turn 2.8	Mean Sentence Length 4.6

APPENDIX G: DESB PROFILES FOR 3 SUBJECTS

DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE*

George Spivack, Ph.D. and Marshall Swift, Ph.D.
Devereux Foundation Institute for Research and Training

DESB PROFILE

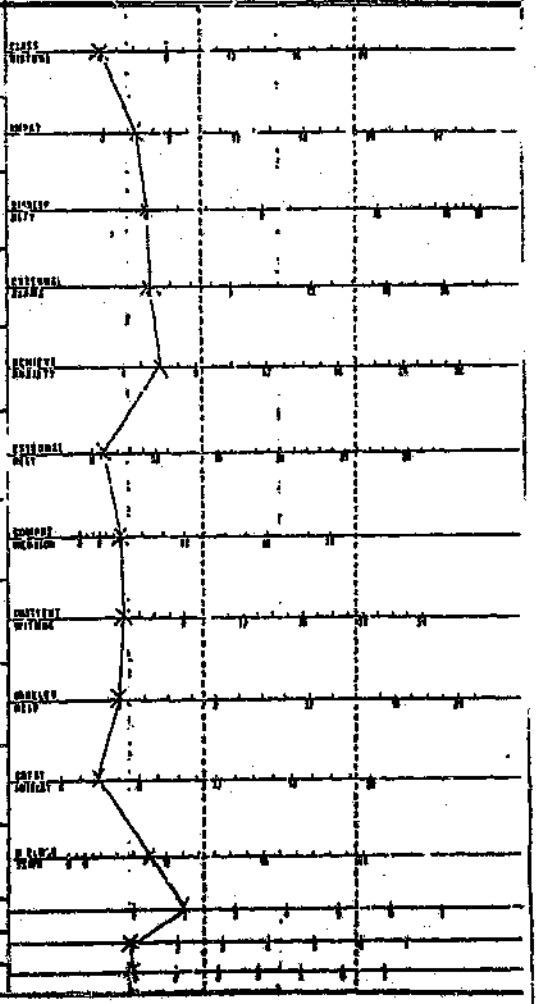
Student's Name SS Teacher's Name _____

Student's Sex F Age _____ Academic Subject _____

Grade _____ School _____ Date of Rating _____

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.
1. Classroom Disturbance	needs control 11 1 13 1 interfere touches 12 1 30 1 drawn in	4
2. Impatience	starts 1 2 44 1 go back sloppy 34 1 47 2 rushes	6
3. Disrespect-Defiance	disrespect 5 1 9 1 subject doesn't c'ch's. 7 1 16 1 rules	4
4. External Blame	c'ch's. help 2 1 31 1 blames called on 35 1 38 1 too hard	4
5. Achievement Anxiety	test scores 22 2 31 2 testing right answ. 23 1 33 1 sensitive	6
6. External Reliance	see others 24 2 42 1 swayed rely c'ch's. 27 1 directions 32 1 46 1 choices	6
7. Comprehension	understands 10 4 37 1 recites applies 35 4	9
8. Inattentive - Withdrawn	lose attn. 18 1 21 1 oblivious not attnd. 20 1 43 1 reachable	4
9. Irrelevant - Responsiveness	changes story 14 1 17 1 interrupt answers 15 1 26 1 irrel. talk	4
10. Creative Initiative	brings in 3 3 6 1 start disc. act, imag. 4 1 21 1 talk exper.	6
11. Need Closeness to Teacher	seeks c'ch's. 5 1 39 4 friendly helps 19 5 45 1 phys. close	11
Additional Items	27 Unable change	2
	40 Quits	1
	41 Slow Work	1

Raw Score in Standard Score Units



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DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE*

George Spivack, Ph.D. and Marshall Swift, Ph.D.
Devereux Foundation Institute for Research and Training

DESB PROFILE

Student's Name S1 Teacher's Name

Student's Sex M Age Academic Subject

Grade School Date of Rating

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.
1. Classroom Disturbance	needs control 11 5 13 5 interferes tenses 17 5 30 4 draws in	21
2. Impatience	starts 1 3 44 4 go back sloppy 36 3 47 5 rushes	17
3. Disrespect-Defiance	disrespect 5 4 9 3 subject defy t'ch'r. 7 3 16 5 rules	15
4. External Blame	t'ch'r. help 2 3 34 5 blames called on 25 3 38 4 too hard	15
5. Achievement Anxiety	test scores 22 3 31 5 scoring right answ. 23 3 33 4 sensitive	13
6. External Reliance	sure others 24 3 42 5 swayed rely t'ch'r. 29 5 directions 32 4 46 4 choices	21
7. Comprehension	understands 10 2 37 3 recites applies 35 3	8
8. Inattentive - Withdrawn	face srm. 18 4 28 5 obvious not attnd. 20 4 43 4 reachable	15
9. Irrelevant - Responsiveness	suppl. story 14 4 17 5 interrupt answers 13 5 26 3 irrev. talk	17
10. Creative Initiative	brings in 3 3 6 4 start disc. act. imag. 4 4 31 4 talk unpar.	15
11. Need Closeness to Teacher	seeks t'ch'r. 5 3 39 5 friendly helps 19 3 45 2 phys. close	13
Additional Items	27 Unable change	5
	40 Quits	7
	45 Slow Work	5

Raw Score in Standard Score Units

-1SD 0 +1SD +2SD

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DEVEREUX ELEMENTARY SCHOOL BEHAVIOR RATING SCALE*

George Spivack, Ph.D. and Marshall Swift, Ph.D.
Devereux Foundation Institute for Research and Training

DESB PROFILE

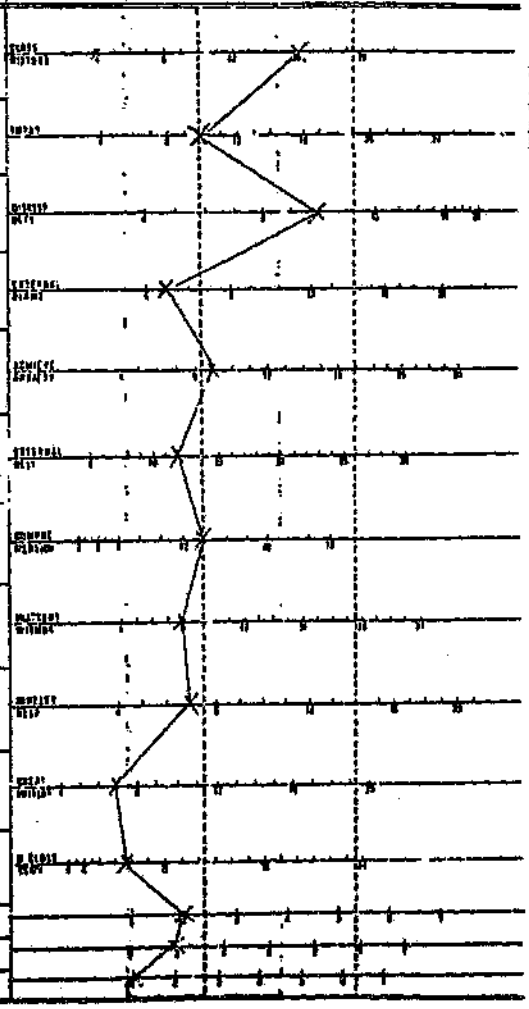
Student's Name N.S _____ Teacher's Name _____

Student's Sex F Age _____ Academic Subject _____

Grade _____ School _____ Date of Rating _____

Behavior Factor	Factor Item Raw Scores	Tot'l Raw Sc.
1. Classroom Disturbance	needs control 11 4 13 3 interfere teases 12 4 30 5 drawn in	16
2. Impatience	starts 1 3 44 3 go back sloppy 36 2 47 2 rushes	10
3. Disrespect-Defiance	disrespect 5 1 9 2 subject defy t'ch'r. 7 4 16 3 rules	10
4. External Blame	t'ch'r. help 2 1 32 2 blames called on 25 1 38 1 too hard	5
5. Achievement Anxiety	test scores 27 1 31 2 teasing right answ. 33 2 37 4 sensitive	9
6. External Reliance	see others 24 3 42 5 swayed rely t'ch'r. 29 3 directions 32 1 44 1 shaken	12
7. Comprehension	understands 10 4 27 4 cautious applies 35 5	13
8. Inattentive - Withdrawn	loses attn. 18 2 28 1 oblivious not attnd. 20 4 43 1 touchable	8
9. Irrelevant - Responsiveness	wrapp. story 14 1 17 4 interrupt answers 15 1 34 1 irrel. talk	7
10. Creative Initiative	brings in 3 3 6 1 start disc. act. imag. 4 1 21 2 talk appear.	7
11. Need Closeness to Teacher	seeks t'ch'r. 3 2 31 4 friendly helps 19 3 45 1 phys. close	10
Additional Items	37 Unable change	2
	40 Quits	2
	41 Slow Work	1

Raw Score in Standard Score Units



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Statistical Properties of the Combined Groups (n=10) on the LARSP

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Total No. of Sentences	121	226	148.5	155.9	33.62
Mean No. Sentences/Turn	1.1	2.8	1.8	1.87	0.65
% Spontaneity	29	74.1	52.45	50.75	16.96
% Elliptic Responses	24.8	46.2	32.7	33.51	8.48
% Major Responses	41.7	82.4	53.35	55.89	12.19
% '0' Responses	5	29	11.7	13.94	7.92
% Structural Abnormality	0	18.82	10.04	10.01	4.76

Statistical Properties of the Combined Groups (n=10) on the LARSP

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Total No. of Sentences	121	226	148.5	155.9	33.62
Mean No. Sentences/Turn	1.1	2.8	1.8	1.87	0.65
% Spontaneity	29	74.1	52.45	50.75	16.96
% Elliptic Responses	24.8	46.2	32.7	33.51	8.48
% Major Responses	41.7	82.4	53.35	55.89	12.19
% '0' Responses	5	29	11.7	13.94	7.92
% Structural Abnormality	0	18.82	10.04	10.01	4.76

Statistical Properties of the Combined Groups (n=10) on the BISAP/BISAP Addendum

Parameter	Minimum	Maximum	Median	Mean	Standard Deviation
Request for Object	2.00	5.00	5.00	4.20	1.14
Request for Action	2.00	5.00	5.00	4.40	1.27
Assertion	4.00	5.00	5.00	4.80	0.42
Denial	3.00	5.00	5.00	4.80	0.63
Statement of Information	4.00	5.00	5.00	4.80	0.42
Request for Information	2.00	5.00	5.00	4.40	1.27
Calling/Summons	4.00	5.00	5.00	4.70	0.48
Rule Order	4.00	5.00	5.00	4.90	0.32
Response to Clarif. Request	4.00	4.00	4.00	4.00	0.00
Request for Clarification	1.00	4.00	4.00	3.30	1.06
Ability to Turn Take	4.00	4.00	4.00	4.00	0.00
Response Contingency	4.00	5.00	5.00	4.80	0.42
Topic Maintenance	0.00	5.00	5.00	3.40	2.37
Total Score BISAP (40)	28.00	40.00	37.50	37.00	3.68
Total Score (Addendum)	14.00	23.00	21.00	20.20	2.94
Overall Total	42.00	63.00	58.00	57.20	6.02

Statistical Properties of the Combined Groups (n=10) on the DESB

Factor	Minimum	Maximum	Median	Mean	Standard Deviation
Class Disturbance	4.00	21.00	11.00	11.30	5.48
Impatience	5.00	17.00	9.00	10.10	4.30
Disrespect/Defiance	4.00	18.00	7.50	8.50	4.77
External Blame	4.00	20.00	6.50	8.60	5.38
Achievement Anxiety - Kinder	2.00	7.00	5.00	5.00	1.56
Achievement Anxiety - Total	6.00	13.00	8.50	8.90	2.51
External Reliance	6.00	21.00	13.00	13.20	4.32
Comprehension	8.00	14.00	11.00	11.30	1.95
Inattentive/Withdrawn	4.00	15.00	7.50	7.80	3.19
Irrelevant Responsiveness	4.00	17.00	8.00	8.80	4.57
Creative Initiative	6.00	18.00	12.00	11.40	3.84
Need Closeness	10.00	19.00	13.50	13.90	2.69
Unable to Change	1.00	5.00	2.00	2.70	1.34
Quits	1.00	7.00	2.00	2.90	2.08
Slow Work	1.00	700.00	2.00	2.90	2.23

Author: Joffe Beverly Sandra.

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