PROFILING LANGUAGE IN YOUNG URBAN ENGLISH ADDITIONAL LANGUAGE LEARNERS

ELSIE NAUDÉ

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FOR KOMMUNIKA

SANDRA DU PLESSIS
LYNETTE MEYER
ANNA-MARIE WIUM

It was always a team effort

Also Marietjie Couvaras Marina Lessing Lisel van Eeden Elsa Popich

Elsie Bezuidenhout Retha Kruger Louisa Nortier Rosina Phalakatshela

Est autem amicitia nihil aliud nisi omnium divinarum humanarumque rerum cum benevolentia et caritate consensio; qua quidem haud scio an excepta sapientia nil unquam melius homini sit a dis immortabilis datum.
Cicero

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SOLI DEO GLORIA

ABSTRACT

TITLE: Profiling language in young urban English Additional Language learners.

NAME: Elsie Naudé

PROMOTER: Professor Brenda Louw

DEPARTMENT: Communication Pathology, University of Pretoria**.**

DEGREE: D.Phil.

The development of language and communication skills in young children is directly related to future academic success. Young children who are at risk for language impairment should, therefore, be identified as early as possible so that their language development may be optimised. Multilingualism, which has become a universal phenomenon, may mask the presence of language impairment if the pre-school teacher or speech-language therapist is not proficient in the young multilingual learner's primary language. In some urban areas of South Africa, where many languages are represented in each pre-school classroom, it is likely that the teacher or therapist will lack proficiency in the primary language of quite a number of the pre-school learners. In these contexts, the language of mutual understanding is English and assessment of learners' language behaviour will also be conducted in English.

Against this background the aim of this study was to determine the feasibility of constructing a profile of typical English language behaviours for pre-school EAL learners in a circumscribed urban area. The profile is intended to provide speech-language therapists and pre-school teachers in collaborative practice with a dual-purpose tool: an instrument for identifying those learners who are at risk for language impairment/language learning disabilities, and a means of obtaining guidelines for the development of an appropriate programme for facilitating language development.

The literature study reviewed the language diversity in South African pre-schools, and the role of speech-language therapists in these multilingual pre-schools. The

aspects of language to be included in a profile of typical English language behaviours for young EAL learners were discussed.

A quantitative descriptive research design was selected. The language database for 30 EAL pre-schoolers from a circumscribed geographical area was collected during 20 minutes of conversation between each pre-school participant and a trained speech-language therapist who acted as research fieldworker. The language data was analysed to identify typical language behaviours relating to language form, language content and language use.

The results show that it was possible to construct a profile of typical English language behaviours for nine aspects of language form, one aspect of language content, and six aspects of language use. The information was used to construct two versions of a profile of typical English language behaviours, as well as a profile of risk indicators for language impairment in the specified group of EAL pre-schoolers. An action plan was designed to indicate the way in which these three profiles – the comprehensive profile, the essential classroom profile, and the profile of risk indicators – may be used by the collaborative team of speech-language therapist and pre-school teacher for language assessment, the identification of learners with language impairment, and the facilitation of language development for all EAL learners.

Key words: multilingualism, English Additional Language, pre-school language development, Specific Language Impairment, profile of language behaviours, language form, language content, language use, profile of risk indicators, difference versus disorder, collaborative practice.

OPSOMMING

TITEL: Profiling language in young urban English Additional Language learners.

NAAM: Elsie Naudé

PROMOTOR: Professor Brenda Louw

DEPARTEMENT: Kommunikasiepatologie, Universiteit van Pretoria**.**

GRAAD: D.Phil.

Die ontwikkeling van jong kinders se taal- en kommunikasievaardighede hou direk met hulle toekomstige akademiese welslae verband. Jong kinders met 'n risiko vir taalafwyking moet dus so vroeg as moontlik geïdentifiseer word, sodat hulle taalontwikkeling met die nodige ingrype optimaal kan geskied. Veeltaligheid, wat tans 'n wêreldwye verskynsel is, kan die teenwoordigheid van 'n taalafwyking verberg in gevalle waar die voorskoolse onderwyser of spraak-taalterapeut nie met die jong leerder se primêre taal vertroud is nie. In sommige stedelike gebiede in Suid-Afrika, waar daar in elke voorskoolse klaskamer 'n groot aantal tale verteenwoordig word, sal die onderwyser of terapeut waarskynlik onvertroud wees met heelparty van die voorskoolse leerders se primêre taal. In sulke omgewings is Engels die gemeenskaplike taal wat deur almal begryp word en sal die assessering van leerders se taalgedrag ook in Engels plaasvind.

Teen hierdie agtergrond was die doel van die studie om te bepaal hoe haalbaar dit is om 'n profiel van tipiese Engelse taalgedrag op te stel vir voorskoolse leerders van 'n omskrewe geografiese gebied, met Engels as Addisionele Taal (EAT). Die doel van so 'n profiel is tweeledig: dit kan 'n werktuig vir spraak-taalterapeute en voorskoolse onderwysers in kollaboratiewe praktyk wees om leerders te identifiseer wat 'n risiko loop vir taal-/taalleerafwykings, maar ook 'n middel om riglyne te bekom vir die ontwikkeling van 'n gepaste program om taalontwikkeling te fasiliteer.

Die literatuurstudie bied 'n oorsig oor die taalverskeidenheid in Suid-Afrikaanse voorskole, asook oor die rol van spraak-taalterapeute in hierdie veeltalige voorskole. Die aspekte van taal wat in 'n profiel van tipiese Engelse taalgedrag by jong EAT leerders ingesluit behoort te word, word bespreek.

'n Kwantitatiewe beskrywende navorsingsontwerp is gekies. Die taal-databasis vir 30 EAT voorskoolse leerders uit 'n omskrewe geografiese gebied is ingesamel tydens gesprekke tussen elke voorskoolse deelnemer en die navorsingsveldwerker, 'n opgeleide spraak-taalterapeut. Die gesprekke het telkens 20 minute geduur. Die taaldata is ontleed om tipiese taalgedrag met betrekking tot taalvorm, taalinhoud en taalgebruik te identifiseer.

Die resultate toon dat dit wel moontlik was om'n profiel van tipiese Engelse taalgedrag saam te stel vir nege aspekte van taalvorm, een aspek van taalinhoud, en ses aspekte van taalgebruik. Hierdie inligting is benut om 'n profiel van tipiese Engelse taalgedrag op te stel, asook om 'n risikoprofiel op te trek met aanwysers van taalafwyking in die bepaalde groep EAT voorskoolse leerders. 'n Aksieplan is ontwerp om aan te dui op watter wyse die drie profiele – die omvattende profiel, die kernprofiel vir klaskamergebruik en die profiel van risiko-aanwysers – deur die kollaboratiewe onderwyser – spraak-taalterapeut span benut kan word vir taalassessering, die identifikasie van leerders met 'n taalafwyking en die fasilitering van taalontwikkeling by alle EAT leerders.

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CHAPTER 1

INTRODUCTION AND PERSPECTIVE

AIM:
To introduce the problem addressed by this study, to provide the rationale for the research directed toward proposing a potential solution, to define key concepts and to outline the content and organisation of the study.

"Other time, I didn't say. But now, now I'm speaking. I'm very happy".
(EAL pre-schooler, 6 years old).

1.1   Orientation

A significant section of the scope of practice for speech-language therapists is devoted to families with young children, and their needs relating to language development and language disorders (Health Professions Council of South Africa [HPCSA] 2005a:9). Proponents of an ecological orientation advocate the inclusion of other individuals with whom the children interact regularly, such as pre-school teachers and day-care givers, in a truly family-centred approach to service delivery (Hammer, 1998:8).

In order to provide meaningful and accountable services to young children, their families and their day-care givers or pre-school teachers, therapists study normal language development and the way in which it provides a model for evaluation and intervention (Owens, 2001:xiii). They share this interest in language development with various other professions including linguists, developmental psychologists, and teachers. It is a vast field of study and one that has been constantly invigorated over many years by new insights from frequently shifting perspectives (Hoff, 2005:6).

The development of language is not an isolated process, but a component of the total process of change in which children are continually engaged while growing and developing (Herbert, 2003:100). It is equally true that language, once it has developed, plays an important part in the subsequent process of total development (Goorhuis & Schaerlaekens, 2000:17; Owens, 2001:67; Schick, De Villiers, De Villiers & Hoffmeister, 2002:7). The importance of language and communication skills for school readiness and future academic success is readily acknowledged by

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early childhood practitioners (Wentzel, 1991; Catts, 1993; Catts, Fey, Zhang & Tomblin, 2001; Lockwood, 1994; Rossetti, 2001; Nelson, 1998). Early communication skills are recognised as the only developmental domain relating directly to later academic success (Capute, Palmer & Shapiro, 1987:60). Inevitably, children with language impairment are at a serious disadvantage as far as language-based classroom activities, particularly reading and writing, are concerned (Catts, 1993:948). The prevention of later academic failure, therefore, involves strengthening language and communication ability.

The process of language development in a child is influenced by both intrinsic and extrinsic variables. One of the main extrinsic variables is the language input from the child's environment (Goorhuis & Schaerlaekens, 2000:66). Increasingly, children receive input from multiple languages during the early years of their language development. It is now recognised that multilingualism is becoming the rule rather than the exception in most countries worldwide (Brown & Attardo, 2005:88). Many young children acquire two languages simultaneously and, in addition, often have to acquire yet another language sequentially when they enter school or pre-school. These young learners generally exhibit some linguistic characteristics not found in first language learners (Owens, 2001:432). As they become more adept at using the additional language, their language profile will gradually come to resemble the profile of a first language speaker, although it will likely retain some distinguishing characteristics (Peirce & Ridge, 1997; Heugh, 2002b; Owino, 2002). Amongst these learners, however, there may be some who will not in time succeed in modifying their language structures in the direction of the standard profile. These include the learners who may have an inherent language impairment, since children with specific language impairment continue to experience difficulty in the acquisition of language at every developmental stage (Catts, 2001:38). The sooner these learners can be identified and the earlier intervention can commence, the better their chances will be of avoiding academic failure.

In South Africa, multilingualism in urban areas has substantially increased since greater freedom of movement became possible under the new constitution (De Klerk, 2000a:1). Since 1994, when South Africa established a new political dispensation that

brought sweeping changes to both the political and the educational systems (Kamwangamalu, 1997:243), parents also have the right to place their children in the educational institution of their choice, so that many schools are enrolling learners from increasingly diverse backgrounds (Department of Education, 2000:4, 6). Multilingualism in schools and pre-schools has created challenges both for the teachers (Du Plessis & Naudé, 2003) and the speech-language therapists who function as support personnel in the education context (Department of Education, 1997b:2).

Teachers and therapists need to be able to identify learners who are at risk for academic failure because of language impairment, so that preventative or ameliorative action may be taken (American Speech-Language-Hearing Association [ASHA], 1991; Catts *et al.*, 2001). However, they often find it difficult to assess the language behaviour of young multilingual learners. The informal contextual assessment recommended in the literature for linguistically and culturally diverse populations (Evans & Miller, 1999:101; Beverly & Goodnoh, 2004:1) is not a viable option when the therapist and/or teacher are not proficient in the home language of the learner. This is often the case in South Africa's multilingual urban settings where many languages are represented in each classroom (Du Plessis & Naudé, 2003:126), and English is the language of mutual understanding. The assessment of language behaviour in English additional language (EAL) pre-schoolers is further impeded by the fact that formal language tests that are appropriate for use with young multilingual children are not currently available for South Africa (South African Speech Language and Hearing Association [SASLHA] 2003). In their publication on *Working with bilingual populations in speech-language pathology,* the ethics and standards committee of SASLHA recommend the following:

> In the case of children, the performance of the clinical case on an assessment procedure, should ideally be compared to that of an age-matched normally developing bilingual child. This matched child should be from a similar background with respect to combination of languages spoken, as well as the amount and type of exposure to each language (for example, a child from the same class or the same family)
> (SASLHA, 2003).

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However, language data from multilingual pre-schools in a circumscribed urban area of the province of Gauteng in South Africa (Du Plessis & Naudé, 2003) indicate that the extent of the language diversity in these pre-schools would make it difficult to find a child matched in language background to a specific learner, as recommended by SASLHA (2003), or even preclude such a possibility in many cases. The second stipulation (SASLHA, 2003), namely that the child should be from the same class, might be the only possibility for matching children.

In order to compare the performance of these children, the speech-language therapist and teacher would require not only a comprehensive impression of the language and communication behaviour of the child who is to be assessed, but also sufficient and relevant information concerning the typical language and communication behaviours of the matched child.

In the following section, the need for research concerning typical language behaviours of young children in South African pre-schools is discussed against the background of multilingualism in South African pre-schools, the speech-language therapist's role in supporting both the teachers and the families involved in multilingual South African pre-schools, and the implication of English as language of mutual understanding in South Africa's multilingual urban pre-schools.

1.2   Rationale based on review of the literature

Early Childhood Development (ECD) programmes are designed to promote the development of the whole child, which includes the development of communication skills. It has long been recognised that best practice in early childhood development includes a specific focus on addressing the communication needs of children (see for example Gauthier & Madison, 1998:1). However, while all children need to develop language and other communication skills, the demands this process places on young children in the pre-school setting may vary considerably depending on the nature of the language input they receive (Goorhuis & Schaerlaekens, 2000:66).

In a multilingual setting, the language input is characterised by diversity. Research on language development in bi- and multilingual children has provided valuable insights

into both specific and universal characteristics found in the language and language-related behaviour of these young children (Leonard, 1992; Owens, 2001:426ff.; Hoff, 2005:338). The research reported in the literature has focused mostly on the reciprocal influence of European languages (notably English, Spanish, French, German and Dutch) and to a lesser extent on the influence of Asian languages on European languages, but relatively little research has been forthcoming on the influence of African languages in a multilingual language development context, although the specific characteristics of African American English have received considerable attention (for example Seymour & Seymour, 1981; Terrell & Terrell, 1993; Owens, 2001:416-423). There is limited information in the literature, therefore, to assist South African speech-language therapists and pre-school teachers in deciding on the relevant aspects to include in assessment of the language behaviours of multilingual pre-schoolers.

Research on language development in South Africa has, up to the present time, been a relatively neglected area. Linguists in South Africa generally tend to take less interest in language development in young children than in language in other contexts, notably language in education at secondary and tertiary level, as demonstrated by the papers delivered at the 2005 conference of the South African Applied Linguistics Association (SAALA) (proceedings forthcoming). The various issues relating to language in the education context have received considerable attention as a result of the changes in the South African socio-political arena (see for example Alexander, 1995; Bosman & Van der Merwe, 2000; De Klerk, 2002a & 2002b; Heugh, 2002a & 2002b, 2005; Kamwangamalu, 1999; Luckett, 1993), but language development in the pre-school has not been a particular focus. Consequently, speech-language therapists working in ECD have had to seek recourse to other means for obtaining locally relevant information on language development. South African research on *normal or typical language development* has, with a few exceptions (for example Vorster, 1983; Wolff, 2000), been conducted by speech-language therapists rather than linguists. Speech-language therapists require this information for their clinical practice, notably for distinguishing between typical and a-typical language development in young children.

Although multilingualism in schools, and the academic consequences of various language policies and practices, is a relevant and current topic for research, research concerning the influence of African languages on the language of multilingual speakers has been restricted mainly to adults (for example Van der Walt, 2001). Furthermore, researchers have concentrated on speech rather than language. This was demonstrated at the *Linguistics at the millennium in South Africa* Workshop on black South African English, presented by the Linguistics Society of Southern Africa in 2000 (see for example Smit & Wissing, 2000). The research that has been conducted on language in young multilingual children tends to originate from the collaboration between speech-language therapists and teachers in ECD programmes (for example Nxumalo, 1997; Du Plessis & Naudé, 2003) or the foundation phase of school (Pollecutt, 1997). In South Africa, the issue of multi-language input and its influence on language development in early childhood development programmes is particularly challenging for the speech-language therapist-teacher team working in urban pre-schools.

1.2.1. Multilingualism in South African pre-schools

In urban areas in South Africa, and notably in the province of Gauteng, many languages, of which the majority are African languages, are likely to be represented in a pre-school classroom, and the same classroom is also likely to have many learners from multilingual homes (Du Plessis & Naudé, 2003:126).

The children and families served in early childhood development programmes reflect the ethnic, cultural, and linguistic diversity of a nation (National Association for the Education of Young Children [NAEYC], 1996). The children in early childhood development programmes in a specific geographical area will therefore reflect both the diversity and the unique needs of that geographically defined community. In the case of South African urban areas the diversity is greater than in the non-urban areas, and specifically in the Gauteng province the urban populations represent the linguistic diversity of the country as a whole, as illustrated by the statistics presented in *Statistics South Africa*, 1998, and *Census in Brief*, 1998. The distribution of languages (in percentages) for the Gauteng province of South Africa is presented in Table 1.1**.**

Table 1.1.   **Distribution of first language in Gauteng**

Language	% speakers (rounded to integer values)
Zulu	22
Afrikaans	17
English	13
Sesotho	13
Sesotho sa Leboa (the Northern Sotho varieties)	10
Setswana	8
Xhosa	8
Xitsonga	5
IsiNdebele	2
Siswati	1
Tshivenda	1

Obtained from population census 1996, as reported in *Census in Brief*, 1998.

The eleven languages represented in Table 1.1 do not reflect the whole spectrum of language diversity that is to be found in all urban areas, as is evident in the language data for pre-schoolers in ECD in a specific Gauteng urban area (Sunnyside/Pretoria Central Business District [CBD]) which is presented in Table 1.2. The languages indicated refer to primary language of pre-school learners as recorded by teachers. A primary language is a language in which a child demonstrates native-like proficiency for both speaking and understanding, and is thus generally the child's first or home language (O'Connor, 2003:5; Advisory Panel on Language Policy, 2000:15). This data was obtained from the Kommunika project, a research project involving 32 multilingual classes in ECD centres in the Sunnyside/Pretoria CBD geographical area (Du Plessis & Naudé, 2003).

Table 1.2. Language data from 32 pre-school classes in the Sunnyside/Pretoria CBD geographical area

Languages (n= 14+) *Official spoken languages of South Africa*[1]	% speakers (n=489) (rounded to first decimal)
Afrikaans	40.5
Sesotho	15.5
English	14.7
Setswana	10.2
Xhosa	4.1
Sesotho sa Leboa (the Northern Sotho varieties)	3.9
Zulu	3.5
Tshivenda	0.8
IsiNdebele	0.4
Siswati	0.4
Xitsonga	0.4
Other languages	
African languages from other African countries (for example Swahili)	2.5
French	0.6
Portuguese	0.4
Other languages (non-African)	2.1

Adapted from Du Plessis & Naudé, 2003:126

It is clear from Table 1.2 that several other languages besides the eleven official languages of South Africa are represented in the language profile of these multilingual pre-schools. Although the percentage of speakers varies, each language appearing in the table represents the dilemma of a child in a multilingual learning environment. It also indicates the dilemma confronting the teachers who have to find ways of communicating equally effectively with all of the learners, and speech-language therapists who have to find ways of assessing the language behaviour of learners from such diverse language backgrounds.

Education in the home language/mother tongue for the first years is strongly advised both internationally and by national educational authorities (Heugh, 2002a and b; Morris, 2002). However, despite the comprehensive and convincing evidence from both local and international literature, which demonstrates the linguistic, academic and social advantages of mother tongue education and bilingual schools (De Klerk, 2002b), parents in South Africa may prefer, and many do prefer, placement of their children in English as Language of Learning and Teaching (LoLT) educational settings. Many reasons for this phenomenon may be postulated – some political, some personal, and some purely practical. Whatever the reasons may be, large numbers of

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[1] There were no instances of children with sign language as first language

pre-schoolers for whom English is an additional language (EAL) are placed in schools where English is the language of learning and teaching, despite the fact that they have had very little exposure to English (Pan South African Language Board [PANSALB], 2000). The consequence is often that these young learners do not have sufficient time to develop the English language skills they need for learning before they have to make the transition to primary school (National Association for the Education of Young Children [NAEYC], 1996: 7 - 8). A further consequence is that learners with innate language impairment may remain unidentified because of a lack of appropriate assessment instruments (Washington & Craig, 1999:75). Such learners then run the risk of later academic failure (Catts, 1997:86).

Educators face the challenge of how best to respond to the diverse developmental, cultural, linguistic, and educational needs of these learners and their families (National Association for the Education of Young Children [NAYEC], 1996:4). The new educational system in South Africa (Department of Education, 2001:26) envisages a support system for educators. Although "therapists" are grouped generically and no mention is made of the specific personnel who are to act as support system (Department of Education, 2001; Department of Education, 2002c), the provisional report of the National Commission on Special Needs in Education and Training included sections on "effective collaborative working relationships between educators and various support personnel" (Department of Education, 1997b:60) in which speech-language therapists are seen as key members (Department of Education, 1997b:90, 101). Although no specific mention is made in official documents of the Department of Education to the speech-language therapist's role in providing support to learners in the reception grade/pre-school, their parents, and their teachers, this responsibility is implicit in the general statements regarding support personnel (Department of Education, 1997b:60, 90, 101; 2001:26).

1.2.2. *The speech-language therapist's role in South African multilingual pre-schools*

The speech-language therapist's general supportive role is described in international literature as including the dissemination of information concerning risk factors,

collaborative consultation with educators to identify learners at risk and to incorporate developmentally appropriate language enhancement activities into classroom curricula, and professional staff development through workshops dealing with the key elements of language and literacy enhancement (Roth & Baden, 2001:164). Speech-language therapists, by implication, are considered to be adequately trained to perform these functions.

The training of South African speech-language therapists as reflected in the various topics included in training curricula (see for instance Naudé & Groenewald, 2004) also uniquely equips them to support teachers in carrying out the recommendations listed in the position statement of the NAEYC (National Association for the Education of Young Children, 1996) for working with children from diverse linguistic and cultural backgrounds. These recommendations include:

1.   Maintaining and developing the language and culture of the child's home
2.   Adopting an asset-based approach (National Association for the Education of Young Children, 1996:4)
3.   Providing an appropriate learning environment to facilitate the development of the higher level language skills required for understanding and expressing academic content through reading and writing (National Association for the Education of Young Children, 1996:8).

These multi-level support functions of speech-language therapists in the educational setting are depicted schematically in Table 1.3 and Figure 1.1.

Table 1.3.   Support functions of speech-language therapists in school settings

General supportive role (Roth & Baden, 2001:164)	Working with children from diverse linguistic and cultural backgrounds (NAEYC, 1996:8)
1. Dissemination of information concerning risk factors 2. Collaborative consultation with educators to identify learners at risk 3. Collaborative consultation with educators to incorporate developmentally appropriate language enhancement activities into classroom curricula 4. Professional staff development through workshops dealing with the key elements of language and literacy enhancement	1. Maintaining and developing the language and culture of the child's home 2. Adopting an asset-based approach. 3. Providing an appropriate learning environment to facilitate the development of the higher level language skills required for understanding and expressing academic content through reading and writing

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Asset-based approach
Maintaining and developing the language and
culture of the child's home

Classroom based
Collaborative consultation with educators:

*Identify strengths (assets).

*Identify learners at risk.

*Incorporate developmentally appropriate
language enhancement activities into classroom curricula.

*Provide appropriate learning environment
to facilitate development of higher level skills
required for academic reading and writing.

School based
Professional staff development workshops:
➜Key elements of language and literacy enhancement.

School and community based
←Disseminate information concerning risk factors→

Figure 1.1   Schematic representation: Support functions of speech-language therapists in multilingual pre-schools (based on Table 1.3 - Roth & Baden, 2001:164; NAEYC, 1996:8)

The functions of *information dissemination*, *staff development* and *collaborative consultation to determine the strengths and risk factors* relating to individuals and groups of learners (Figure 1.1), all require of the speech-language therapist to uphold the general principles of collaboration, to develop effective skills and techniques, and to possess basic knowledge concerning both the processes involved and content to be communicated.   In addition to knowledge of universal principles of language development, the speech-language therapist needs to obtain some knowledge concerning the languages featuring in the particular young child's daily life. This view is endorsed by SASLHA (2003). In most multilingual pre-schools in urban Gauteng, English is a language that features strongly as language of mutual understanding (Du Plessis & Naudé, 2003).

Speech-language therapists working in multilingual and/or multicultural settings all over the world face the challenge of finding suitable ways of assessing the language

behaviour of young children (Conti-Ramsden & Crutchley, 1997; Washington & Craig, 1999; Craig, Connor & Washington, 2003). Very often, the therapist is not proficient in the primary language of the young client. This is also the case in South Africa, where the majority of practising therapists are currently English or Afrikaans speaking and may have only one of the other official languages of South Africa in their language repertoire (Uys & Hugo, 1997:23). Furthermore, in a setting where there may be up to 12 languages represented in a pre-school (Du Plessis & Naudé, 2003), it is quite likely that the therapist will not have access to the primary language of a number of the pre-school learners.

Current practices in the assessment of language behaviour in EAL learners by speech-language therapist-teacher teams have been influenced especially by three convictions.

Firstly, it is considered the ideal that both languages of a bilingual client should be assessed (SASLHA, 2003). However, this may not be possible in all cases, and certainly often is not viable in multilingual pre-school contexts. If a number of different languages are represented in the pre-school, if teachers or therapists are not proficient in all of these languages, and if there is a lack of trained interpreters for the pre-school setting, it is improbable that effective assessment in both/all languages of a multilingual pre-schooler will take place

Secondly, there is no justification for accepting that developmental norms for the various dimensions and aspects of language can be transferred from one population to another. An awareness of this non-transferability has led to the concern of test developers that their norming population should include all possible sub-populations who may be assessed using the particular instrument (see for example Mantzikopoulos, 1997; Restrepo & Silverman, 2001). However, assessment instruments are very seldom normed from the outset for more than one country. South African speech-language therapists have long been aware that it is inappropriate to use British or American English language assessment instruments to evaluate the English language behaviours of children in South Africa (Pakendorf, 1998:2). SASLHA emphasises the current dearth of relevant bilingual tests for the paediatric population in South Africa (SASLHA, 2003).

Thirdly, during assessment language should neither be fragmented, nor should these fragments be viewed in isolation (Damico, 1988, 1991a, 1991b, 1993). The methodology traditionally used in language assessment was one in which language was not viewed as holistic but treated as an autonomous cognitive ability divided into many components, and separated from environmental variables and contexts. Damico (1991b) is a strong proponent of the view that assessment tasks suitable for use in dynamic assessment, such as narration and conversation, are considered to be more appropriate than a series of language tests for assessing language behaviour in linguistically diverse children. Contextualised approaches such as the use of language sampling have therefore become the method of choice for many speech-language therapists (Evans & Miller, 1999:101; Beverly & Goodnoh, 2004:1). However, some form of normative information is still required to distinguish between children with typical development and children at risk (Hargett, 1998). Research has shown that a protocol could be derived empirically for a small sample of children from a circumscribed English language population, and this approach has been utilised successfully by clinicians (Schraeder, Quinn, Stockman, & Miller, 1999: 196). The main concern underlying these efforts has been the identification of those young children who need intervention because of language impairment.

The identification of pre-schoolers at risk for language learning disorders needs to be a joint effort between teachers and speech-language therapists (Roth & Baden, 2001). In the South African setting in particular, collaborative practice is essential (Du Plessis, Hugo & Soer, 2000), due to the fact that the limited number of speech-language practitioners cannot service the entire population even in urban areas (see for example Pickering, McAllister, Hagler, Whitehill, Penn, Robertson, & McCready, 1998). Furthermore, the educational context with its crowded classrooms and extreme multilingualism renders teacher support for facilitating the development of language skills in a group setting a necessity. The collaborative approach is widely adopted in settings where it has been proven to be an effective strategy for coping with the kinds of challenges also found in the South African context (Apel, 2001; Catts *et al.*, 2001; Hadley, Simmerman, Long & Luna, 2000; Hugo, Du Plessis & Soer, 2000). The specific expertise in language assessment and intervention that a speech-language

therapist can bring to the collaborative process may contribute to the development of both first language and LoLT in pre-school learners.

1.2.3. English as language of mutual understanding in the multilingual pre-school

Although mother tongue education is advocated by the language policy of the Department of Education (Department of Education, 1997a), it is becoming increasingly obvious that this is not a practicable option in schools and pre-schools where both teachers and learners come from a variety of multilingual backgrounds (Du Plessis & Naudé, 2003). In these schools, English is accepted as the language of mutual understanding between teachers, parents, learners, and support personnel (Department of Education, 2005).

The crucial importance of communication skills for school readiness and future academic success, which has been discussed by various local and international authors (Wentzel, 1991; Catts, 1993; Catts *et al*., 2001; Lockwood, 1994; Rossetti, 2001; Nelson, 1998), takes on an additional dimension in multilingual settings where English is the language of mutual understanding. In schools and pre-schools with English as LoLT, children need to manifest the verbal communication behaviour that is regarded as a highly sensitive indicator of potential for academic progress in English, and not in their home or primary language.

Although all EAL learners who have their initial contact with English as language of learning and teaching in the pre-school will demonstrate some difficulties at first, those with a specific language impairment (influencing the first language/s as well as English) may continue to lag behind even after a period of two to three years of exposure to English (National Association for the Education of Young Children [NAEYC], 1996: 7 - 8). By this time, the child will have lost or been unable to profit from a great deal of input/information presented in the learning context, and will have fallen behind in developing Cognitive Academic Language Proficiency (CALP). The influence on the young learner's potential for academic success is compounded by emotional factors relating to failure in both interpersonal relationships in the school context and progress in learning tasks (Catts, 1997:86; Diedricks, 1997:31-43;

Strattman & Hodson, 2005:165).   Learners who have a language learning disorder, therefore, may eventually develop psychological disorders as well (Margalit, 1991; Margalit, Mioduser, Al-Yagon & Neuberger, 1997). These children, their parents, and the community cannot afford to wait for three to four years to establish the presence of a disorder with such far-reaching consequences, which could have been prevented or controlled had timely measures been instigated (Catts *et al*., 2001:39).

It seems critical, therefore, to obtain some measure with which to determine whether a pre-schooler's communication skills are in accordance with those of his peers or differ in such a way as to indicate a risk for future academic difficulties.   Such early identification then needs to be followed up by "broad-based language intervention programs that target literacy as well as oral language impairments" (Catts *et al*., 2001: 38).   Speech-language therapists have the skills and knowledge required to support teachers and learners in the multilingual pre-school in this regard, but a culturally and linguistically relevant tool for early identification of multilingual learners at risk for language learning disorders is essential if the assessment is to be appropriate (Craig & Washington, 2000; Van der Walt, 2001).

1.3   Statement of problem and proposed solution

The importance of early identification of children who are at risk for language impairment has been a recurrent theme in this chapter. However, it is not a simple task to distinguish between typical language behaviours and language behaviours that could be indicative of language impairment in linguistically diverse children (Craig & Washington, 2000:366).

The current situation in multilingual pre-schools in the urban area of Pretoria, in the province of Gauteng in South Africa, appears to be the following:

Mother tongue education is often replaced by the use of English as language of mutual understanding, and since English is in many cases the only language of mutual understanding between speech-language therapists, their teacher colleagues, their pre-school clients, and parents, the assessment of language behaviours can only be conducted in English for these young learners.

In order to make any judgement relating to impairment, the speech-language therapist-teacher team requires a profile of typical EAL language behaviours with which to compare an individual learner's performance. The construction of an English language profile for pre-school EAL learners will provide speech-language therapists and pre-school teachers in collaborative practice with a means of distinguishing between typical and disordered language, and therefore also with a means of identifying those learners who are at risk for language impairment and subsequent language learning disorders. The profile will also provide guidelines for the development of an appropriate intervention programme to provide a more solid foundation for the acquisition of language-based literacy and learning skills (National Association for the Education of Young Children, 1996:8).

Figure 1.2 is a schematic summary of the problem statement and rationale.
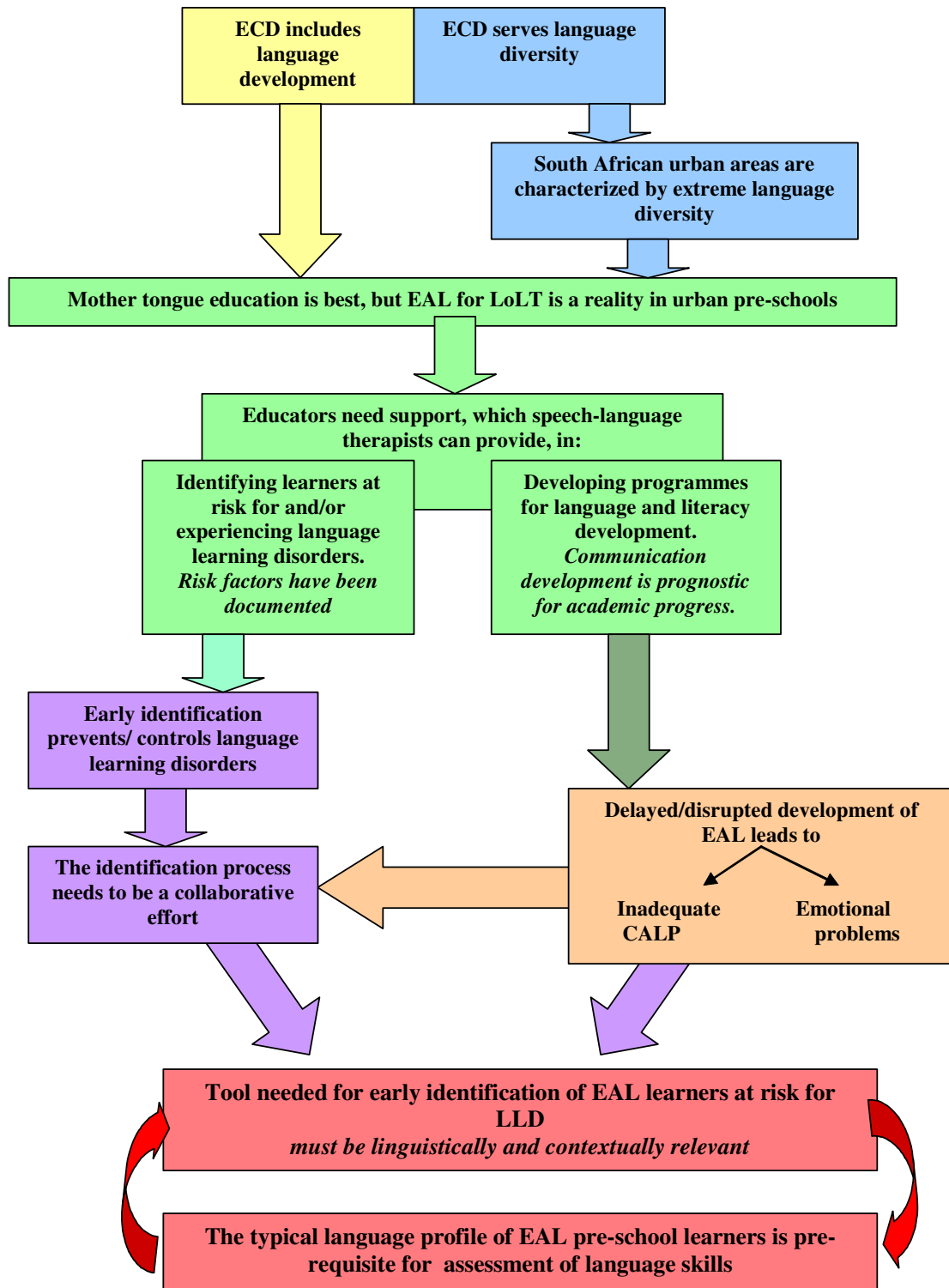
Figure 1.2.   Summary of statement of problem and rationale

1.4   Research question

The statement of the problem and rationale lead to the formulation of the following research question:

Can a typical language profile be identified for a small group of EAL pre-school learners in a circumscribed urban area, from which a set of boundaries may be construed for the profile of EAL pre-school learners with potential language learning disorders?

The present study proposes to answer this question.

1.5   Research approach

The active role of speech-language therapists in the early identification of language impairment and secondary prevention of possible language learning disabilities, including reading disabilities (Catts *et al*., 2001), places the focus of the study on the pre-school learner. The proposed research activity is therefore to describe, to make judgements about and to interpret language data from pre-schoolers and to deliver usable outcomes for the collaborative practice between clinician and educational practitioner.   The research will be conducted from a clinical and constructivist perspective. Although a quantitative paradigm was selected, the data collection will not take place in a laboratory setting but through the process of typical interaction with participants in their natural setting. The research also moves into the domain of applied linguistics, which has been described recently as a broad range of activities which include solving language-related problems, a " means to help solve specific problems in society" (Tucker, 2005). The researcher will strive to propose an "imaginative solution" to a real language problem (Weideman, 1999:94). The profile of EAL to be constructed will specifically be aimed at distinguishing between difference and disorder.

1.6   Organisation of study

Table 1.4 provides an outline and brief description of the manner in which the research question is addressed.

Table 1.4.   Organisation of study

Chapter	Brief description
One Introduction and perspective	The first chapter provides the background, the rationale for the research directed toward proposing a potential solution, the research question, definitions of key concepts and an outline of the chapter contents.
Two Language diversity in the multilingual South African pre-school context	This chapter provides a discussion of the extent of multilingualism in South African pre-schools, specifically those in the urban areas of the province of Gauteng, and highlights the problems associated with the concepts of mother tongue education and assessment in the primary language of the multilingual pre-schooler.
Three The role of speech-language therapists in multilingual pre-schools	This chapter provides an overview of the role and activities of speech-language therapists within the perspective of the pre-school setting in South Africa, and indicates the need for an instrument for language assessment as a resource for the teacher-therapist team.
Four A language profile for young EAL learners, to be used in collaborative practice	This chapter provides a detailed discussion of aspects of language to be included in a language profile for young learners with English as additional language (EAL) from three sources: universal characteristics of language development, language characteristics of SLI, and relevant language characteristics of EAL discussed in the South African literature.
Five Research design and method	This chapter provides details of the research design, selection of participants, collection and processing of data, and measures taken to ensure that the research results would be dependable.
Six Results and discussion: language form	This chapter, the first of the chapters devoted to the results of the research, provides a discussion of the aspects of language form that appeared in the language production of the three age groups, and evaluates the potential utility of this information by considering the results to be carried over to the *Profile*.
Seven Results and discussion: language content	This chapter provides a discussion of the aspects of language *content* that appeared *typically* in the language production of the three age groups, and evaluates the potential utility of this information by considering the results to be carried over to the *Profile*.
Eight Results and discussion: language use	This chapter provides a discussion of the aspects of language *use* (relating to intent or functions of communication, rules of conversation and narratives, and adapting to conversation partners or contexts) that appeared in the language production of the three age groups and evaluates the potential utility of this information by considering the results to be carried over to the *Profile*.
Nine Two versions of a language profile for EAL pre-school learners	This chapter provides the outcome of the analyses of language form, language content and language use elicited and observed in the interaction between the research fieldworker and the pre-school participants in the form of two products: a comprehensive language profile for the circumscribed group of EAL pre-schoolers, and a compact version of the language profile containing the most relevant information concerning typical language behaviours demonstrated by the EAL pre-schoolers.

Chapter	Brief description
Ten The profile of risk indicators	This chapter provides a discussion of the feasibility of constructing a *profile of risk indicators (PRI),* based on the aspects of language form, language content and language use identified as being typical of the three age groups of pre-school participants, as well as certain risk indicators listed in the literature.
Eleven Conclusion	This chapter presents the conclusions of the researcher regarding the contribution and the limitations of the study, with implications for clinical practice and for future research.
Appendices	Appendix A Kommunika project Appendix B Letters of informed consent to parents of participants Appendix C Ethics form & letter from Research and Ethics Committee, Faculty of Humanities, University of Pretoria Appendix D Transcriptions Appendix E Method to determine inter- and intra-researcher agreement Appendix F Glossary of terms

1.7   Definition of terms

The following terms are defined according to their specific use in the study.

Early childhood development - ECD: Since 1994, Early Childhood Development in the South African context describes the phase from birth up to and including the first year of compulsory general education (Evans, 1996). This is in keeping with the international policy of Unicef for developing countries (Unicef, 2000).

English as additional language – EAL: In the multilingual South African context, the term "mother tongue" or "first language" is deemed inapplicable, because many children grow up in settings where no mother is present or where multiple languages are present (Sadiki, 2002), and therefore the term "second language" is not appropriate. For this reason the phrase *English as additional language (EAL)* is preferred to *English second language (ESL).* The term "English Additional Language" (EAL) is used in education settings to describe the language status of the learners relative to the language of mutual understanding or language of learning and teaching (LoLT).

Language: From the various definitions of language found in literature (for example Halliday, 1978; Bloom, 1988; Owens, 2001), it is obvious that there are many different perspectives from which language can be viewed. Nelson (1998:25) observes that language is "slippery to define", despite the fact that most adult speakers appear to

have an intrinsic knowledge of what language is. Although linguists seem to agree that language consists of different subsystems, various divisions have been suggested, for example form, content and use (Bloom & Lahey, 1978); or morphosyntax, lexicon and pragmatics (Rollins, 1994:373); or phonologic, morphologic, syntactic, semantic, and pragmatic parameters (Committee on Language, American Speech-Language-Hearing Association 1983:44). Upon closer scrutiny, it appears that the classification by Bloom and Lahey (1978) could subsume the other classifications, as depicted in Figure 1.3. The all-encompassing dimension of language is *language use,* since both form and content only become relevant when language is used to some purpose.
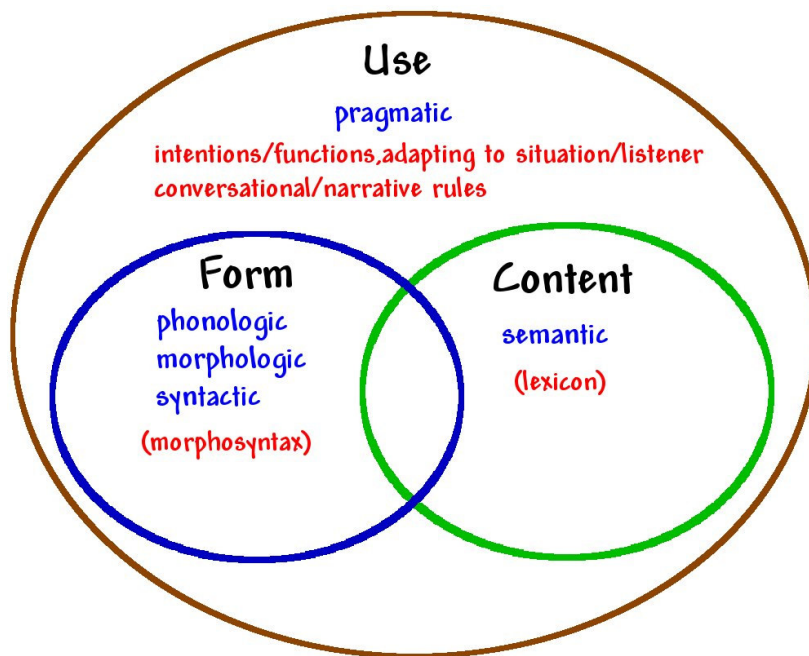
Figure 1.3 Dimensions and aspects of language.

Adapted from Bloom & Lahey (1978), Rollins (1994), Committee on Language, American Speech-Language-Hearing Association (1983), and ASHA, 1990)

Language dimensions and aspects of dimensions: For the purpose of this study, the term *language dimensions* will refer to language form, language content, and language use. The various components of these dimensions or subsystems will be termed *aspects.* The subsystems of language may be described separately, but they never

function separately. They are as closely intertwined as the strands in a braid, forming one functional whole. In children with language disorders the braid may be unravelled, and it is this "coming undone" that often differentiates the language of children with language impairments from the language of children with intact language (Rollins, 1994:373).

A glossary of terms relating to language form, language content and language use is provided in Appendix F.

Language learning disorder: "Learning disability is a general term that refers to a heterogeneous group of disorders manifested by significant difficulties in the acquisition and use of listening, speaking, reading, writing, reasoning, or mathematical abilities. Although learning disabilities may occur concomitantly with other handicapping conditions … or with extrinsic influences … they are not the result of those conditions or influences" (National Joint Committee on Learning Disabilities, 1991: 18). Included in the definition is a list of characteristics but, as Owens (1999) points out, most children will not have all of these characteristics. More than 75 percent of children who exhibit learning disorders, however, have difficulty learning and using symbols and these children are considered to have a *language learning disorder* (Owens, 1999: 29).

Main language and primary language: In multilingual populations, including pre-school populations, it is often difficult to establish which language is to be regarded as the mother tongue or first language (Sadiki, 2002).   The term *main language* will therefore be used to refer to the language group indicated by the family name (last name). The term *primary language* will be used to refer to language in which a child demonstrates native-like proficiency for both speaking and understanding, and is thus generally the child's first or home language (O'Connor, 2003:5 The Advisory Panel on Language Policy, 2000:15).

Mother tongue: In cases in this study where "mother tongue" or "first language" is used, it is to be equated with *the language used most proficiently at home* (Heugh, 2002a).

Prevention: There are three categories of prevention: Primary prevention leads to the elimination or inhibition of the onset and development of an impairment. Secondary prevention results in early identification and treatment and can therefore limit the progressive development of an impairment. Tertiary prevention programmes aim at limiting the extent of an impairment by encouraging effective functioning (ASHA, 1991).

Specific language impairment: The term is usually employed to refer to children who exhibit significant language difficulties, including delays in the development of semantic, syntactic, phonological, and pragmatic abilities, that cannot be attributed to deficits in peripheral sensory and motor functions or cognitive development (Nelson, 1998: 97).

Support system/person/services: "*'Education Support Services'* include all human and other resources that provide support to individual learners and to all aspects of the system. Whilst these services attempt to minimise and remove barriers to learning and development, they also focus on the *prevention* of these barriers and on the development of a supportive learning environment for all learners" (Department of Education, Report of NCSNET/NCESS, 1997:2).

1.8   Conclusion

In South Africa, there is an increasing trend to place young children from diverse language backgrounds in schools where English is not only the language of learning and teaching, but also the language of mutual understanding between learners, teachers, and support service providers such as speech-language therapists.

The multilingual context of South African urban pre-schools has created a unique need for a collaborative effort between teachers and speech-language therapists to find a way of distinguishing between those learners who present with a typical EAL profile, and those whose language profiles indicate a risk for inherent language impairment. Early identification of these learners is essential in order to prevent the development of language learning disorder. At present, although language is recognised by education authorities as the most vital tool for both academic and social development, there is a

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dearth of relevant local research concerning typical language behaviour in young multilingual pre-schoolers when they speak English..

The aim of this study is therefore to provide a set of empirical data in order to determine the feasibility of constructing a profile of typical English language behaviour for a specific group of young multilingual urban pre-schoolers in a South African context.

1.9   Summary

This introductory chapter showed how multilingualism in South African pre-schools, and the increasing preference of English as language of mutual understanding, leads to an urgent need for research concerning typical English language behaviour in EAL pre-schoolers in any particular context. It was argued that this information is needed by speech-language therapists and teachers who have to identify learners at risk for language impairment and subsequent language learning disorder. A research question was formulated, the answer to which proposes to address the stated problem. The chapter also provided an outline of the chapters to follow and a definition of terms used in these chapters.

CHAPTER 2

LANGUAGE DIVERSITY IN THE MULTILINGUAL SOUTH AFRICAN PRE-SCHOOL CONTEXT

AIM: To indicate the extent of multilingualism in South African pre-schools, specifically those in the urban areas of the province of Gauteng, and to problematise the concepts of mother tongue education and assessment in the primary language of the multilingual pre-schooler when language behaviour is the target of the assessment.

2.1   Introduction

Within the framework of the National Constitution of South Africa and the Bill of Human Rights (as cited by Thorpe, 2002), language has always been a major consideration and a subject of serious debate. Language is certainly very much a central issue in legislation and policy relating to education (Ngubane, 2002).

Two important issues appear recurrently in research reports and discussions about multilingualism and education in the South African context: the importance of the language of learning and teaching (LoLT), especially in the pre-school and foundation phase (see for example Morris, 2002), and the emergence of English as the language of choice for many settings despite the official language policy which supports the development of all the languages of South Africa (Peirce & Ridge, 1997; De Klerk, 2002a & b). These two aspects are closely related, and both impact significantly on the personal, social and academic development of pre-school children.

The aim of this chapter is to investigate the implications of multilingualism and English as language of learning and teaching in urban pre-schools where teachers and speech-language therapists strive to identify those young EAL learners who present with innate language impairments as well as the effects of sequential bi/multilingualism.

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2.2   Language in pre-school education

Young children up to the age of four are actively engaged in acquiring or learning language (Owens, 2001:90-102; Nelson, 1998: 82-83; Dore, 1986; Peters, 1983: 5). From this age onward, particularly in the educational setting, it becomes ever more obvious that they not only have to learn language but also are applying themselves to learning through language. When entering school implies entering into a new language environment, as it does for many young children in South African urban areas (cf. Jordaan, 1993:11; Du Plessis & Naudé, 2003), the child's task load is manifestly increased (National Association for the Education of Young Children [NAEYC], 1996: 5).

2.2.1. *Multilingualism as a global phenomenon in schools*

In many countries all over the world, multilingualism in schools has become the accepted state of affairs. The situation in the USA, for example, where Latin, Asian and African languages exercise a significant influence on American English, is discussed extensively in texts concerning language development (for example Owens, 2001: 408 – 454; Nelson, 1998: 31-33; Jacobs & Coufal, 2001: 67). Bi- and multilingual learners are reported to form a growing proportion of schools in the United Kingdom (Crutchley, 1999: 201; Crutchley, Botting & Conti-Ramsden, 1997: 268). In Europe, too, the influx of immigrants and the general movement across borders bring about a high percentage of non-mother-tongue-speakers in classrooms (Goorhuis & Schaerlaekens, 2000: 89; Huizenga-Storm, 2001). In these countries, however, there is most often one official language and therefore one main language of learning and teaching (LoLT). In the USA, for example, a report from the Committee for Developing a Research Agenda on the Education of Limited-English-Proficient and Bilingual Students stated as contextual parameter for their report the assumption that "all children in the United States should be able to function fully in the English language" (August & Hakuta, 1998: 14). Other countries, such as those in the Southern African region, the Southern Indian Ocean Rim countries and as far afield as the republics of the Russian Federation,

experience true multilingualism with respect to indigenous languages and have made great efforts to reform and adapt their education policies to the best benefit of their multilingual learners. This has not been an easy process and still generates many dilemmas (Heugh, 2002a: vii). Some of these quandaries, especially those that arise in urban pre-schools, will be examined in the following discussion.

A brief historical perspective can provide the background to the present situation concerning LoLT in South African schools and pre-schools. Even though the focus of the overview is on language in the school and pre-school setting, this aspect of education is influenced by many other issues, especially values and beliefs, prejudice and discrimination relating to class, race and gender stereotypes (Fante, 2000: 36). Carey (1993), from an international perspective including experience in the South African context, points out that the issue of languages in education "is a particularly complex one due in part to the intense political, emotional, identity and religious factors that are associated with languages, ethnic identity and most importantly power and status" (Carey, 1993: 29). With specific reference to multilingual settings, Alexander (1995:38) observes: "the issue of language policy in the highly-contested sphere of education is a battlefield that is strewn with the corpses of theories and theses that have failed". It is certainly true that the language of learning and teaching has always been a source of controversy in southern Africa (Peirce & Ridge, 1997: 173).

Before 1994, learners received instruction in their home language from pre-school up to the end of grade four. For speakers of African languages, mother tongue instruction up to grade five was followed by abrupt substitution by English. This endorsement of English and the association between mother tongue instruction and the apartheid ideology, which placed emphasis on cultural and linguistic differences, may be the reason why mother tongue education is still viewed with deep suspicion by portions of the black population and researchers sometimes report considerable resistance against its implementation (Bosman & Van der Merwe, 2000: 224).

Some authors express very strong views on the subject of the earlier policy of mother tongue instruction. Luckett (1993) views it as proof of the apartheid system's "abuse of language groups to define 'national groups' for separate and unequal development", and posits that the imposition of African languages via Bantu Education effectually stigmatised these languages as symbols of ethnicity (Luckett, 1993: 39-40). Other authors (e.g. Calitz, 1993) point out that decisions on the language of instruction in multicultural settings are often taken from a political perspective, not from a linguistic or truly educational point of view. While in the pre-1976 era the policy regarding mother tongue education was disparaged as an attempt to expose black children to inferior education, the importance of mother tongue education has been central to the multicultural movement for more than a decade (see for example Calitz, 1993:107).

At the pre-school level, as may be deduced from the preceding paragraphs, mother tongue education whenever possible seems to have been an undisputed general practice over the years. An examination of the White Paper on Early Childhood Development (Department of Education, 2002a) reveals no mention of language of learning and teaching in the historical overview, the main issues being provision of and access to services. Children from urban and higher-income groups are reported to have more access, and access to services of much higher quality, than poor or rural children, while children with special needs in this age group generally have limited access to ECD services. Children from any particular language background are not listed as a historically disadvantaged group. However, multilingual urban pre-school settings have not escaped the general politicisation of the education arena (Calitz, 1993) and are likely to suffer the same consequences as other levels of education.

Despite these challenges there still seems to be much reason for optimism. This positive outlook is reflected in the writings of educators as well (see for example Fante, 2000:35). In South Africa, there has been a decisive movement away from colonial language models (Peirce & Ridge, 1997: 180). Multilingualism has been officially accepted as an asset despite the practical difficulties brought about by

having eleven official languages. Because of the pragmatic approach to putting the language policy into practice, exemplified by Sachs's (1994) discussion of language rights in the new South African constitution, there is reason to anticipate an eventual practical and practicable course of action.

In the meantime, however, teachers in multilingual pre-schools often find it difficult to meet the needs of all the learners with regard to language development and at the same time comply with the request of parents that their children be prepared for entering schools with English as LoLT (Du Plessis & Naudé, 2003). Information that could help teachers to identify those children who require specialised services in order to achieve optimal language development would be a valuable resource. In a survey conducted in the Pretoria inner city area, teachers indicated a need for this kind of information (Du Plessis & Naudé, 2003:122), since the LoLT in the surveyed pre-schools is mother tongue/first language for less than 50% of the children (Du Plessis & Naudé, 2003:126).

2.2.2. *Mother tongue education and additive bilingualism in South African schools*

The linguistic, academic and social advantages of mother tongue education at all age levels, and of bilingual schools, have been pointed out in both local and international publications (Owens, 2004:435; UNESCO, 1953; Lind & Johnston, 1990: 126; Veloso, 2002: 80; Heugh, 2002a:vii). The new language policy (Department of Education, 1997a) ascribes legitimacy to a learner's home language, advocating that learners should be taught in their mother tongue for as long as possible and other languages should *be added to*, rather than *replace,* the mother tongue (Bosman & Van der Merwe, 2000: 224).

Authors in the field of education in South Africa have expressed themselves strongly in favour of mother tongue education as foundation for an additive bilingual approach, that is, acquisition of a second language whilst retaining the first language. This approach has even been described as the only viable option (De Klerk, 2002a: 16) and in some regions, such as the Western Cape, children

have for many years started off with education in their mother tongue (in this case Xhosa), switching to English in their fourth year at school (Morris, 2002:6).

In other regions, it has not been as easy to apply the additive bilingual approach, and English is often the language of learning and teaching from pre-school level for children who have other home languages (Naudé, Meyer, De Jongh & Du Plessis, 2000). This practice is a cause of concern for many stakeholders. Heugh (2002b) cites a long list of authors (including Baker, 1988; Cummins, 1984; Krashen, 1996; and Skutnabb-Kangas, 2000) who have provided evidence that children who are plunged too quickly into an English-only education without strong support in the school for their home language, will experience failure in school. This holds true in particular when the child's home language has a lower status in the community than English.

Education authorities in South Africa have attempted to address this issue while remaining fully aware of the reality of the multilingual situation and the availability of both schools and teachers.   South Africa's Language in Education Policy (Department of Education Language in Education Policy, 1997a) advocates:

1. The maintenance of learners' home languages at the same time as they acquire additional languages (i.e. additive bilingualism)
2. Communication across the barriers of race, language and region
3. Respect for languages other than one's own.

Being multilingual, it is pointed out in the policy, should be a defining characteristic of being South African.

Although the national policy of a country officially endorses home language education and additional multilingualism, the policy statement does not necessarily bring about change in the language practices in schools and preschools – a reality long recognised in international literature (German, 1973: 77, quoted in Paulston, 1992; August & Hakuta, 1998: 17). Despite the undisputed advantages of mother tongue education and bilingual schools, where learners are ensured "equal access

not only to the school door but also to useful and meaningful engagement with the curriculum" (Heugh, 2001: 3), these conditions cannot always be achieved in reality.

In urban schools and pre-schools, where children with many different mother tongues are present in each class, three problems arise. Firstly, how to educate each child in his/her own mother tongue; secondly, how to select the second language if education is to be bilingual; and thirdly, how to respond to parents who wish to have their children educated in a non-mother-tongue (usually English). While the Final Draft of the South African Languages Bill (2000, quoted in De Klerk, 2002a: 2) states that "functional multilingualism" is to be actively promoted, it is not always clear how this is to be done. Learners, or in the case of young learners their parents, may choose the language of learning and teaching, although this is a qualified right (Department of Education, 1997a: 2). Schools are encouraged to adopt a language policy supportive of general conceptual growth among learners, and where learners are disadvantaged because the language of learning and teaching is not the same as their home language, schools are advised to provide support for them (Probyn, Murray, Botha, Botya, Brooks & Westphal, 2002: 30).

It is difficult to envisage the type of individual learner support required in truly multilingual settings. However, a common language factor seems to have evolved in South African schools, namely the use of English as preferred language. De Klerk, citing three references, points out that "there is increasing evidence, ironically, that English is growing in its tendency to monopolize many areas of public administration in South Africa, and in many other multilingual contexts such as…schools" (De Klerk, 2002a: 2). Pre-schools can be included in this list of multilingual contexts.

At present it appears to be an accepted fact that English will be one of the languages of the multilingual South African speaker (Heugh, 2005). De Klerk (2002a: 2) argues that South Africa needs a curriculum and language-in-education

policy that specifies early literacy and language development in the mother tongue, "while at the same time ensuring that everyone has equal access to English. …[B]y learning through the first language, learners will get the best chance to develop cognitively and to succeed academically" (De Klerk, 2002a: 2).

While access to English is often assured, the ideal of mother tongue education may not be achievable in all South African schools, the main reason being that different regions present different language profiles. Although South Africa has eleven official languages, there are 27 living languages listed for the country in the Ethnologue (Grimes, 1996). According to the Census 1996 figures (Census in brief, 1998), isiZulu is the mother tongue of 22,9% of the population, followed by isiXhosa (17,9%), Afrikaans (14,4%), Sepedi (9,2%), English (8,6%) and Setswana (8,2%). The rest of the languages each account for less than 8% of the South African population. These percentages, however, offer no indication of the diversity of geographical distribution of these languages.

Table 2.1 presents a strongly simplified picture of the widely differing language profiles of South Africa's nine provinces. The table lists the distribution of first languages by province (in percentages) as found in certain areas of the province (adapted from the language maps for South Africa provided by the UNESCO World language survey, UNESCO, 2000). This information differs from the percentages for each province as a whole (as reflected in Census in brief, 1998), but because each province is composed of geographical areas with widely differing population profiles, an overview of the language situation per province only would disregard much of the relevant indication of diversity.

Gauteng heads the list as the province representing the widest variety of languages with a more than 40% distribution among its residents, while three provinces (Eastern Cape, Western Cape and Limpopo Province) each harbour only one main language group and none with a 40 – 59% distribution. Languages with a lesser distribution per area are not included in Table 2, but it is important to bear in mind that the complete multilingual picture is far more complex than Table 2.1 might

seem to indicate.   Especially in urban areas, many more of the 27 languages referred to earlier are present (Naudé, Meyer, De Jongh & Du Plessis, 2000) and some of these languages with minor status may play an important role in specific districts where there is a concentration of speakers of a specific language.

Table 2.1.   **Simplified language profiles of the nine provinces of South Africa as deduced from the 1996 census.**

Province	Number of languages with more than 40% representation	Language/s with ≥ 80% representation in certain areas	Language/s with 60–79.9% representation in certain areas	Language/s with 40-59.9% representation in certain areas
Gauteng	6	None	*IsiZulu* *IsiNdebele* *Sesotho* *Afrikaans* *English* (small area)	Setswana
Mpumalanga	4	*IsiZulu* (in southern Mpumalanga)	*Isizulu* *Siswati* *Xitsonga*	Afrikaans
Northern Province	4	*Sepedi* (in south and central Northern Province) *Xitsonga* (in east Northen Province)	*Setswana* *Tshivenda* *Sepedi*	
Free State	4	*SeSotho* (in central Free State)	*Setswana* *Sesotho*	*IsiZulu* *Afrikaans*
Northern Cape	3	None	Afrikaans	*Setswana* *IsiXhosa*
KwaZulu Natal	2	isiZulu *English* (small area in southwest KwaZulu Natal)	English	
Eastern Cape	1	Xhosa		
Western Cape	1	Afrikaans		
Limpopo	1	*Setswana*		

Adaptation of data obtained from Census in brief, 1998 and UNESCO World language survey (UNESCO, 2000).

Scrutiny of Table 2.1 allows a prediction that pre-schools in Gauteng are more likely than not to be multilingual in character.

2.3   Language profiles of South African schools and pre-schools

The language profiles of the various geographical areas of South Africa are reflected to a certain degree in the language profiles of the schools and pre-schools. In 2000, 83% of pupils in South Africa were African-language speaking (SAIRR,

2000: 127), and 28% of schools were described as "multi-racial" (South African Institute of Race Relations [SAIRR], 2000: 219). Heugh (2002b: 185) points out that this means that just over a quarter of the schools in the country have learners from more than one language group. However, since the number of learners in classrooms in rural and township schools is reported to be higher than in the urban schools and independent schools together, the percentage of African-language speaking learners in schools that are not multilingual may be greater than 70%. The percentage of unilingual schools is high in certain provinces (over 90% in both Limpopo/Northern Province and Eastern Cape, and over 80% in KwaZulu-Natal), while the more metropolitan and urban provinces (the Western Cape and Gauteng) have fewer unilingual schools (between 50% and 55%) (Heugh, 2002b). According to Heugh (2002b: 185), Gauteng has only 7,1% of the schools in the country, and the high incidence of truly multilingual school communities in this province cannot be regarded as indicative of the situation across the rest of the provinces, where the incidence of monocultural and linguistically homogenous schools is much greater.

However, as Wolhuter (2000: 156) points out, much of the education research in South Africa has been carried out in explicitly rural settings. There is no doubt about the relevance and value of such research. There are more rural than urban schools and they serve a much larger geographical area in the country. The majority of South African adult citizens, nonetheless, are city dwellers and their children therefore attend multilingual schools (Wolhuter, 2000:156). Furthermore, the children of poor urban communities are specifically mentioned in the Education White Paper on early childhood education (Department of Education, 2002a sections 1.2.3 and 1.4.6) as one of the groups that most urgently need investment in early childhood development. The challenges presented by these multilingual pre-school communities require keen investigation and careful deliberation, in order that meaningful suggestions for meeting those challenges may be put forward. The "hyper-multilingual" educational environment clearly places unique demands on learners, teachers, community and policy-makers alike.

Despite the clearly stated Language in education policy (Department of Education, 1997a), which advocates maintenance of learners' home languages at the same time as they acquire additional languages (i.e. additive multilingualism), many non-English parents still choose to place their children in pre-school settings where English is perceived to be the main language of learning and teaching, or at least where they surmise that their children will learn English together with their home language (Working Group on Values in Education, 2000).   The reason for this choice is not always that they see the English schools as somehow "superior" in the form of education that they provide (Thorpe, 2002).   As Heugh (2002a, b) and Bosman and Van der Merwe (2000: 224) explain, the point is that children need access to the formal written standard of English for academic and later economic reasons.

In other cases, especially in inner city areas where schools that cater for languages other than English for learning and teaching are scarce, parents probably do not in all cases deliberately choose English as language of learning and teaching for their children; in many cases, they may simply have opted for the nearest school because these schools happen to be most conveniently situated near to the family's residence or the caregivers' workplace (geographical considerations).

Parents' views on school language issues have not been ignored by researchers. A MarkData national sociolinguistic survey (commissioned in 1999 by PANSALB, cited in Heugh, 2001), reported that 88% of respondents favoured the maintenance of home language alongside the second language such as English. In a study carried out in Grahamstown (De Klerk, 2002a), Xhosa-speaking parents whose children attended schools with English as language of learning and teaching offered a wide range of reasons why they had chosen an English school for their child. Of these, the largest percentage (26%) mentioned the need for a better education and a more stable learning environment. The next most proffered reason (19%) was that they viewed English as an international language, necessary for progress in the modern world. Other reasons were more or less related to these two main reasons. A small percentage (1%) of the reasons given were more pragmatic,

such as closer geographical proximity to an English school (De Klerk, 2002a:7). In urban areas, these three reasons are probably combined.

As Heugh (2001:4, 2005) points out, and De Klerk (2002a: 3) agrees, alongside the mother tongue, English is the obvious additional language of choice in education. Demographic facts of language distribution in South Africa are that English has the widest and most general distribution of all languages, while indigenous languages are concentrated in particular geographical areas (De Klerk, 2002a: 3).

The maintenance of the home language alongside the second/additional language such as English may be achieved when English is the main language of the school, spoken by the majority of the learners, and parents and teachers exert themselves to maintain and develop the non-English home languages, as propagated by the National Association for the Education of Young Children [NAEYC] (1996: 9). However, schools with English as language of learning and teaching are reporting a change in learner profile. Whether or not future cohorts of children will be able to acquire English in the school setting depends very largely on the extent to which English-medium schools are able to maintain the demographic balance in which English speakers significantly outnumber other speakers (De Klerk, 2002a: 10). In urban areas, this has most likely long ceased to be the case.

A further challenge related to English as language of learning and teaching (ELoLT) concerns the multilingual status of the teachers themselves. According to De Klerk (2002b: 25-26), the number of highly trained mother tongue English teachers in South Africa is declining. Where teachers themselves do not have English as their first language, there is a very real possibility that "those who profess use of English hardly speak the standard form targeted at school" (Owino, 2002: 198). Wolff (2000: 23), who in singularly strong terms pictures the dire consequences of depriving children of their mother tongue during education, also warns of the negative effect of "inadequate role models" of English as the preferred target language. When these two conditions (non-mother-tongue education and an inadequate model of the LoLT) are present at a pre-school level, the predicted

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impact includes negative academic, emotional and socio-cultural consequences at school, eventually leading to destructive outcomes such as joblessness and juvenile delinquency (Wolff, 200:23).

Extreme multilingualism of both learners and teachers, the predominant use of English as language of learning and teaching, and limited exposure to English from peer models constitute the language challenge, and a potential barrier to academic learning and social development, for pre-school learners in many urban South African settings.

2.3.1. LoLT in pre-schools in Pretoria inner city area

Practical experience and observation indicates that young children in multi-lingual pre-schools in the Pretoria inner city area are not being taught a second or additional language, which in most cases is English, in any *formal* sense. They are mostly being encouraged to acquire the additional language in a "natural" way. According to national policy (Department of Education Language in Education Policy, 1997a), which advocates multilingualism at all levels, education in the pre-school years should be provided in the learners' first language while the additional language should be introduced in a natural and non-forceful way. The following factors make this composite ideal difficult to realize in some settings:

1. Where there are truly multiple languages represented as first languages within the same classroom, it seems unfeasible to provide education in the first language for all learners (Du Plessis & Naudé, 2003).
2. Where children have not succeeded in developing a true first language, due to home or environmental factors, it is unlikely that an additional language will be acquired spontaneously when introduced in a natural way, because the ability to acquire a second language successively may be a function of the level of development in the first language (Owens, 2001:431).
3. Where there is such limited contact with the primary caregivers that the particulars regarding the child's home language/s are unknown, it may be difficult to establish these particulars from a very shy or reticent child.

4. Where the teachers are not proficient in the primary languages of the various learners in the pre-school classroom. It is an accepted fact in South Africa that some teachers in multilingual classes are unilingual or, at most, bilingual (Heugh, 2005).

All of these factors are encountered in the Pretoria inner city area (Du Plessis & Naudé, 2003; Naudé, Meyer, De Jongh & Du Plessis, 2000). It is clear that teachers in this geographical area (as in many other urban areas in South Africa and other countries) are working in a non-ideal setting as far as language in education is concerned, but they are trying to follow the route of facilitating natural acquisition of the language of learning and teaching (LoLT). In many cases, English is both the LoLT and the language of mutual understanding – the only language appearing in the language repertoire of both the teachers and the families represented in the pre-school class. In the case of many of the pre-school learners, however, their contact with English may have been limited to exposure to English television programmes.

2.4   Language development in multilingual children

Any study of language development reveals the well-known apparent paradox: "language is hopelessly complex but children acquire it with ease" (Sabbagh & Gelman, 2000: 715). However, when language acquisition does not proceed smoothly, this very complexity brings about a complex of consequences.

The importance of language for academic progress and social acceptance was considered in the previous chapter. DeThorne and Watkins (2001: 142) discuss research reports from several authors supporting the observation that the perceptions of family members, peers, teachers, and society at large influence how an individual child is treated and consequently how that child develops. As the child approaches school age, the perception of his or her language skills by the significant adults and peers becomes especially influential in shaping the child's social and academic development (August & Hakuta, 1998:32). At the same time, language skills also shape academic potential in a very fundamental manner

through the influence exerted on reading and writing (Fey, Catts & Larrivee, 1995: 4). The importance of language development, then, can hardly be overemphasized.

Research in the field of child language is not monolithic, and the literature on child language development approaches this topic from various perspectives. Notably, there are differences of opinion between those who contend that children extract regularities from the language they hear with the aid of innate capacities that are not specific to language learning, and those who consider that genetically encoded linguistic information plays a serious role (Foster-Cohen, 1999; Sabbagh & Gelman, 2000). The practical approach generally adopted by speech-language therapists and others who have to deal with the outcomes of children's language development, or lack of development, is that both approaches provide insight and inspiration (e.g. Foster-Cohen, 1999). The language environment, the general propensities of the child and the child's specific ability to acquire language are certainly all implicated in the language development of every multilingual child.

Much has been written internationally about the language development of bilingual children (e.g. Grosjean, 1982; Baker, 1993; Owens, 2001; Hoff, 2005) but relatively little about language development in truly *multi*lingual children. In South Africa, as elsewhere in Africa and in India (Heugh, 2002b: 188), children are usually bilingual but also very often multilingual. Some authors even regard multilingualism as the norm rather than the exception for young children in South Africa (Wolff, 2000:18). While general information on the language development of young children who live with multiple languages is available in the literature, the term "multilingual" is usually equated with "bilingual" in the discussion of pertinent issues (e.g. Goorhuis & Schaerlaekens, 2000: 89ff).

As explained by Owens (2001: 431), a truly bilingual person possesses a dual language system simultaneously available during language processing. In addition, semantic input may be processed in each language regardless of the language of input. True multilingualism, then, implies that multiple systems are available and that semantic input can be processed in each of these systems when the input is

from any of the other languages. At the other end of the scale is semilingualism, where the individual is at most semi-proficient in both or all languages (Owens, 2001: 429). It is conceivable that severe semilingualism can lead to far-reaching language impairment persisting across the lifetime of the individual and causing significant difficulties in school, as described for specific language impairment (SLI) (Fey, Catts & Larrivee, 1995: 3-4).

According to Owens (2001: 427), true balanced bilingualism, or equal proficiency in two languages, is rare. True multilingualism must then also occur rarely. Non-balanced bi- and multilingualism, in which an individual has obtained a higher level of proficiency in one of the languages, is more common. The language in which the individual is more proficient may not be the first language, but may be the language of learning and teaching, as reported for Xhosa (first language) and English (language of learning and teaching) by De Klerk (2002a).

It is generally accepted (Owens, 2001:430) that the effects of bilingualism/multilingualism on language development will differ with the age at which the additional language/s is/are presented, and also with the manner of language acquisition. Manner in this context refers to the distinction between simultaneous and successive bilingualism/multilingualism. *Simultaneous bilingual acquisition* refers to the development of two languages prior to age three (Owens, 2001: 430). Where the second language or additional language is introduced after the age of three and usually not in the home context, the term *successive bilingualism* or *successive multilingualism* is used.

Children attending pre-schools in the South African context are past the age of three years. Therefore, if the second or additional language is introduced at this stage, they can be described as developing successive bilingualism/ multilingualism. In cases where children have not yet acquired a basic first language at the time of entry into pre-school, they will be more likely to be at risk for semilingualism than to be true simultaneous bilingual or multilingual learners.

While the literature on the development of simultaneous bilingualism in young children (e.g. Owens, 2001: 430-431) deals with issues concerning lexicon and syntax, discussion of successive bilingualism in young children (e.g. Hamayan & Damico, 1991) centres more around social and psychological factors than linguistic factors such as vocabulary and morphosyntax.

The rate and manner of simultaneous bilingual language development appear to be the same as for monolingual development (Owens, 2001: 430). As development proceeds, environmental shifts will influence the dominance of either language, and the temporarily dominant language may then influence the other language. This influence will mainly affect vocabulary and idioms (Grosjean, 1982). If words from different languages are learnt in different contexts, each word will tend to remain tied to the context in which it was acquired. For syntax, however, the situation is somewhat different. Syntactic structures that occur in both or all languages are usually acquired first, and simple constructions are acquired before complex constructions. The implication is that if a specific sentence type has a more complex structure in a particular language, it will be acquired first in the language in which it is represented by a simpler structure (Owens, 2001:431).

In the South African context, many young children demonstrate both simultaneous bilingualism (as a result of multiple home languages) and successive language acquisition when they enter the pre-school after the age of three. They therefore have to cope with challenges relating to both the vocabulary and morphosyntax of the LoLT on the one hand, and the social and psychological factors related to functioning in a non-mother-tongue environment on the other hand.

Most children who have successfully acquired a first language are reported to acquire a second language rapidly, although the strategies children use will differ according to the child's age, the child's linguistic knowledge, and the nature of the two languages (Owens, 2001: 432; National Association for the Education of Young Children [NAEYC], 1996: 4).

Successful progress in sequential language acquisition seems to depend on two motivating factors: a positive attitude toward the language to be acquired, the speakers of that language, and the culture they represent (Hoff, 2005:347); and the need to acquire the specific language for either social or academic purposes (Owens, 2001: 432). As in the case of simultaneous bilingualism, the acquisition of successive bilingualism outside the classroom, or in the pre-school where the additional language is not taught formally, is considered to take place in three stages. However, the nature of these stages is very different to the nature of those described for simultaneous bilingualism.

In the first stage, the child is primarily engaged in establishing social relations with peers and other speakers of the second language. Information exchange is secondary to social interaction and the child relies to a large extent on fixed verbal formulas learned as single units, such as *how are you, check this,* and *okay*. The learning strategy is to assume that what is being said is relevant to the situation or to what the speaker is experiencing. The language formulas are scanned for recurring linguistic patterns. The social strategy is for the child to act as if he or she knows what is being communicated and to use the known formulas to communicate.

In the second stage, not just social interaction but effective communication becomes the goal. The child's communication strategies include using the linguistic units he or she understands and can produce for the purpose of communication, while not being over-concerned about details. A transitional system or interlanguage may develop at this stage. Each interlanguage has its own rules, some of which are derived from each of the languages the child is acquiring and some of which are the child's own unique creations. Interlanguage changes constantly until the differentiation between the languages being acquired has been completed. Various hypotheses regarding the process of language differentiation in bilingual development have been put forward, but no researcher has yet developed an unassailable theory in this regard (Hoff, 2005:339).

In the third stage, the child begins to concentrate on accurate vocabulary and correct language forms. Because the child has previous experience with acquiring and learning about a language, he or she is observed to be "more mature than the typical simultaneous bilingual learner and can apply general knowledge of language to an analysis of this particular language" (Owens, 2001: 432).

This process has not yet been researched in the multilingual urban South African context. Although the home environment of individual children may be bilingual or even monolingual, and although there may be only one LoLT, the school is always multilingual on the playground. It is possible that the drive to accept and be accepted by the main school culture will operate somewhat differently in a situation where most of the members of the school community (learners as well as teachers and other personnel) are from "diverse" language backgrounds.

Since certain language processes are basic, and since the child who has acquired a first language already has a perceptual system, a speech motor repertoire and a cognitive-semantic base (Owens, 2001: 433), it is an acceptable argument that a first language can form the foundation for a second or additional languages. Although it is possible that interference can occur, Owens (2001: 433) reports that errors, although similar, are more limited than in first language acquisition and that fewer than 5 percent of the errors in second language are traceable to this source. Whether this holds true in the case of multilingual speakers is unknown.

Notwithstanding the focus on social and personal factors in the development of successive bilingualism, some details have been documented concerning the form and content aspects of non-simultaneous second language acquisition. In general, it seems that second language learning by young children mirrors first language learning (Owens, 2001: 433; Krashen & Terrell, 1983:28- 29). Language acquisition in both cases begins with single words or short phrases, and proceeds to short sentences and morphological markers. Sentence transformations such as negative and question transformations also follow acquisition patterns similar to the patterns described for first language acquisition.

It is interesting that Krashen and Terrell (1983: 29) report research findings showing that subjects who speak different first languages demonstrate remarkably similar temporal patterns of acquisition for English morphemes. For both children and adults acquiring English as second or additional language, the average order of acquisition of grammatical morphemes is reported to be comparable to the order of acquisition for young children acquiring English as first language.

Although these basic developmental sequences have been demonstrated, recent research (Klein & Moses, 1999:11) reveals that there is some variation in the developmental sequences of language development in both languages and dialects. It has also been pointed out that both language and personality factors may be involved in the process of language acquisition (for example Owens, 2001: 432, National Association for the Education of Young Children [NAEYC] 1996: 4), and that there are certain dimensions that appear to contribute to successful acquisition or learning of an additional language (Obler, 1989:142). The National Association for the Education of Young Children [NAEYC] (1996: 4) proposes that professionals involved in the education of multilingual pre-schoolers adopt the following position:

> Just as children learn and develop at different rates, individual differences exist in how children whose home language is not English acquire English … Each child's way of learning a new language should be viewed as acceptable, logical, and part of the ongoing development and learning of any new language.

In supporting this proposition, however, professionals can never ignore the possibility that some young learners may experience difficulties that require special support. The influences of poverty and its associated health risks, overpopulated classes, illiteracy among parents, and non-child-centered child rearing practices in South Africa as a developing country lead to a particularly high risk for impairment in language development (Pickering, McAllister, Hagler, Whitehill, Penn, Robertson, & McCready,1998). In addition to these risk factors there is the possibility of SLI, which has an estimated incidence of between 5% and 20%

(Hoff, 2005:321). In order to identify those learners with language impairment it is essential that data be made available regarding the typical characteristics of any particular language community. In the South African inner city context, young multilingual children are usually exposed to one or more African languages at home, English as language of learning and teaching, and also local variants of English from various sources in the community, which may include parents and teachers. For this reason, the variant of English being developed by these children may be unique and should be described with particular regard to those aspects of form, content and use that are often associated with language impairment.

2.5   The difference between language disadvantage and language impairment

While South Africans are encouraged to celebrate diversity (De Klerk, 2002a: 2) and international literature on child development points out the advantages of bilingualism over monolingualism (Owens, 2001:435), there is an indisputable danger that the very diversity of languages in pre-school settings may mask the presence of true language disorders in some children.

2.5.1. *Language difference and language disadvantage*

Language difference is defined in the literature as a valid rule-governed linguistic system or language style that deviates in some way from the standard usage of the specific target language, such as dialects or the influence of a first language on a second (Paul, 1995: 152, in Jacobs & Coufal, 2001: 67; Owens, 1999: 102).

Pre-school children who demonstrate language difference because their mother tongue is not the same as the language of learning and teaching are not necessarily placed at a disadvantage by this circumstance. The ability of young bilingual children to catch up with their monolingual peers in the development of various basic communicative skills by the age of 10 has been well documented (Hoff, 2005:345-346), despite the fact that they are "aiming at a moving target" because their peers are also progressing in language development (Crutchley, 1999: 202).

Language disadvantage may begin to manifest, though, if a child has not had sufficient time to develop adequate proficiency in the language of learning and teaching when the formal academic programme (including understanding higher level academic content through reading and writing) commences. The development of such academic language proficiency may require four or more years (National Association for the Education of Young Children [NAEYC] 1996: 8).

However, a language difference itself is not the only language-related factor to be taken into consideration for academic progress. A language disadvantage occurs when there is a communication mismatch between the child's experience and the expectations of the social environment (Jacobs & Coufal, 2001: 68). The well-known work of Heath (1986) concerning the influence of cultural difference on narrative discourse illustrates the negative judgements that teachers may make. The obvious conclusion is that language difference, when considered in conjunction with cultural difference, can lead to language disadvantage in an educational setting when the teacher expects certain communicative behaviour from the child, which is not forthcoming because a different set of expectations apply in the child's home setting.

In urban settings, and particularly in inner city communities, language difference does not always signify cultural difference, since an inner city community has a unique social ecology (Wolhuter, 2000: 156) and may develop its own unique culture. Language disadvantage in these settings is often caused by lack of adequate communication experience rather than anything else (Goorhuis & Schaerlaekens, 2000: 66; Locke, Ginsborg & Peers, 2002:3). This disadvantage may have negative consequences for academic and social progress, but is not in itself considered to constitute a language disorder leading to impairment (Owens, 1999: 4). In practice, however, especially at pre-school level, it is often unclear how typical ('language difference') phenomena are to be differentiated from atypical ('language disorder') phenomena (Crutchley, 1999: 203; Jacobs & Coufal, 2001: 67), because language production is affected in both cases. A further

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relevant distinction presented in the literature, that between language disadvantage and language disorder, is discussed in the following section.

2.5.2. *Language disadvantage and language disorder (including specific language impairment)*

A language disorder is an "underlying inability to learn and process any language adequately" (Roseberry-McKibbin, 1994: 81). A language disorder may lead to impairment in daily living, and this impairment will most likely persist across the lifetime of the individual. Research has indicated that children diagnosed with language impairment in the preschool years subsequently experience significant difficulties in school (Fey, Catts & Larrivee, 1995: 3-4).

Language disorders leading to impairment may be caused by central processing factors including cognitive disorders, peripheral factors including deficient sensory and/or motor systems, and/or environmental and emotional factors (Nelson, 1998: 96-97). In the case of multilingual children, as in the case of unilingual children, these causative factors may be identified and addressed. In some instances, however, a relatively isolated impairment affects language development specifically. A general definition for specific language impairment (SLI) states that children with this diagnosis "exhibit significant limitations in language functioning that cannot be attributed to deficits in hearing, oral structure and function, or general intelligence" (Leonard, 1987: 1). The features described, therefore, are mainly exclusionary rather than inclusionary, but there are certain basic language abilities that have been shown by research to present problems for children with SLI. Problem areas for these children include lexical abilities, syntactic production and comprehension, narrative production and comprehension, and phonological awareness. Children with SLI also seem to be unable to profit from early exposure to print.   Deficits in all of these areas are readily observable well before children with SLI enter school (Fey, Catts & Larrivee, 1995: 4). The difficulties experienced by these children are observable in conversation, in narrative discourse and in the development of meta-language skills. As a result,

children with SLI exhibit academic problems with learning to read and write. Both reading and writing are processes that rely heavily on the abilities to understand, formulate, and think about language, and children with SLI have deficits in some or all of the basic language abilities closely associated with reading success (Fey, Catts & Larrivee, 1995: 4). Researchers and theorists are currently debating whether SLI is characterised more by developmental delay, which has been noted for several language areas and is often greater for production than for comprehension, or by deviance as well (Hoff, 2005:321). An asynchrony in the development of the various components of language may explain both the observed delay and the perceived deviance (Hoff, 2005:322). Rollins (1994:373) uses the metaphor of a braid with the strands coming undone to illustrate this aspect of SLI.

Although authors agree that SLI leads to language learning disability, it is a hazardous practice to diagnose pre-schoolers with *learning* disability. Young children are notoriously difficult to test on normative tests because they are often influenced by both external factors (situation) as well as internal factors (mood). In addition, because these young children are still in the process of developing their language skills, and the pace of development is individual for each child, it may happen that some normally developing children will obtain low scores on language tests at the time of testing but score higher at a later stage (McFadden, 1996). In the USA, caution against hasty diagnosis has long been advised. In 1985, the National Joint Committee on Learning Disabilities developed a position paper on 'Learning Disabilities and the Preschool Child', in which they warned (National Joint Committee on Learning Disabilities, 1985: 1):

> Indiscriminate premature labeling of the preschool child as learning disabled is not warranted. Normal development is characterized by broad ranges of individual and group differences, as well as by variability in rates and patterns of maturation. During the preschool years, this variability is marked. For some children, marked discrepancies in abilities are temporary and are resolved during the course of development and within the context of experiential

interaction.   For other children, there is a persistence of marked discrepancies within and among one or more domains of function, necessitating the child's referral for systematic assessment and appropriate intervention.

Literature from the United Kingdom (Conti-Ramsden, Botting, Simkin & Knox, 2001: 207-219) reports that 58% of children who presented with language impairment in their first year of school could be said to meet criteria for specific language impairment leading to language learning disability in their final year of primary school.

In the South African context, children with English as additional language who demonstrate language difference in the pre-school may find their problems resolved at some stage during their school years, but those who do not, may have an undetected specific language impairment leading to language learning disability. The lack of locally normed, standardised tests in South African languages make it even more likely that language impairments will not be adequately identified.

Besides academic skills, children need social skills to succeed in school. Children with language impairments are often reported to demonstrate social and behavioural problems (Fey, Catts & Larrivee, 1995: 5).   Children with SLI are typically identified by their pre-school peers (Fey, Catts & Larrivee, 1995: 6) as the least preferred playmates . Teachers, too, have been shown in several studies to express a negative assessment of the general capabilities of children with SLI and also of their background (Fey, Catts & Larrivee, 1995: 6).

Research by Gertner (1993, in *Fey et al*., 1995) showed that their peers did not perceive pre-school children who were learning English as a second language (ESL) as negatively as children with SLI. In fact, the ESL children were the group preferred second most as playmates, while the children with SLI were the least preferred.   These findings indicate that poor communication skills and non-standard language use (language difference) are not to be equated.

However, since a child with a language difference may also exhibit a language disorder; it is the task of the speech-language therapist to separate natural language variations from atypical deviations in the child's linguistic rule system.   The question has been phrased as follows: "Does the student have a language-learning disability or is she merely manifesting the normal process of acquiring a second language?" (Roseberry-McKibbin & Brice, 2005).   This challenge is faced by therapists and teachers in various countries.

2.6   Language difference and language disorders in multilingual children

If language disorders are generally difficult to pinpoint accurately in young children, the challenge becomes even more complex in a multilingual setting. Physical, psychological, and environmental causes of language disorder (Nelson 1998: 96) will influence multilingual children in the same way as they influence unilingual children.   And, as in the case of unilingual children, there will be multilingual children who struggle to progress in language development despite the absence of such negative factors. Bilingual/multilingual children are no more or less likely than unilingual children to have language disorders, including specific language impairment. Bilingual learners with SLI have been studied and reports in the literature show that they mainly exhibit the same characteristics as unilingual children with SLI, but with some additional behavioural problems probably caused by the intensified frustration of inadequate communication (Crutchley, Botting & Conti-Ramsden, 1997).

The characteristics of SLI found in pre-school children may be divided into the following categories: problems with requirements for language learning, general language characteristics, phonologic features, morphosyntactic features, pragmatic features, and semantic features. A summary of these features are provided in Table 2.2. The table also outlines those morphological indicators of SLI specific to English, as well as characteristics of specific language impairment observed in bilingual learners.   This information will be important as a guideline when determining which aspects to include in the description of a typical language

profile of young EAL learners, which will be utilised to differentiate between children with and without language impairment.

Table 2.2.   Characteristics of specific language impairment in young children

General characteristics of SLI *Problems with requirements for language learning:* Poor ability to perceive sequenced acoustic events of short duration Poor ability to use symbols Poor ability to invent syntax from language of environment Inadequate mental energy Probably long-term memory storage problems *General language characteristics* Expressive as well as receptive difficulties Slow processing	
Phonologic characteristics (language form) Phonologic simplification patterns typical of younger children	**Morphological indicators of SLI specific to English**
Morphosyntactic characteristics (language form) Reduced use of questions Difficulty acquiring verb structures Co-occurrence of less mature and more mature syntactic and morphological forms Developmental order similar to that found in typically developing children	*Verb structures:* General verb knowledge inadequate Prolonged acquisition period for regular past form Bare stem of verb produced for both regular and irregular past Percentage of correct irregular past forms comparable to younger MLU-matched children Tense marking (only indicative for 5+ years) Auxiliary verbs omitted, especially in more complex propositions Slope of increase in finite verb morphology as function of lexical diversity is less than for typically developing children
Pragmatic characteristics (language use) May act like younger typically developing children Difficulty adapting language to listener Difficulty repairing communication breakdowns Age-appropriate pragmatic functions but ineffectively expressed Less effective in securing conversational turn than peers Narratives less complete, more confusing than those of peers	*Noun phrase structures:* Noun morphology inadequate (only under 4 years) Function words (determiners, prepositions) omitted in obligatory contexts Pronoun usage comparable to that of younger MLU-matched children Over-use of one pronoun form rather than random errors
Semantic characteristics (language content) Slow emergence and development of vocabulary Naming difficulties, possibly related to semantic storage (lack of richness and diversity) Under-utilization of available lexemes	
Additional observations pertaining to bilingual learners with SLI Phonological problems not observed Emotional/behavioural problems (bilingualism seen as aggravating factor) Does not become proficient in L2 even after 2-3 years of exposure	Abbreviation: MLU = mean length of utterance

Sources:
Conti-Ramsden & Windfuhr, 2002; Crutchley, Botting & Conti-Ramsden, 1997; Grela & Leonard, 2000; Johnston, Miller, & Tallal, 2001; Leonard, Miller & Gerber, 1999; Nelson, 1998: 104; Owens, 1999:37 – 38; Rice, Wexler, Marquis, & Hershberger, 2000.

Identification of SLI usually depends on both exclusionary and identifying characteristics (Table 2.2). However, young sequentially multilingual children who are in the process of acquiring English may also exhibit some of these characteristics. In the literature from the USA, bilingual learners are described as experiencing problems in the areas of vocabulary and phonological awareness (Bland-Stewart & Fitzgerald, 2001; Hadley, Simmerman, Long, & Luna, 2000; Obler, 1989). Morphosyntax is not mentioned as a problem area, but it constitutes one of the main aspects of dialectal variants of American English, especially those referred to as "racial and ethnic dialects" (Owens, 2001: 416). Owens (2001: 408-437) discusses the major characteristics of various dialects of American English (African American English, Latino English, Asian English) and lists several characteristics of morphological use, which correspond with those found in children with SLI (Table 2.2).

Table 2.2 indicates that children with SLI have inadequate general verb knowledge, and also inadequate noun morphology if they are under four years of age or are functioning at that age level. For this reason Table 2.3, *Selected morphological characteristics of some dialects of American English*, focuses on verb and noun phrase structures.   Specific characteristics corresponding to those found in children with SLI are shaded in Table 2.3.

Table 2.3. **Selected morphological characteristics of some dialects of American English**

	African American English	Latino English	Asian English
Verb structures	Past tense inflection omitted **Yesterday he walk to school**	Regular past tense inflection nonobligatory	Past tense inflection omitted Irregular form over-regularised **I eated**
	Regular present 3rd person –s nonobligatory *He like hamburgers*	Regular present 3rd person –s nonobligatory	
			Auxiliary verbs omitted or uninflected **I going home**
Noun structures	Possessive –s nonbligatory **Get mother coat**	Possessive indicated by post noun modifier **Coat of mother**	
	Plural form nonobligatory with numerical quantifier **Ten dollar**	Plural form nonobligatory **The girl are playing**	Plural form omitted with numerical quantifier
Pronoun forms	Pronominal apposition (resumptive pronouns) **Mother she say…**	Pronoun omitted when subject has been identified in previous sentence	Case confusion **Him go**
Prepositions			Often omitted **We go bus**
Determiners	*A* for *an*	Often omitted **Going to store**	Often omitted

Adapted from: Owens 2001:419-429

The English language characteristics of multilingual children in South Africa with English as additional language are less well known. Nxumalo (1997) has identified certain English language characteristics of one group of these multilingual children, and once again there is a notable measure of overlap between the characteristics found in this group and those found in children with SLI (Table 2.4). Nxumalo's (1997) subjects were multilingual pre-schoolers in the Johannesburg urban area, who had all been exposed to at least one African language at home.   Also included in Table 2.4 is English language data from adult multilingual African language speakers in the Northern Province/Limpopo, North West, and Gauteng, all with English as additional language. Data for these adults includes features judged to be grammatically acceptable by more than 50% of the participants in a research project (Van der Walt, 2001:1-11). If adults find these features acceptable, the chances are that they use them in their own production of English, and children who are exposed to these forms will adopt them.   The correspondence between the two lists confirms this assumption.

In Table 2.4, morphological characteristics corresponding to those found in children with SLI are shaded as in Table 2.3. In addition, the characteristics corresponding to those reported by Owens (2001: 419-427) for speakers of American English dialects are marked by an asterisk. It is interesting to note that, although many of the characteristics of American English dialects and especially African American English do not appear on this list, the number of characteristics noted in the English of these South African multilingual speakers that correspond to American English dialectal use (10) is more than the number of characteristics not noted for American English dialects (8). According to Owens (2001: 433), there are certain common differences to be noted in second or additional language learners. These include omission and overextension of morphological inflections, double marking, and the use of archiforms (use of one member of a word class to represent all members, for example *that* for all demonstratives) and free alternation (usage of the members of a word class without concern for the different meanings, for example indiscriminate use of the demonstratives *this, these, those)*. Most of these observations also seem to be borne out by the information in Table 2.4. However, there are sufficient examples of unique morphological structures to warrant a specific investigation into the English of multilingual, specifically EAL, South African pre-schoolers. Sufficient data in this regard is not yet available and the data that there is has not been described or presented in such a way that it can be utilised in a language profile.

Table 2.4. **Morphological structures used by multilingual South African pre-schoolers and judged acceptable by multilingual adults**

	Multilingual children	Multilingual adults

Verb structures	Past tense:
	
	* Inflection omitted, past indicated by "did"
	    He did go to school last year
	
	Past indicated by present progressive
	    Yesterday she is coming here
	
	*Irregular past tense over-regularised
	    She eated
		Past tense:
		
		*Inflection omitted, past indicated by "did"
		
		*Irregular past tense over-regularised

	Progressive tense:
	-ing nonobligatory
	    When she was walk home…
	
	Extension of progressive aspect to stative verbs
	    I am having a cold
	
	Extension of progressive aspect to habitual/repeated actions
	    She making toast every morning
		Progressive tense:
		
		Extension of progressive aspect to stative verbs

	Present tense: *Regular present 3rd singular –s nonobligatory He go there every day	Present tense: *Regular present 3rd singular –s nonobligatory
	Auxiliary verbs: *Auxiliary *be* omitted He drinking coffee	

Noun structures	Plural:
	*Plural inflection nonobligatory
	    Two bucket
	
	Non count nouns marked with –s
	    Lots of sands
		Non count nouns marked with –s

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	*Possessive 's omitted That father car	
Pronouns	*Pronominal apposition (resumptive pronouns) My mother she say…	*Pronominal apposition (resumptive pronouns)
	Gender nonspecified I see a girl, he eating	Gender nonspecified
Prepositions	Incorrect use of prepositions I go in home	Incorrect use of prepositions *Prepositions omitted He was his office
Determiners/quantifiers	*Overuse of the I want the lunch now	*Overuse of *the* *Determiner omitted We go to shop

Adapted from: Nxumalo, 1997; Van der Walt, 2001.

2.7   Conclusion

The South African pre-school population in inner city areas is likely to be multilingual, especially in Gauteng (Heugh, 2002b). Since English is the language of learning and teaching in most inner-city pre-schools, many of these pre-schoolers demonstrate language difference, and in some cases language disadvantage. Given the data on the general incidence of specific language impairment, which reveals that approximately 5 percent of children in the preschool population have SLI (American Speech-Language-Hearing Association [ASHA], 2001), and the observation that this percentage is likely to be even higher in developing countries such as South Africa (Pickering *et al*., 1998), it is extremely likely that some of the youngsters will present with specific language impairment.

Indications from international literature are that specific language impairment demonstrates characteristics relating to all aspects of language (Conti-Ramsden &

Windfuhr, 2002; Grela & Leonard, 2000; Johnston, Miller, & Tallal, 2001; Leonard, Miller & Gerber, 1999; Nelson, 1998: 104; Owens, 1999:37 – 38; Rice, Wexler, Marquis, & Hershberger, 2000). Literature on language and cultural difference points out that this difference may affect certain aspects of pragmatic performance (Heath, 1986; Jacobs & Coufal, 2001) and semantic/vocabulary performance (Table 2.3). Literature from both the USA and South Africa reveals certain similarities in morphosyntax between children with specific language impairment and children with language difference (Table 2.4). Clinically oriented literature has often pointed out both the importance of distinguishing between these two groups and the practical difficulties encountered when attempting to do so (Craig & Washington, 2000: 366; Crutchley, 1999: 203; Crutchley, Botting & Conti-Ramsden, 1997: 267; Jacobs & Coufal, 2001: 67). A typical language profile of a particular subgroup will be a valuable resource for those professionals who need to be able to make this distinction.

Because research data from other countries cannot automatically be accepted as valid for South Africa, it is essential to begin collecting language data of different kinds that will assist speech-language therapists and teachers in differentiating between difference and disorder (Mattes & Omark, 1984: ix). This does not imply that the policy of mother tongue education with additive bilingualism is rejected. Important research needs to be conducted concerning effective pre-school programmes for the maintenance of mother tongue and development of bilingual skills for all language groups in South Africa. The present research project is to be seen as in juxtaposition to such endeavours, an essential adjunct if the complete spectrum of phenomena impacting on language development of South African children is to be described.

2.8   Summary

In order to understand why EAL children are taught in English even though the South African policy concerning language in education advocates mother tongue education and additive bilingualism, it is necessary to examine not only the

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historical background of South African education, but even more importantly the present realities of education in an urban South African context. The implications of English as language of instruction for young EAL children emerge more clearly when the significance of language development for social and academic development is detailed. This chapter described how language development in multilingual children is influenced by both the age at which the various languages are introduced and the way in which these languages are introduced. Literature on the development of specifically English as additional language was discussed to provide evidence that there is some overlap between the characteristics of EAL and the language characteristics of young children with Specific Language Impairment (SLI). There are indications that this holds true also for young South African EAL learners. The conclusion, therefore, was that a profile of the typical language characteristics of EAL pre-schoolers in a circumscribed geographical area will be an important resource for the teacher-therapist teams in that region who endeavour to assist young learners in achieving optimal language development for social and academic advancement.

CHAPTER 3

THE ROLE OF SPEECH-LANGUAGE THERAPISTS IN MULTILINGUAL SOUTH AFRICAN PRE-SCHOOLS

AIM: To place the role and activities of speech-language therapists within the perspective of the pre-school setting in South Africa, and to indicate the need for an instrument for language assessment as a resource for the teacher-therapist team.

3.1   Introduction

Before discussing the scope of a language profile to be constructed for EAL learners in multilingual urban pre-schools, it is prudent to examine the setting where it is to be utilised and the persons who will use it. Only against this background can the utility and relevance of a proposed resource be estimated.

3.1.1. The pre-school setting

Pre-schools, as the term is typically used, traditionally cater for young children from the age of three until the time when they enter a formal school programme.

The purpose of pre-school institutions

The generic and historic purpose of pre-school institutions is well described in the following excerpt:

> For decades, parents and families have brought their children to community programs for a variety of educational, social, and health services. To provide these services, professionals work with children and families to nurture and promote the developmental and physical well being of the child. Parents and professionals from an assortment of disciplines come together around a single common goal: creating the best possible program for this child and this family (Johnston, LaMontagne, Elgas & Bauer, 1998: 2).

This description does not only hold true for developed countries where formal early childhood programmes are long established. Professor Kader Asmal, in his capacity as

minister of education, quotes the UNICEF report, *The State of the World's Children 2001,* in his preface to Education White Paper 5 on Early Childhood Education (Departement of Education, 2002a):

> Although the particulars of their lives might differ, millions of mothers and fathers around the world, in both industrialised and developing countries, share the same story: finding and making time, investing energies, stretching resources to provide for their sons and daughters … They search for advice and counsel from informal support networks and community agencies as they struggle, often against great odds, to do right by their children.

Early childhood development (ECD) in South Africa is described as a comprehensive approach to policies and programmes for children from birth to nine years of age with the active participation of their parents and caregivers. Its purpose is to protect the child's rights to develop his or her full cognitive, emotional, social and physical potential. Consistent with the White Paper on Education and Training (Department of Education, 1995), early childhood development is defined as an umbrella term that applies to the processes by which children from birth to at least nine years grow and thrive, physically, mentally, emotionally, spiritually, morally and socially (Department of Education, 2002a).

The main ECD policy priority addressed in White Paper 5 is the establishment of a national system of provision of the Reception Year for children aged 5 years. The goal is for all children entering Grade 1 to have participated in an accredited Reception Year Programme. It is envisaged that three types of programmes will be accepted: programmes within the public primary school system, programmes within community-based sites, and independent provision programmes. In order to improve the quality of Reception Year programmes, all Reception Year educators will required to register with provincial departments of education, accredited Reception Year educators will be required to register with the South African Council of Educators and educators who do not have a specialised qualification to teach the Reception Year, will have to undergo approved training programmes. Although not specified as such, it is likely that the

training programmes will equip pre-school teachers to facilitate learning in various areas of child development. Language is stipulated in White Paper 5 as one of the prescribed development/learning areas for the reception phase (Department of Education, 2002a). Teachers of the pre-school year will therefore be cognisant of the important role language development plays in preparing children for school and for life.

For children younger than 4 years, a strategic plan for inter-sectoral collaboration will be developed. This strategic plan will focus on the delivery of appropriate, inclusive and integrated programmes, with a particular emphasis on the development of a national curriculum statement, practitioner development and career pathing, health, nutrition, physical development, clean water and sanitation, and a special programme targeting four year old children from poor families with special needs and those infected with HIV/AIDS (Department of Education, 2002a). These are clearly realistic and essential priorities, and while speech-language therapists may be surprised to find no specific mention made of language and communication development, it does not mean that language development ceases to be important. Level of language development in the pre-school phase continues to be the best predictor of future academic progress (Wentzel, 1991; Catts, 1993; Catts *et al*., 2001; Lockwood, 1994; Rossetti, 2001; Nelson, 1998; Capute, Palmer & Shapiro, 1987). Consequently, it is essential to ensure that the development of language skills form a prominent feature of early pre-school programmes in all settings.

The nature of pre-school programmes

Although early childhood programmes are often discussed collectively in the literature, they are in fact an array of widely different programmes with different goals, different service delivery strategies, and different outcomes (Gomby, Larner, Stevenson, Lewit & Behrman, 1995: 8). Therefore, it would be appropriate to describe the pre-school setting relevant to the present study.

 As in the case of most pre-school programmes all over the world (Gomby *et al*., 1995: 8), South African pre-school programmes have been designed to promote child development over a broad spectrum and to improve children's readiness to succeed in

school. Types of programmes in South Africa at present include the Reception Year (Grade R) at independent schools and attached to public schools, independent pre-primary schools that provide for children from 3 - 5 years of age, privately operated or community run créches or nursery schools, and home-based provision for children from birth to 5 years (Department of Education, 2002a).

Whilst the existing services and programmes vary greatly in terms of type, they also vary greatly in terms of what may be termed *quality*. From White Paper 5 (Department of Education, 2002a) it can be deduced that the elements constituting the widely varying quality of pre-school programmes in South Africa include the following: the educational qualification of the practitioners, the adult-to-child ratio, range of equipment, planning and provision of developmentally appropriate learning activities, and appropriate techniques for working with individuals, small groups, and large groups. A particular programme might demonstrate any combination of characteristics, and the geographical setting (urban, semi-rural or deep rural) does not necessarily determine the nature of these characteristics. However, experience has shown that urban pre-schools are likely to have practitioners with tertiary qualifications, large classes, and a fairly wide range of equipment. The planning and provision of activities, as well as the techniques for working with groups of various sizes, are influenced to a great extent by the multilingual nature of the young learners. In a survey of 32 pre-school teachers conducted in Pretoria inner city areas, less than 10% of the teachers reported that they had received any form of training on dealing with multilingual children, and more than 70% of the teachers indicated that they did not feel well equipped or competent to teach multi-lingual children in all circumstances and activities. These teachers indicated that they would welcome some form of support in their task of facilitating development in their multilingual learners (Du Plessis & Naudé, 2003).

3.1.2.   *The pre-school teacher*

The purpose here is not to find a generic definition of the term "teacher" or "educator", but to reflect briefly on the role of the teacher in a multilingual urban pre-school, who has to facilitate the overall development of young learners.

Early childhood educators deal on a daily basis with a wide array of persons, from early intervention specialists to parents (who are specialists in their own right). The nature of their occupation demands that they focus on both children and families. They must negotiate the differing goals and roles that each adult brings to the pre-school setting. In multilingual pre-schools the teacher is also expected to find ways of mediating communication between the various (often multilingual) role players. In many instances they must serve as advocates for their learners' families, they provide support and encouragement to parents, and negotiate models for participation and involvement on the part of a variety of professionals and non-professionals. They also have to be very creative in facilitating peer participation and involvement for groups of children from diverse language and cultural backgrounds. In their daily practice they develop expertise in many fields, including the integration of goals to create holistic education programmes. This description of teachers in multilingual pre-schools correlate well with the description of early childhood educators found in international literature (for example, Johnson, LaMontagne, Elgas & Bauer, 1998: 36, 37).

With specific reference to South African teachers, the Revised National Curriculum Statement (Department of Education, 2002b:3) states that the kind of teacher that is envisaged in the new education dispensation is "qualified, competent, dedicated and caring". Grade R (pre-school) teachers are included in this statement. The kind of learner whose emergence the teacher is to facilitate, is described as "confident and independent, literate, numerate, multi-skilled" (Department of Education, 2002b:3). These are high ideals, and though they are worthy of the calling of an educator, they may present some challenges in the current multilingual urban pre-school setting.

Reflection on these factors may well persuade all professionals, including speech-language therapists, who propose to become a part of any collaborative initiative in multi-lingual pre-schools, to do so with profound respect for the teachers who are the primary members of the collaborative team.

3.1.3. The speech-language therapist

The speech-language therapist, typically a "wearer of many hats" (Owens, 2004:4), is regarded as the professional with primary responsibility for intervention in cases of language impairment and also the facilitation of language development in all cases where such development is at risk.

The speech therapist as depicted in international literature

The work of therapists in school settings differs significantly from their work in health-care settings, not least because of strong philosophical and organisational differences between health and education (McCartney & Van der Gaag, 1996: 314). With reference to work in schools and pre-schools, Owens (2004: 351) describes speech-language therapists as problem solvers who, "with the guidance of a few principles", apply and adapt a variety of methods in seeking solutions to the diverse challenges inherent in this division of the professional field.   Speech-language therapists have to develop models of intervention that are a blend of the child's needs on the one hand, and the requirements and/or desires of the school, the individual teacher, and the speech-language therapist (see for instance Wren, Roulstone, Parkhouse & Hall, 2001: 109).

The speech-language therapist in South Africa

Speech-language therapists in South Africa are expected to be competent in delivering services to clients with developmental or acquired disorders of language and language processing as well as auditory processing (including its cognitive, sensory, social and emotional underpinnings) involving the subcomponents: phonology, morphology, syntax, semantics and pragmatics, and the modalities concerned with oral, written, graphic and manual modes of communication (Health Professions Council of South Africa [HPCSA], 2005a). The Professional Board for Speech-language and Hearing Professions lists the pre-school setting as one of the settings in which these services are to be delivered (HPCSA, 2005a). The nature of the speech-language therapist's services is described as the promotion of normal communication, as well as the prevention, identification, assessment, diagnosis, treatment and management of

communication disorders. More specifically, these services are expected to include certain detailed outcomes (HPCSA, 2005b). A summary of these outcomes as they relate to the pre-school setting is provided in Figure 3.1. The outcomes listed in Figure 3.1 correspond to internationally recognised expected outcomes as described by Owens (2004).

Prevention:
- Disseminating information.
- Participating in prevention programmes:
  inter-sectoral planning
  trans-disciplinary teamwork

Identification:
- Planning, initiating and conducting a needs-analysis.
- Plan identification programmes.
- Executing identification programmes.
- Training non-speech-language therapists to execute identification programmes.
- Managing and monitoring identification programmes.

Assessment:
- Determining appropriate assessment protocols.
- Applying appropriate assessment procedures and relevant tests.
- Determining appropriate intervention guidelines.
- Compiling accurate assessment reports.
- Making appropriate referrals.
- Conducting consultations.

Counselling:
- Assessing the client's counselling needs through a variety of methods.
- Planning counselling programmes incorporating existing support structure(s).
- Providing individual counselling.
- Monitoring progress during counselling.
- Collaborating with other professionals.
- Integrating counselling into other programmes.

Consultation:
- Providing information on individual clients as well as communication disorders in general.
- Delivering collaborative service within team on inter-disciplinary and intersectoral levels.
- Providing information on normal development and normal functions.
- Providing information on optimising the communicative environment.
- Providing information pertaining to professional functions.
- Functioning as an effective team member.
- Advising on professional issues.

Research:
- Recognising and/or identifying regional and national research needs.

Management:
- Ensuring professional networking through liaison with state and NGO sectors.

Figure 3.1.   Expected outcomes for South African speech-language therapists (Adapted from HPCSA, 2005b).

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The prominence of *consultation* as an area of service delivery is evidence of the readiness of the speech-language therapy profession to move into the new model of service provision to be discussed in the following section.

3.2   Settings and models of service delivery

The services provided by speech-language therapists in school settings should, according to the literature, be conceptualised not in absolute terms, but rather as a continuum of service delivery options (Wilcox & Shannon 1996:218). There are two continua that constitute the paradigm within which the role of speech-language therapists in multilingual urban pre-schools should be examined.

*Setting***:   Developed country_____→_____Developing country**

*Model***:   Traditional/medical_____→_____New/social-interactionist**

These continua relate to

1. the industrialisation, and consequently the financial and tecnological status, of the country where services are delivered, and
2. the model of service delivery that is followed.

This model is generally the one accepted by the educational and health services of the country, but sometimes these two institutions may be at variance with respect to their model of service delivery.

The influence of these two major aspects on the nature of the speech-language therapist's activities in schools in general, is depicted in Figure 3.2. The four quadrants represented are Developing Country –Traditional Model, Developing Country – New Model, Developed Country – Traditional Model, and Developed Country – New Model.

The current international speech-language therapy literature reports mostly on Developed Country – New Model, while the South African situation is Developing Country with a range of service delivery from Traditional Model to New Model. In the traditional or medical model, training institutions, schools, and medical facilities

that provide speech-language therapy services frequently separate the clinical process into distinct diagnostic and treatment functions. The use of isolated, individualized assessment and therapy sessions is encouraged by this practice. Furthermore, services are frequently provided in clinical settings apart from the family, education, living or work environment (Marvin, 1987:1).

The advancement of social-interactionist theories in language development and other findings of recent research (Salzburg Seminar Session 400, 2002) have prompted a shift away from a one-to-one instructional paradigm that is heavily dependent on artificial contingencies, contrived activities, and isolated learning environments. There has been a strong move to conduct services, including speech-language therapy, in the home or classroom environment, to "weave the intervention activities into daily living, play, and academics, and to use naturally occurring consequences to reinforce the targeted communication behaviours" (Marvin, 1987: 2; see also Throneburg, Calvert, Sturm, Paramboukas, & Paul, 2000).   This more natural approach is specially recommended for young children and students with learning disabilities (Marvin, 1987: 2). In developed countries, the New Model has been adopted by the majority of speech-language therapists (McCartney & Van der Gaag, 1996: 314-315; Owens 2004:4).   In South Africa, the South African Speech, Language and Hearing Association ([SASLHA], 2001) has expressed itself in favour of community based service provision, but no official policy regarding therapy in schools has yet been adopted.

Context		
Developing	**–**	**Developed**
Large numbers in class		*Small numbers in class)*
Inadequate service provision (large case loads)		*Adequate service provision(controlled case loads)*
Training of teachers ranges from well-trained to untrained		*Well trained teacher corps*
Under- and over-age learners		*Legislated individual service plans*
Multilingual learners		*Multilingual learners*
Inclusive education		*Inclusive education*

Model			Developing	Developed
Traditional	*Medical model*	*One-on-one service delivery*	Pull-out Consultation Interdisciplinary teamwork Providing information	Pull-out Consultation Interdisciplinary teamwork Providing information
New	*Social-interactionist model*	*Community based service delivery*	Outcomes based assessment Whole-class presentations Development of materials & resources (programmes)	Curriculum based assessment Classroom based Team teacing Collaboration Individual service plan development Transdisciplinary teamwork

Figure 3.2.   Nature of service delivery as influenced by context and model. (Adapted and integrated from the various presentations at Salzburg Seminar Session 400, 2002).

The primary line determining the decisions and actions of speech-language therapists in pre-school settings is the global context (developed - developing countries), while the service delivery model employed (traditional one-on-one model - contemporary community-based model) is the secondary line determining the way in which decisions and actions are carried out.

Other lines or continua that may determine various aspects of service delivery by speech-language therapists in pre-schools are the following:

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Age of children and their changing needs:

Entry group   →   Middle group →   Pre-school group →   Non-typical
(3 years)   (4 years)   (5 – 6 years)   (under- or over-age,
                                                                 special needs)

Developing countries context:

Africa   →   Specifically South African   →   Specifically Gauteng

Function in relation to people:

Communities   Families   Parents   Administrators   Teachers   Children.

Components of communication (interrelated):

Listening   Responding   Talking   Pre-literacy activities
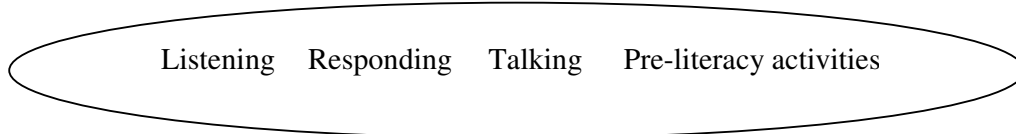
Communication settings (size):

Adult-child →Peer-peer →Small group →Large group→ Classroom →Playground

Tasks (integrated):

Prevention, Facilitation, Assessment, Intervention, Collaboration/consultation

In the following discussion of the activities of speech-language therapists in
multilingual urban pre-schools, the focus will always have to be narrowed down to the
specific context/setting, but for the rest of the lines or continua all components have to
be considered as and where they are relevant.

3.3   Activities of speech-language therapists in the pre-school setting

The activities of speech-language therapists in the pre-school setting can be viewed
from two main angles: the activities relating to the wide spectrum of tasks that may be
assigned to the speech-language therapist, and the activities necessitated by the various
relationships to different groups of people involved in the pre-school setting. Speech-
language therapists working in multilingual urban pre-schools relate mainly (but not

exclusively) to the following persons: children, classroom teachers, parents, school administrators, and other service providers e.g. occupational therapists, social workers.

3.3.1. Relating to people

Relating to teachers:

Speech-language therapists and classroom teachers have unique skills that they can use to help each other and children who are at risk for ineffective language development or who have language impairments. Speech-language therapists understand language development and the remediation of speech and language impairment, while classroom teachers know each child in their care and understand the use of large and small group interactions for teaching (Owens, 2004: 4)

With specific reference to interaction between teachers and speech-language therapists in pre-schools in developed countries, Owens (2004: 353) lists several activities of the therapists, for example *Assists teacher in assessing each child's level of functioning,* and *Helps teacher identify children with LI [language impairment] and suggests techniques to facilitate development.* This ongoing process is accomplished through in-service training and individual consultation and training, as well as with co-teaching within the classroom.

In South Africa, interaction between teachers and therapists has traditionally involved consultation and training, but there is as yet no evidence of co-teaching practice between teachers and therapists. Research on teacher-therapist co-operation in pre-schools reports mainly on aspects such as information/support required by teachers (e.g. Du Plessis & Naudé, 2003; Du Plessis, 1998).

Two models of co-teaching often encountered in the literature are team teaching and one teach/one drift. Team teaching as provided by a speech-language therapist is supplemental teaching in which the therapist as team member adapts the material for children with language difficulties. In one teach/one drift, one member teaches and the other assists learners as needed. Both models require a measure of role release, which refers to the idea that specialists work together, sharing their knowledge and skills. Owens (2004:353) reports as follows on the general view on co-teaching in the

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United States: "Both teachers and SLP's [speech-language pathologists] rank team teaching and one teach/one drift as the most appropriate model for collaborative teaching".

However, any realistic report admits that teacher resistance and what may be termed "therapist rebellion" are often encountered (Ehren, 2000:220). Difficulties often arise over turf or territory. The pitfalls are identified by Owens (2004: 4):

> The classroom teacher may feel threatened by the presence of another "teacher" in the classroom and may resent being shown how to talk to students to maximize each child's language learning. The SLP may feel like a classroom aide, undervalued for his or her expertise.

These differences and potential problems can sometimes be sorted out if they are discussed openly prior to beginning intervention. Not only overall philosophies need to be discussed, but also practical details of classroom management such as whether or not learners may move around between groups during specific activities (Owens 2004:4). In the South African setting, a very real complicating factor in this regard is that differing cultures between collaborators may make it more difficult to clarify these issues.

South African teachers in the study by De Klerk (2002b: 15-27) report that they have not been trained to cope with teaching multilingual classes, and have to rely on their own resourcefulness. Similar findings specifically in pre-school settings are reported by Du Plessis and Naudé (2003:11, 16, 19). The pre-school teachers also indicated that they would welcome any information, training, or support that speech-language therapists can provide. The preceding discussion indicates that therapists should exercise caution when proposing such activities, and ensure that potential barriers to successful co-operation are avoided as far as possible.

Relating to parents:

Although speech-language therapists who implement a community-based or ecological approach (Hammer, 1998) wish to include parents as members of the intervention team, it is prudent to remember that not all parents can or wish to participate in their

children's speech-language intervention (Owens, 2004: 352). In South Africa's multi-lingual urban pre-schools there are many factors (including parents' working hours, distance, cultural beliefs) that may play a role in this regard, and language diversity itself certainly cannot be ruled out as a possible contributing factor.

When parents can or do wish to be a part of the intervention team, it is important to consider very carefully the approach to be followed in each individual case. Dale (1996: 10-11) provides four models for parent-professional relationships. The *expert model* places the professional in full control of decision-making. The *transplant model* involves the parents in transmission of skills from the professional, thereby increasing their competences and resources, but the professional makes the decisions. In the *consumer model* the professional offers parents a range of options and information. Decision-making is negotiated, but parents have the final control. In the *empowerment model*, the professional actively promotes parents' control and power by taking the role of facilitator, but also taking on an expert or instructor role at a particular point in time when required to do so. The professional strives to be sensitive to the unique adaptational style of each family and social network.

Theoretically, and also ideologically, the empowerment model may seem to be the optimal or ideal model, but it may happen that parents feel more comfortable with the expert or transplant model. There has been no research as yet in this regard in multilingual pre-schools in Gauteng, and more specifically in Pretoria. In fact, parents are often regarded by teachers as notoriously "absent" or even unco-operative (Du Plessis & Naudé, 2003). The true needs and wishes of parents with reference to speech-language therapy in pre-schools urgently needs to be investigated before any assumptions can be made as to the most suitable model or models of interaction with parents in this setting.

Relating to school administrators:

When the role of speech-language therapists in American schools changed to accommodate a community-based and social-interactional approach, there was also a change in the relationship between therapists and school administrators (principals, heads of departments, and other executive officers):

> The speech-language therapist's new role may require some education of the administration. Traditional patterns of instruction change slowly, and administrators may not understand generalization and the need to provide language remediation within the classroom … Administrators will need to be impressed with the increased efficiency gained through the co-teaching of the speech-language therapist and the classroom teacher … the speech-language therapist's new role should be viewed within the perspective of a comprehensive school or district wide program that includes early childhood intervention, bilingual and bidialectal services, and the training of English as a second language.
>
> (Koenig & Biel, 1989).

The role of the speech-language therapist in South African multilingual urban pre-schools does not necessarily correspond in all respects to the role proposed in international literature, but will be determined to a large extent by the educational administrators in each province. Since this research is located in Gauteng, it is advisable to examine the literature and presentations emanating from the Gauteng Department of Education

Educators are encouraged to use the following strategies in providing challenging learning experiences (Fante 2000: 39):

1. Critical questioning
2. Posing problems
3. Decision-making
4. Investigation of definitions
5. Role play
6. Case studies
7. Action research

All of the proposed activities involve good language and communication skills as prerequisite. It is imperative, then, that these skills receive emphasis in the pre-school

years, and that administrators be aware of the relevance of the services provided by speech-language therapists in facilitating language development as well as in providing intervention for children with language impairment.

However, Fante (2000: 40) also urges: "There is a need for empowerment approaches to move away from the traditional notion that educators are inadequate by referring difficulties to experts who diagnose, prescribe and provide alternative instruction for the student".   This sentiment is echoed by other writers (for example, Mafisa, 2001:35). Dr Lekotla Mafisa (2001: 35-36), in a paper presented at the conference of the South African Society of Education, 2000, also pointed out that "[a]ny programme which bears fruit for educators is usually one in which they share its ownership and identity".   Speech-language therapists will need to heed the educators' wish to be respected as the primary role players in the school and presumably also pre-school setting, and to communicate this understanding to administrators.

3.3.2. *The tasks of the speech-language therapist*

The expected outcomes for South African speech-language therapists (section 3.1) are reflected in the tasks and activities of speech-language therapists as described in the literature. Owens (2004: 4) lists several activities specifically related to the school setting, for example assisting teachers in assessing each child's level of functioning, analysing the language requirements of various activities and materials, developing intervention strategies in conjunction with the teacher, helping teachers identify children with language impairment and suggesting techniques to facilitate language development.

It is clear that the tasks of the speech-language therapist all involve relationships with children, and mostly also with the significant adults in their lives, as described in the previous section. Figure 3.3 depicts the diverse tasks of speech-language therapists in pre-school settings, and is followed by a discussion of these tasks. There is a measure of overlap between several of them, but each is discussed separately in order to form a comprehensive picture of the role of speech-language therapists in urban multilingual pre-schools.
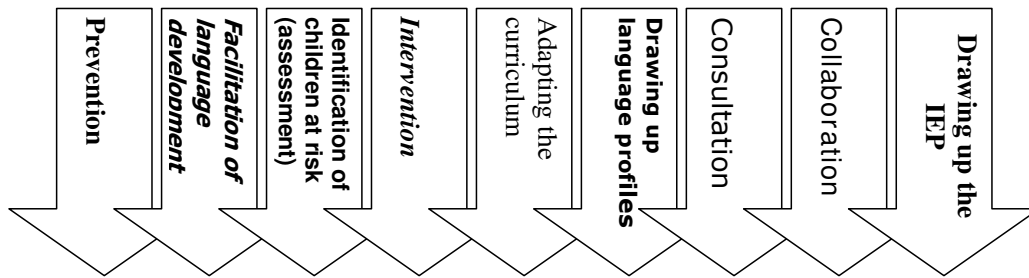
Figure 3.3.   Tasks of the speech-language therapist in the pre-school

Prevention

The assumption that early intervention, especially in the lives of disadvantaged children, provides the best opportunity to forestall later problems and to prepare children for school and life, is reinforced by evidence that "early childhood programs have produced long-term cognitive and social benefits for the children who enrolled in them" (Gomby *et al.*, 1995: 6).

The prevention of communication disorders is regarded as one of the primary functions of speech-language therapists (American Speech-Language-Hearing Association [ASHA], 1991). Prevention implies not only anticipation and consequent reduction/elimination of communication disorders and their causes, or early detection and treatment of communication disorders, but also promotion of the development and maintenance of optimal communication. Potential handicaps are thereby reduced or eliminated (ASHA, 1991). Language impairment leads to communication disability, which is a social handicap.

ASHA (1991) recommends certain prevention activities for speech-language therapists working in schools and pre-school settings. Two main tasks are relevant here.

1. Collaboration with teachers in identification and treatment (secondary and tertiary *prevention*) of communication disabilities. In the case of EAL the focus will be on language impairment.

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2. However, the speech-language therapist is also urged to explain to teachers the *difference* between language difference and language deficiency. Since language difference may also lead to communication disability in some cases, it is incumbent upon the speech-language therapist to assist the teacher in devising language development programmes where applicable.

Risk reduction is an important aspect of prevention. While it may be unrealistic to proclaim that language intervention programmes can eliminate all the language-learning problems and also the risk of subsequent school-related problems in young children with SLI, targeting certain areas for intervention may minimize these risks. Specifically, there is some evidence that early interventions designed to facilitate emergent literacy and to improve social-interactional performance could be useful in minimizing subsequent school-related problems, including reading failure (Fey, Catts & Larrivee, 1995:10; Craig, Connor & Washington, 2003: 31). Speech-language therapists are important members of the team charged with the early identification of children who are at risk for reading and other language-related problems (Catts, Fey, Zhang & Tomblin, 2001). Their task in this respect will be of special relevance in urban multilingual pre-schools where children from disadvantaged homes, children with special education needs and children with addition language learning (EAL) needs form a significant part of the school population.

The urgency of concentrating on preventing language difficulties or identifying potential risks at pre-school level is emphasised by the fact that children who are at risk will not be identified upon school entry, since language-based admission tests in schools were officially forbidden in South Africa in 1994 (De Klerk, 2002b: 17). Teachers in multilingual primary and secondary schools report that it often takes a full term to discover children's language and language-related problems (De Klerk 2002b: 18).

Facilitation of language development

Facilitation of language development implies the facilitation of social integration as well, which in turn will further facilitate optimal language development. DeThorne and Watkins (2001:142) report that pre-school teachers, when they were asked to rank

nine skills in terms of their importance for school entry, placed social interaction and communication first and second. They then make this interesting statement: "When children's communication skills do not meet teachers' expectations, children are likely to be perceived negatively and consequently may experience less academic and social success" (DeThorne & Watkins, 2001:142). (This was also illustrated in the study by Heath, 1983, quoted in Heath, 1986). Although the exact impact of expectancy effects is as yet controversial, DeThorne and Watkins (2001:142) discuss research reports from several authors who suggest that teachers provide a "warmer climate" and more learning opportunities for those children whom they perceive to have greater potential. Speech-language therapists in multilingual pre-schools therefore needs to collaborate with teachers to promote social integration, not only of children with language impairments in the classroom setting, but also of those learners who have not had the opportunity to develop their additional language which is the language of learning and teaching.

Further facets of this task include distinguishing children who talk differently from children with a language disorder (Kuder, 2003: 298), and facilitating the development of a classroom culture that does not discriminate against speakers who use different social dialects. One subtle form of discrimination may be having lowered expectations of children who speak specific dialects, or unintentionally reducing the amount of information that is given, in an attempt to reduce the language demands that are placed on EAL learners (O'Connor 2003: 9).

Identification of children at risk (assessment)

Although the identification of children at risk is regarded as the specific task of speech-language therapists, teachers often play a vital role in identifying children with language impairments if the therapist has alerted them to the behaviours that signal a possible impairment. Owens (2004: 425) suggests a form to be provided to the classroom teacher specifically for culturally and linguistically diverse children. A language profile could be equally useful in the South African EAL context. However, teachers should receive not only information, but also the support of training in using the resource material that the therapist provides.

Curriculum-based assessment, which uses the child's progress within the school curriculum as a measure of educational success, is often advocated as the most effective way for speech-language therapists to evaluate the language of learners who are not candidates for formal language testing. EAL learners in South African multilingual pre-schools are good examples of such learners. There are no formal language tests standardised for this population, and the cultural as well as the language diversity point to classroom based observation as a more time and cost effective procedure than testing. In curriculum-based assessment, children are assessed against the curriculum within which they are expected to perform (Owens, 2004:354). Therefore speech-language therapists need to know the pre-school curriculum.

In pre-schools in the United States, learning focuses on sensori-motor, language, and socio-emotional growth with materials that are manipulative, three-dimensional, and concrete. In the year before Grade One, learning focuses on perceptual-cognitive strategies with materials that are one-dimensional, abstract, and symbolic (Owens, 2004:354). South Africa does not yet have an official curriculum for all the pre-school age groups (Department of Education, 2002b), but pre-school programmes typically include the types of strategies and materials described above.

Speech-language therapists would do well to remember Nelson's (1998: 170) cautionary note that "[i]n addition to the school's official curriculum, which is an outline of the material to be learned in each grade, children encounter several other curricula". These include the curriculum that is actually taught in practice, and the cultural and school curricula that are needed to succeed within each context. The expectations of the school and of the main culture are often very confusing for children with language-processing problems and children who are from diverse cultures. The implicit expectations of individual teachers and of various peer groups can form a fourth curriculum (Nelson, 1998: 171). The speech-language therapist must become familiar with all the curricula that affect the children in the particular pre-school/s where he/she is delivering services.

Early identification of children with SLI, therefore also early distinction between language impairment and language difference as in EAL, is vitally important for the

academic and social progress of these children. As pointed out by Fey, Catts and Larrivee (1995:3), "it may be far more productive to view language impairment (LI) in preschoolers not only for what it is at present, but also for what it is likely to become as the child grows older". …

Intervention

Intervention with pre-school children will most likely include activities relating to literacy, such as narrative development and book handling skills, as well as other forms of listening, language and general communication development. These activities can be presented for whole classes, smaller groups, and individual children (Owens 2004: 366). The nature of these individual activities will not be discussed here, since the focus is on the overall task of intervention in the multilingual pre-school.

Intervention is the task most evidently dependent on the successful accomplishment of all the other tasks described here. Similarly, the success of intervention programmes depends upon good relationships with all role players. Lastly, the various interactional roles of the speech-language therapist (most notably, consultation and collaboration) will have to be performed efficiently. These assumptions imply that there will have to be effective and relevant resources for the use of the teacher-therapist team providing the intervention.

Adapting the curriculum

Officials of the Gauteng Department of Education (Bothma, 2000) suggest that the speech-language therapist can assist teachers in adapting the curriculum to the specific needs of a learner. The eight types of adaptation possible at pre-school level are depicted in Figure 3.4.

Size: adapt the number of items that the learner is expected to learn or complete.

Example: reduce the number of new vocabulary items a learner must learn at any one time.

Time: adapt the time allotted and allowed for learning, task completion, or testing.

Example: individualise a timeline for completing a task.

Level of support: increase the amount of personal assistance with a specific learner.

Example: assign peer buddies.

Input: adapt the way the instruction is delivered to the learner. *Example: plan more concrete examples, provide hands-on activities.*

Difficulty: adapt the skill level, problem type, or the rules on how the approach the work. *Example: simplify task directions*

Output: adapt how the learner can respond to instruction. *Example: allow learners to show with hands-on materials instead of explaining*

Participation: adapt the extent to which a learner is actively involved in a task. *Example: have the learner hand out materials while others follow intricate instructions.*

Alternate goals: adapt the goals or outcome expectations while using the same materials. *Example: expect the learner to be able to name examples of utensils, while others explain how to use them.*

Figure 3.4.   **Curriculum adaptations at the pre-school level (adapted from Bothma, 2000)**

These adaptations were originally suggested for learners with special needs in the inclusive classroom, but are appropriate for some EAL learners as well.

Drawing up language profiles

Several types of profiles that can be drawn up for learners by collaborative teacher-therapist teans are reported in the literature. There are two main profiles to be drawn up in the pre-school.

1. Oral language skills can be profiled as a continuous, day-to-day, week-by-week process (Butler & Stevens, 1997). The profile can then be compared to typical expectations for the relevant developmental level to identify children at risk for language impairment and also to determine the next stage of development to be facilitated. However, this presupposes the availability of developmental norms or some indication of expected performance. If a typical profile for EAL learners is available, these same functions can be fulfilled for young EAL learners.

2. Speech-language therapists can help teachers to draw up language profiles of learners in order to differentiate between faster and slower learners of reading. (Berninger, Abbott, Vermeulen, Ogier, Brooksher, Zook, & Lemos, 2002). It is conceivable, therefore, that profiles can also be drawn up at the preliteracy level (Catts, 1997). Since narrative skills are part of preliteracy skills, the information contained in a typical profile for EAL learners will be useful here in the same way as for oral language skills.

Consultation

Various forms of consultation appear in the literature, but for our purpose the following dual description is adopted: the consultant is an outside expert engaged in a voluntary relationship with primary interventionists (parents, teachers, caretakers). In the school setting the speech-language therapist is the consultant and the teacher is designated as the primary interventionist. The consultant's role is to assist in resolving a problem related to an individual or group of students. Consultation is also, however, a sharing of information between two professionals that provides the teacher the freedom to accept, reject, or discuss the speech-language therapist's ideas and suggestions (based on Marvin, 1987: 5).

Successful consultative behaviour is characterised by respect, co-operative ownership of goals, interchangeable situational leadership, minimal confrontation, optimal feedback and reinforcement, jargon-free communication, active listening, observation and databased decisions (Marvin 1987: 9-11).

There are several reasons why consultation in schools has been internationally accepted practice for many years (Marvin, 1987: 2-3):

1. Attention is focused on more than just speech-language behaviours, also on teacher or peer behaviours that can influence the social effectiveness of the student's communicative attempts; therefore aim to troubleshoot communicative interactions. Such troubleshooting is most successfully executed in environments where teachers, in particular, are viewed as having frequent and consistent access to the language learner and to natural opportunities for communication development.
2. Cost effective service delivery is obtained.
3. Better generalisation of new skills is promoted.
4. Speech-language therapists can inform teachers about the specific communication needs of students, so that teacher can identify and repair communication breakdowns with other students in the classroom.

In South African schools, speech-language therapists traditionally had a consultative role, but they are not always mentioned as members when the consultative role of the multi-disciplinary support team envisaged for the new education dispensation is discussed. From individual discussions with teachers in various settings, it is clear that they recognise the need for consultation, but also that there are stringent requirements to which teachers will expect non-teacher team members to adhere.

Collaboration

Collaboration may be defined as an interactive process that enables teams of people with diverse expertise to support each other and generate creative solutions to mutually defined problems – solutions that would not be possible if each were working alone (Johnston, LaMontagne, Elgas, & Bauer, 1998: 2-3). More specific to the speech-language therapist in the school setting, collaboration is described as an interactive process between two or more professionals who have mutual respect, educational philosophies, and communication goals for targeted students. Furthermore, the speech-language therapist and teacher/s have clearly stated the roles and responsibilities each person will assume during the implementation of a mutually

agreed upon plan for communication intervention in the school setting. This combined effort makes the speech-language therapist and teacher interdependent (Marvin, 1987: 9).

Between 1980 and 1990, the collaborative model of co-operation between speech-language therapists and teachers was developed in the United States (see for example Brandel, 1992; Ferguson, 1992; Marvin, 1987). As explained by Ferguson (1992: 371): "It became apparent to me that to be effective at teaching communication skills, not only did I need to connect the teaching of speaking, listening, and thinking with writing and reading, but I also needed to collaborate my teaching efforts with those of the classroom teacher in order to make learning meaningful for students". From these beginnings, therapists were gradually included as integral members of the elementary teaching team. They familiarised themselves with the curriculum and incorporated speech and language goals within classroom language lessons. Eventually they found themselves comfortable with incorporating speech and language goals into the content areas (Ferguson, 1992: 371). This approach has been propagated in South African schools since as early as 1993 by Barkhuizen (1993: 269). However, the team teaching approach that evolved in the United States (Brandel 1992: 369, 370) is not promulgated in the South African education literature.

The elements of collaboration are:

1. Learning and sharing the roles and responsibilities of all members of the collaborative team
2. Consensus building without hierarchical impositions
3. Group goal setting and decision sharing

(Johnston, LaMontagne, Elgas, & Bauer, 1998: 2-3).

In their historical overview of collaboration between teachers and speech-language therapists, Johnston, LaMontagne, Elgas, and Bauer (1998: 4-5) explain that a paradigm shift took place in the conceptual meaning of collaboration since the 1960s, with the first prescriptive efforts of school consultation, to the late 1990s notion of an inclusive collaborative model. In the classroom, the emphasis was placed on teachers'

autonomy and disciplinary expertise. Teachers were thought of as the authorities in their classrooms, and the unique expertise of others from related disciplines found in schools was clearly defined and separated. Speech-language therapists worked in therapy rooms and were isolated from other classrooms. Teachers and therapists struggled with skill generalization, competing priorities, and many other challenges involving communication, sharing of resources, and duplication of services. During the 1970s, the term consultation began to be used instead of collaboration. Initial consultation efforts were characterised by one-way channels of communication, with the therapist "helping the classroom teacher to solve the problem".

South African speech-language therapists in multilingual pre-schools are often still in the one-way phase described above. They are often required to give advice rather than work in a truly collaborative model. There are some dangers inherent in therapists giving advice to teachers: if the advice is successful, the result could be the dependency of the teacher on the therapist, and consequently inhibition of the ability of the teacher to develop skills in independent problem solving for the specific problem area. If the advice is unsuccessful, the result could be distrust and blame casting between the two professionals. Moreover, providing advice may result in strategies that the teacher is either unable to implement because it is outside his/her area of expertise, or unwilling to try because it is outside his/her philosophical orientation to implement (Johnston, LaMontagne, Elgas, & Bauer, 1998: 6). An interesting perspective on collaboration is provided by Nelson (1998: 18):

> To be effective, language specialists must envision systems holistically (in collaboration with others), while using specialized knowledge to analyze system subparts and modify interactions among them. This requires a sort of inner switching between rational thinking about linear relationships and holistic thinking about interactions.

Meeting the needs of teachers in the multilingual pre-school setting requires developing a collaborative model that will suit the very specific setting, and will certainly require both rational and holistic thinking.

Drawing up the Individual Education Plan (IEP)

As a direct result of Public Law 94-142 (IDEA, later expanded in PL101-476) (as cited by Fouché & Naudé, 1999), the 1970s saw the advent of IEPs in the United States. Several other countries (e.g. Australia, New Zealand) have adopted a similar model. In Great Britain, legislation led to the process of producing an official 'statement' indicating a student's special needs, and eventually to an individual education plan. An IEP is drawn up through a process of consultation and collaboration, usually involving class teacher, special education teacher, parents and school principal, as well as specialists such as psychologists, speech pathologists, physiotherapists, and occupational therapists. The child's current strengths and weaknesses are taken into account, long-term goals and short-term objectives are carefully prepared, and resource needs are identified. Time lines are usually established for the achievement of goals and objectives. Monitoring and regular review of progress are ensured through stipulated procedures. The roles and responsibilities of different role players involved in implementing and monitoring the programme are specified (Fouché & Naudé, 1999).

In the early years of IEP in the United States, the process was not an easy one as is evident from this statement: "Although the intent of the IEP process is shared decision making between parents and professionals, the skills and attitudes necessary to achieve this outcome do not necessarily come easily" (Paul & Simeonsson, 1993: 235). In South Africa no processes or appropriate legislation is yet in place for drawing up individual service plans, but therapists and parents are beginning to feel the need for such plans.

3.4   Conclusion

It is to be expected that new efforts and initiatives will meet with resistance from those people whose practice is affected by the changes to be brought about. With reference to the school setting in South Africa, Barkhuizen (1993: 270) remarks: "Not only are teachers resistant to change they are also rather suspicious of it". The same probably holds true for the pre-school setting.

However, investigation of the role and tasks of speech-language therapists in multilingual urban pre-schools has revealed that they not only have the potential to bring about positive change in service delivery to EAL pre-schoolers, they also have the obligation to do so in many aspects. A typical language profile of the specific group of EAL learners to be served may be a valuable resource in these efforts.

3.5   Summary

The role of South African speech-language therapists in the multilingual urban pre-school is determined by many variables, but especially by the unique setting and by the model of service delivery that is followed in the particular pre-school. The parameters of the role, which include relationships not only with the young children, but also with the parents, teachers, school administrators and other professionals involved, were discussed in this chapter. These relationships influence, and are influenced by, the various tasks that therapists are assigned or take upon themselves. If a language profile of EAL learners is needed, this requirement must emerge from a discussion of the role of speech-language therapists as members of language intervention and development teams.

CHAPTER 4

A LANGUAGE PROFILE FOR YOUNG EAL LEARNERS, TO BE USED IN COLLABORATIVE PRACTICE

AIM:
To suggest aspects of language to be included in a language profile for young learners with English as additional language (EAL) from three sources: universal characteristics of language development, language characteristics of SLI, and relevant language characteristics of EAL discussed in South African literature.

4.1   Introduction

When working with young children in the pre-school context, speech-language therapists are often faced with the dilemma of distinguishing between language *delay,* language *disorder* and language *difference*. Both a delay and a disorder may lead to impairment in daily living, and this impairment will most likely persist across the lifetime of the individual. Language difference, on the other hand, is not regarded as constituting a language impairment in itself (Owens, 1999:4). Many teachers of learners with English as additional language (EAL) in South Africa, however, have pointed out in personal communication that the language difference manifested in these children's use of English can lead to difficulties in school, especially when language is assessed in its written form. The task of the speech-language therapist, then, is twofold: firstly, to provide support for teachers in accepting and at the same time developing the English language skills of their typical learners with English as additional language (EAL), and secondly to identify and provide therapeutic intervention for those young learners with English as additional language (EAL) who have an inherent language impairment which will prevent them from benefiting from a language enrichment programme.

It will be to the advantage of teachers and therapists, as well as of the learners in any particular context, if a profile of the typical language of learners with English as additional language (EAL) in that setting can be constructed. Such a profile will assist the therapist-teacher collaborative team in selecting appropriate language enrichment activities, and will also aid the therapist in distinguishing between typical (language *difference*) and atypical (language *disorder*) language phenomena.

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Since the term *language profile* is central to the following discussion, it is necessary to define the term as it will be used here and to provide an indication of the scope of language behaviours to be included in a language profile.

4.2   Defining language profile

The fundamental definition adopted for the purpose of this study is the following:

> A language profile is a description of language behaviour within a specific
> time frame and circumstances
> (Adapted from Crystal, 1979:5).

The phrase *specific time frame* refers to the time at which the language behaviour was described for a particular person or group. Such a specification is essential in the case of young children where development progresses at a rapid rate, so that several developmental milestones are typically achieved within the time span of one year (Hoff, 2005:4-5). Acquisition of a first language or, in the case of multilingual households, first languages, commences at birth, accelerates between the ages of eight months and four years, and continues at a steady rate during the whole of a person's lifetime (Owens, 2001:77, 106). Because there is "nothing completely missing" from the linguistic competence of typical children at the age of four (Hoff, 2005:5), it is often said that language development is mainly completed by age four, but there are aspects in all three language dimensions (form, content and use) that continue to develop (Nippold, 2000). In the case of EAL pre-schoolers in formal pre-school settings, the LoLT (English) is usually introduced at the age of three when the child enters the pre-school. The entire pre-school period (three to six years) can therefore be regarded as a language development period of high significance. The present study focuses on describing the language behaviour demonstrated by EAL pre-schoolers between the ages of three and six years.

The phrase *specific circumstances* is intended to affirm the position of the researcher that a language profile drawn up in, and intended for use in the pre-school setting will not necessarily be identical to a profile drawn up for the same child or group of children in any other setting, albeit within the same time frame. By the same token a profile constructed

on the grounds of data from a particular type of conversational dyad will not necessarily be valid for conversations in other contexts.

Language samples are optimally collected in several settings and with various conversational partners (Bastiaanse & Bol, 2001; Furey & Watkins, 2002:434; Laing & Kamhi, 2003: 46; Leonard, Miller & Gerber, 1999; Nelson 1998: 298; Owens 2004: 8-9, 113; Schraeder, Quinn, Stockman, & Miller, 1999:196). In a typical Gauteng inner-city multilingual pre-school, however, it would be difficult to collect a language sample of *English* on the playground or in an unstructured classroom setting. Observation of these contexts indicates that multilingual children communicate with each other in various languages and that English is not necessarily the language of choice for peer conversations. This trend has been noted in South African education literature as well (Kamwangamalu, 1999). Because of the large number of children in a typical inner-city classroom, it is also difficult to obtain spontaneous samples of more than a few exchanges between the teacher and a particular learner. Finally, the large caseload of most speech-language therapists in South Africa precludes long periods of observation for the purpose of collecting language samples. For these reasons, the present description is specifically delimited to conversation between the speech-language therapist and individual pre-school EAL learners.

Concerning the phrase *language behaviour,* it is important to note that language profiles concentrate on either production or comprehension. There is no neat relationship between comprehension and production in the sense that the one always precedes the other, and a comprehension profile and a production profile for the same person will not necessarily parallel each other (Clark, 1974:1-10). The conclusion is that a profile of language comprehension for any individual or group cannot be inferred from the language production profile for the same individual or group. Language production may be systematically observed, but language comprehension is difficult to study. One reason is that comprehension is a "private event" (Paul, 2000:247), and indicators of comprehension can be misleading. Furthermore, comprehension is a "fuzzy term" (cf Gernsbacher, 1994:609). Even a simple version of this "fuzziness" poses difficult questions. If a child "comprehends" a question, is it because the child comprehends certain words contained in the question, or the morphosyntactic structure of the question, or the nature of the demand

placed by the question? For this reason, researchers generally limit their scope to either production or comprehension, and language profiles also generally concentrate on either language production or language comprehension, although these two processes are as intricately intertwined as the various subsystems of language. The present study will concentrate on *language production*. A profile of language comprehension will therefore have to be the result of a separate study.

A distinction may be drawn between a profile chart of *syntactic ability* and one of *communicative ability in general* (Crystal, 1979:44). The latter would include all possible responses, for example facial expressions, gestures, and action responses. These non-verbal responses have to be interpreted by the speech-language therapist as appropriate or not, which is not always an easy task, especially in a multicultural setting. A distinction can also be made, however, between a profile chart of *general* communicative ability, and one of *verbal communicative ability,* which would encompass more than a profile of syntactic ability. Rollins (1994:393) proposes a profile that includes measures of morphosyntactic ability, lexical ability and pragmatic ability. All of these measures concentrate on verbal communication, while representing the three dimensions of language proposed by Bloom and Lahey (1978), namely form, content and use. The latter proposal forms the basis of the present study.

In conclusion, although it would theoretically be possible to draw up a communication profile of EAL pre-school learners for all aspects of communication, it was considered more practicable and more effective to concentrate on expressive language skills, not communication in general, and not language-related skills. This decision in no way negates the importance of research to be done regarding other aspects of EAL development highlighted in the literature, especially those aspects of language development also recognized as relevant for the early identification of language impairment. A fully encompassing communication profile would need to include, for example, story telling, home language development, and pre-reading skills such as knowledge of various sound patterns in words, letter names, and concepts related to print (Owens 2001:399).

Based on the foregoing discussion, the present study aims to determine whether it is possible to draw up a profile answering to the following description:

> A characterisation of expressive language behaviour (in terms of form, content and use) of multilingual EAL pre-schoolers within a specific time frame (between the ages of three and six years) and circumstances (therapist-child conversational dyad in the pre-school setting).

A language profile is not intended to be diagnostic in the sense that it can be used to make predictions concerning the advance of a disorder and the effectiveness of remedial procedures (Crystal, 1979:3). However, this does not mean that it has no clinical use. In the clinical setting a profile is intended to be a descriptive tool relating level of achievement to structures that could be taught/elicited/facilitated next. Profiles do not reflect ability, but only performance. The absence as well as the presence of items on a specific child's profile may be significant. While the absence of a specific structure might mean that the child has not acquired that structure, it might also reflect the favoured forms of expression by more mature speakers in the environment (Theakston, Lieven, Pine & Rowland, 2002: 788).

Consequently, although inferences about ability may be made after completion of a profile (Crystal, 1979:7), it is well to remember that, as Foster-Cohen (1999:3) has pointed out, observations of child language production may be "woefully inadequate as a way of determining what they know about language". On the other hand, a well-constructed profile can be a powerful tool to be used by the teacher-therapist team for assessing the language behaviour of children from different language and cultural backgrounds, as noted by Schraeder *et al.*, (1999:198).

Having delimited the profile to a representation of expressive verbal communicative ability, it is tempting to include as many aspects as possible, but this is not a wise route to follow. The information to be included in a profile should be selected with care. Too many distinguishing features cause a profile to become unrecognisable or confusing, and too few distinguishing features have very much the same effect (Crystal, 1979:5). Since the purpose of this study was to draw up a profile of the typical language in learners with

EAL that will assist therapists and teachers in distinguishing between typical (language difference) and atypical (language disorder) language phenomena, the relevant features to be included were drawn chiefly from two sources: aspects of language typically found in children with language impairment, and aspects of language typically found in children with English as additional language.

One additional consideration should guide the selection of items to be included in a language profile that will be used in collaborative practice. The linguistic concepts and terminology involved, as well as the method of obtaining the requisite information, should be accessible to both the speech-language therapist and the pre-schoolteacher. Pre-school teachers in South Africa come from a variety of language and training backgrounds (Du Plessis & Naudé, 2003). If implementation of the profile as a tool for early identification of young EAL learners at risk for language impairment involves a great deal of additional effort from pre-school teachers, who already bear a heavy burden (for example large class sizes, multilingual learner profiles and other challenges), the chances are that it will be relegated to a file and ignored. For this reason, the following discussion will include only those language aspects and linguistic concepts that can be shared without intensive training by professionals from the two fields.

4.3   Aspects of language relevant for identification of specific language impairment in EAL

> Language is an extremely complex phenomenon, yet it is also elegant
> (Sabbagh & Gelman, 2000:715).

Language behaviours include a spectrum of diverse categories of conduct. The content-form-use classification (Bloom & Lahey, 1978) illustrated in Figure 1.3 (Chapter 1) will be utilised to systematise these categories of language behaviour and to organise sections of this chapter. The intention is not to imply that language is divisible, but merely to organise information.

Aspects of language form, language content and language use typically demonstrated by children with specific language impairment will be described first, followed by a brief

overview of features of language, mainly of language form, typically found in children with EAL.

4.3.1. Language characteristics of specific language impairment (SLI)

A general definition of specific language impairment (SLI) states that children who conform to this description exhibit significant limitations in language functioning that cannot be attributed to physical (central or peripheral), psychological or environmental deficits (Leonard, 1987:1; United States Office of Education, 1997:1082). The features described in the definition are mainly exclusionary rather than inclusionary, that is, the children displaying these features are to be *excluded* from the group designated as having specific language impairment. The problem inherent to this definition is that it does not allow the reader to conceptualise how children with SLI are to be identified when they are encountered.

In addition to the exclusionary characteristics, however, research has determined that there may be certain language features typical of children with specific language impairment. The characteristics of specific language impairment most commonly listed in the literature were presented in Table 2.1 (Chapter 2).

The language and language-related characteristics typically displayed by young bi- and multilingual children with specific language impairment (SLI) have yet to be described in detail. In Britain, research was conducted involving 242 children with SLI. The data on bilingual members of the cohort were examined to see if they exhibited any idiosyncratic traits (Crutchley, Botting & Conti-Ramsden, 1997). "Bilingual" was defined as "those who were exposed to a language or languages other than English at home" (Crutchley *et al.,* 1997:268). This definition includes children who are, in fact, multilingual rather than bilingual.

The researchers remark that it was tempting to assume that, in Britain's current multicultural, multilingual primary schools, bilingual children would be indistinguishable from monolinguals. However, this was not found to be the case, since bilingual children seemed to form a distinct, cohesive group, despite the randomised nature of the cohort as a

whole (Crutchley *et al.*, 1997:267).   The children designated as "bilingual" performed significantly poorly on tests of the following: number skills, naming vocabulary, word reading, comprehension of grammar, productive morphology, and providing information. In interpreting these results, however, it is important to note that the tests that were used may have discriminated against the bilingual/multilingual children. A further significant finding was that the bilingual children exhibited more emotional/behavioural problems at the time of testing than monolingual children, although on admission to the language units they tested no different from their monolingual peers on measures of emotional/behavioural state (Crutchley *et al*., 1997:272). These authors feel that bilingual children with specific language impairment tend to exhibit more severe language difficulties than monolingual children with SLI, and to progress more slowly in language development.   This experience of inadequacy may be the reason for the increase in emotional problems. They state that there is "a need for systematic research into this issue" (Crutchley *et al*., 1997: 273). Whatever the outcome of such research may be, the potential emotionally destructive effects of language difficulties once again highlight the need for early identification of young multilingual children with possible SLI.

Aspects of expressive language relevant for the identification of specific language impairment will of necessity be represented in the proposed language profile. In order to specify the details of these language features and the research relating to their relevance as identifying characteristics for specific language impairment it will be described here in detail to expand on the information provided in Table 2.1 (Chapter Two).

The term "clinical marker for SLI" (Leonard, Miller & Gerber, 1999; Rice & Wexler, 1996) will occasionally be used in the following discussion and requires some clarification here. If an area of language, such as grammatical morphology, constitutes an extraordinary problem for children with SLI, it is considered eligible to serve as a reliable clinical marker for SLI (Leonard *et al.*, 1999:678). Not all of the language behaviours described in the literature as characteristic of specific language impairment or language-based learning difficulties will automatically be eligible for inclusion in a list of clinical markers for SLI in young South African EAL learners.

This point can be illustrated by an investigation of one such list of language behaviours. Catts (1997) includes the following categories of aspects in his checklist for the early identification of language-based reading disabilities: speech sound awareness, word retrieval, verbal memory, speech production/perception, comprehension, expressive language, and a category labelled "other important factors".   The first four categories and the last category ("other factors") will be relevant in the case of all young learners preparing for reading instruction, and will therefore not be considered in this discussion. The items relating to language comprehension and expression may be associated with specific characteristics of EAL (see Table 4.1).

Table 4.1.   **Language comprehension and expression items on a checklist for the early identification of language-based reading disabilities** (Catts, 1997)

Language aspects specified by Catts (1997)	Comments
Comprehension: 1. Only responds to part of a multiple element question or instruction 2. Requests multiple repetitions of instructions/directions with little improvement in comprehension 3. Relies heavily on context to understand what is said 4. Has difficulty understanding questions 5. Fails to understand age-appropriate stories **6. Has difficulty making inferences, predicting outcomes, drawing conclusions** **7. Lacks understanding of spatial terms such as left-right, front-back.**	Most of these items describe receptive language behaviour that might be expected from young EAL learners who are still in the process of acquiring an adequate receptive English vocabulary for use in the classroom setting. Only the last two items describe behaviours that could point to specific difficulty in processing language.
Expression: 1. Talks in short sentences 2. Makes errors in grammar (for example "he goed to the store" or "me want that") 3. Lacks variety in vocabulary (for example uses "good" to mean happy, kind, polite) 4. Has difficulty giving directions or explanations (for example, may show multiple revisions or dead ends) **5. Relates stories or events in a disorganized or incomplete manner** **6. May have much to say, but provides little specific detail** **7. Has difficulty with the rules of conversation, such as turn taking, staying on topic, indicating when he/she does not understand.**	Once again, most of these items may describe the expressive language behaviour of young EAL learners who are acquiring the morphosyntactic rules of English and building a sufficient expressive vocabulary. The last three items may be more satisfactory as indicators of specific language impairment. Only if the errors in grammar are described in detail, and if enough information is available concerning the typical grammar of a specified group of learners, will grammatical errors be eligible as clinical markers in the case of EAL learners.

Language characteristics ascribed to children with specific language impairments, it would appear, might *as clinical markers for SLI* be specific to a particular context. In a dissimilar context they might not be useful as clinical markers. However, this conclusion is as yet speculative and needs to be tested for each context.

An overview of the research literature reveals that certain aspects have repeatedly been found to be relevant in describing the language characteristics distinguishing children with SLI from children with normal (typical) language. These aspects have been researched in considerable detail and will be discussed here with a view to selecting items for a possible language profile of young EAL learners.

Language use (pragmatic aspects)

With reference to the areas of pragmatic behaviour indicated in Figure 1.3, namely language functions, adapting to various listeners and situations, and keeping to conversational rules, there seems to be more evidence of delay than difference when children with SLI are compared to children with typically developing language (Nelson, 1998: 104). Children with specific language impairment may act like younger typically developing children, or they may have age-appropriate pragmatic functions but ineffectively expressed (Owens, 1999: 37).

Since there is no data available on age-appropriate pragmatic functions for multilingual EAL pre-schoolers in South African inner-city regions, the areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would need to include:

Communicative functions
    Interpersonal
    Ideational   (Keshavarz, 2001:187-196)

Certain specific pragmatic difficulties have, however, been observed in children with SLI (Owens, 1999:37 – 38). These include difficulty in adapting their language to particular listeners, and difficulty in repairing communication breakdowns. Their narratives also tend to be less complete and more confusing than those of their peers. While it is true that cultural factors may come into play in all of these three aspects, it would be relevant to determine what common features, if any, appear in the conversational skills and narratives displayed by young EAL learners.

Speech-language therapists often elicit narratives from children as a means of obtaining a language sample for syntactic analysis (McCabe & Rollins, 1994:45; McGregor, 2000:55).

However, the analysis of narrative structure in itself provides significant insights regarding the development of one aspect of pragmatic skills, namely the ability to follow the rules for a specific type of discourse (Owens, 1999:229).

In recent years, the importance of narration for children's development of discourse and literacy skills has also been widely recognised. Clinicians now recognise that narrative discourse development "predates and predicts successful adaptation to school literacy". (Rollins, McCabe & Bliss, 2000:223). The various types of narrative discourse include fictional story telling and retelling, event casting, and factual personal memory narrating. Children's personal narratives have been found to develop structural complexity before fictional narratives, and this finding has important implications for assessment protocols (Rollins *et al.*, 2000: 223). Factual personal narratives can be regarded as the most appropriate medium for gaining insight into the abilities of 2- to 5-year olds and for school-age children with limited verbal abilities (Owens, 1999:229).

Clinicians and teachers need to be aware that narrative structure is influenced by cultural preferences, as well as language development. Research involving children from various cultures (Rollins *et al.,* 2000: 224) has shown that narratives from different cultural groups are distinctly organized and a narrative structure that seems atypical may reflect cultural variation, not impaired narration. However, Rollins *et al.* (2000: 224) caution that it is equally important not to mistake impaired narration for cultural variation.

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore include:

Narratives	
Analysis of personal narratives	(Rollins *et al.*, 2000:223-234)

Breakdowns in communication occur when one communication partner does not understand what the other partner is trying to communicate. The ability to respond to communicative failures by modifying the message in some way so that it is understood, is an important conversational skill (Hoff, 2005:267; Owens, 1999:168), often included in assessments (Klein & Moses, 1999:66). Efforts at repairing miscommunications can be

seen even in preverbal children, and developmental changes in how children repair messages on a verbal level have been documented (Hoff, 2005:267). Research reports suggest that young children (1 to 3 years old) are more likely to attempt repair by simply repeating their message, while older children (3 to 5 years old) react to misunderstanding by revising their message (Owens, 2001:365; Hoff, 2005: 268).

Communication with additional language speakers is conceivably often even more prone to breakdown than is the case with monolingual adult-child communication. It is therefore important to record the typical responses of EAL pre-schoolers to communication breakdowns, in order that both response and lack of response may be accurately interpreted.

Of equal significance is the child's ability to demonstrate "awareness of the cooperative nature of conversation" (Owens, 2001:168) by also being aware of his/her own possible misunderstandings or failures to understand, and consequently requesting repairs or clarification from conversational partners. Children with language impairment are often unaware that miscommunication has occurred, or inclined to believe that the miscommunication is due to their own inability rather than to a lack of clarity on the part of the speaker (Owens, 2001:169). These children may therefore make fewer requests for repair than expected. However, this reluctance to request clarification is not necessarily an indication of language impairment. In practice, teachers often report that young EAL learners demonstrate the same disinclination to indicate that they have not understood the communication of an adult. For this reason, it was considered worthwhile to investigate the typical behaviour of EAL pre-schoolers when they are confronted with communication breakdown.

Language use includes the ability to follow the rules of conversation (American Speech-Language-Hearing Association [ASHA] 1990). Conversational rules include turn taking, responsivity to the conversational partner, and appropriate behaviour. Children with language impairment have been found to be less responsive than typically developing children of the same age, and to respond to questions with stereotypic acknowledgement

(Owens, 1999:156). It would be of interest, therefore, to determine the typical patterns of responsivity found in pre-school EAL learners.

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

Conversational skills
Conversational rules
Repairing breakdowns
Appropriateness of responses
Conversational turn-taking   (Owens, 1999:168-171)

Leadholm and Miller (1992) report three categories of variables that quantify disordered language performance. They are mazes, speaking-rate problems, and production errors. Mazes include false starts, reformulations, revisions, repetitions, and filled pauses. These behaviours can be classified under language use. Evidence suggests that children who produce a high frequency of utterances with mazes may be experiencing word-retrieval problems or utterance-formulation deficits. Leadholm and Miller (1992) suggest using the number of utterances with mazes as an indicator of formulation deficits. It is necessary to determine the number of utterances with mazes to be expected from a typical (normal) group of young EAL speakers in order to distinguish between normal (typical) frequency and high frequency of mazes for this population.

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

Mazes
False starts
Reformulations
Revisions
Repetitions
Filled pauses   (Leadholm & Miller, 1992)

In order to obtain a broad overview of general pragmatic functioning, the following areas will be investigated additionally for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers:

Variety of utterances produced
Discourse devices   (Owens, 2001:363-364)

The aspects of language use suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers are displayed in Figure 4.1.

```
┌─────────────────────────────────────┐
│                 Use                  │
└─────────────────────────────────────┘
     │
     ├──┌─────────────────────────────────────┐
     │  │    Variety of utterances produced   │
     │  └─────────────────────────────────────┘
     │        │
     │        └──┌──────────────────────────────┐
     │           │      Types of utterances     │
     │           └──────────────────────────────┘
     ├──┌─────────────────────────────────────┐
     │  │                Mazes                │
     │  └─────────────────────────────────────┘
     ├──┌─────────────────────────────────────┐
     │  │          Discourse devices          │
     │  └─────────────────────────────────────┘
     │        │
     │        ├──┌──────────────────────────────┐
     │        │  │          Connectives         │
     │        │  └──────────────────────────────┘
     │        └──┌──────────────────────────────┐
     │           │            Ellipsis          │
     │           └──────────────────────────────┘
     ├──┌─────────────────────────────────────┐
     │  │       Communicative functions       │
     │  └─────────────────────────────────────┘
     │        │
     │        ├──┌──────────────────────────────┐
     │        │  │         Interpersonal        │
     │        │  └──────────────────────────────┘
     │        └──┌──────────────────────────────┐
     │           │           Ideational         │
     │           └──────────────────────────────┘
     ├──┌─────────────────────────────────────┐
     │  │         Conversational skills       │
     │  └─────────────────────────────────────┘
     │        │
     │        ├──┌──────────────────────────────┐
     │        │  │      Conversational rules    │
     │        │  └──────────────────────────────┘
     │        ├──┌──────────────────────────────┐
     │        │  │      Repairing breakdowns    │
     │        │  └──────────────────────────────┘
     │        ├──┌──────────────────────────────┐
     │        │  │  Appropriateness of responses│
     │        │  └──────────────────────────────┘
     │        └──┌──────────────────────────────┐
     │           │   Conversational turn-taking │
     │           └──────────────────────────────┘
     └──┌─────────────────────────────────────┐
        │              Narratives             │
        └─────────────────────────────────────┘
             │
             └──┌────────────────────────────────────────┐
                │ High point analysis of personal narratives│
                └────────────────────────────────────────┘
```
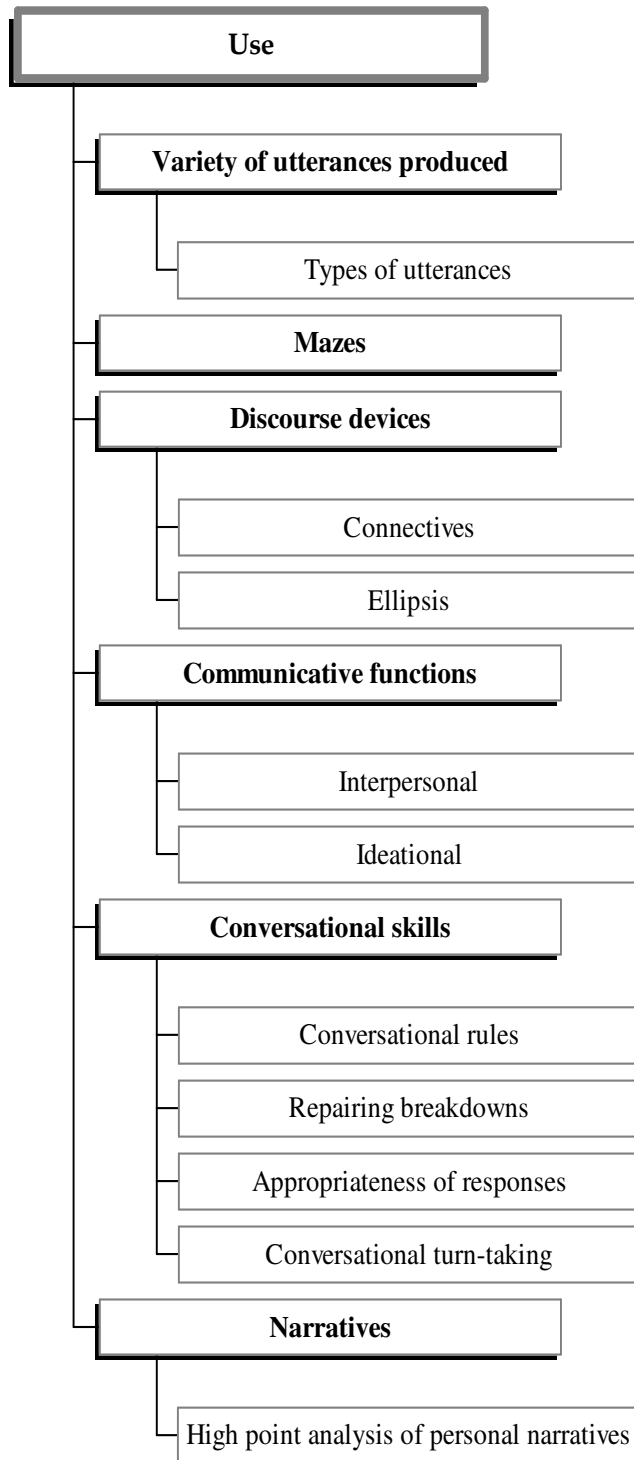
Figure 4.1.   Aspects of language use suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers

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Language content (semantic aspects)

Studies concerning semantic features in the language of children with specific language impairment over the past two to three decades have concentrated mainly on the word level. Topics of study include general word-learning abilities, 'fast mapping', word processing, propositional complexity, semantic networks, and vocabulary diversity (Johnston, Miller & Tallal, 2001:350).

Children with language impairment have been shown to achieve consistently lower than typically developing children in learning new words, and they are also less able to retain newly acquired vocabulary (Watkins & DeThorne, 2000:236). They therefore demonstrate smaller vocabularies than their typically developing peers. Children from low resource backgrounds, however, also exhibit smaller vocabularies than their peers, so that assessment of vocabulary learning skills seems to be the appropriate way to distinguish between disadvantage and impairment in this case. This measure was not included in the present study because no widely accepted dynamic procedure is as yet available (Watkins & DeThorne, 2000:241).

Limited research has been conducted on lexical fields, that is, sets of terms with similar content (such as spatial/temporal forms, or quantifiers). Data on lexical fields could help to clarify the nature of the language deficit in specific language impairment (Johnston *et al.*, 2001: 350).

One lexical field that begins to appear in the pre-school years and continues developing into the school years in young children with typical language is the field relating to cognitive states and events. Cognitive states are expressed by verbs or predicates that refer directly or by implication to the knowledge state of the speaker, listener or third party, for example *know, pretend, think, understand* (Johnston *et al*., 2001: 355). These terms are not typically among the first 50 words acquired by young children. Between two and three years of age children begin to use terms such as *feel* and *look* to talk about affective and perceptual experiences, and somewhat later the terms *know, think, remember* emerge to express knowledge states. The meanings of these terms continue to expand and there is

analogous growth in preschoolers' understanding of mental events (Johnston *et al.*, 2001: 350).

When children with SLI were matched to a group of children with normal (typical) language according to mental age, the children with SLI used significantly fewer cognitive state terms (Johnston *et al.*, 2001: 363). Language provides both the tools for representing mental events and the means to understand the thoughts of others. Language impairment, therefore, may affect the child's ability to conceptualise mental states, because it restricts the tools for reflection and analysis (Johnston *et al.*, 2001: 364 – 366). In order to have a point of comparison for determining *low frequency of use* of cognitive state verbs, it is necessary to obtain data on the *typical* frequency of these verbs in the language of EAL pre-schoolers.

Cognitive state verbs form only one aspect of language content, but they serve to illustrate the importance of studying verbs in SLI. It has also been suggested that children with SLI may rely more heavily on General All-Purpose (GAP) verbs than typically developing children. GAP verbs have broad semantic value, phonologically simple forms and high frequency of occurrence. Examples of verbs often used as GAP verbs include *come, do, get, make*, and *want*. Research has not confirmed the suspicion that high frequency of GAP verbs is an indicator of language impairment. Children with SLI have been found to use similar numbers of GAP verbs as other young children (Conti-Ramsden & Jones, 1997). A subjective observation of the language output of young EAL learners indicates apparent over-use of GAP verbs by this population, but no data is available to verify or disprove this view. The typical performance of young EAL learners in this regard needs to be documented as a benchmark.

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

Verbs	
GAP verbs	(Conti-Ramsden & Jones, 1997)
Cognitive state terms	(Johnston, Miller & Tallal, 2001)

In an attempt to discover differential indicators of Specific Language Impairment in children, various researchers have investigated the lexical and morphological characteristics found in the language production of young children with specific language impairment. The main categories that have been studied to date are:

1. Total number of words (TNW) and Total number of different words (TDW) based on complete and intelligible utterances (Friel-Patti, DesBarres & Thibodeaux, 2001).

2. **Total number of lexical verbs used (TNV) and Total number of different lexical verbs used (TDV)**

3. Noun use: number of nouns compared to TDW

Number of different words (TDW) and total number of words (TNW) are both regarded as excellent indicators of developmental progress (Miller, 1991). TDW is a measure of semantic diversity, whereas TNW is a more specific index of language proficiency. The TNW index is also a reflection of speaking rate and utterance formulation ability (Leadholm & Miller, 1992). These two measures (total number of words - TNW, number of different words - NDW), along with mean length of utterance (MLU), have been used in the literature in studies of both disordered and non-disordered language, to provide a developmental criterion against which particular language behaviours may be judged as typical or not typical of the specific level of language development.

Children with SLI appear to fall within the normal range in TNW, but for TDW a wider spread than for normal is observed (Conti-Ramsden & Jones, 1997). The implication is that more children who exhibit a language impairment than typically developing children exhibit a limited range of lexical items in their production of language. Children with SLI also consistently have smaller TDW values for 50- and 100-utterance samples than those of typically developing peers (Watkins, Kelly, Harbers, & Hollis, 1995:1349). TDW has been described as a viable clinical measure (Watkins & DeThorne, 2000:240).

While it seems obvious that EAL learners could have fewer lexical items in their English lexicon than English first language (L1) learners, there is no data available on the *typical* characteristics regarding TNW and TDW for the EAL population. A limited TDW might

seem to suggest a language impairment, whereas in fact it could be a typical phenomenon for this population. It will therefore be important to determine the typical spread of TDW for children with EAL.

Children with SLI have been found to use fewer verbs and fewer different verbs than typically developing children (Conti-Ramsden & Jones, 1997). The category *verbs* referred to here does not include auxiliaries or the copula, which are more profitably investigated in a separate analysis. Although the copula functions as main verb, the functions of the copula are most often treated separately by researchers, following the example of authors like Dixon (1991) and also Crystal, Garman & Fletcher (1989). The data for the *typical EAL population* is therefore required, to serve as point of reference for determining a limited verb usage in this population.

Conti-Ramsden and Jones (1997) also report that children with SLI produce proportionately more nouns, perhaps because they produce fewer verbs. It will be important to obtain a norm for EAL learners in this regard.

The areas for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

Word counts
     TNW and TDW, TTR
     TNV and TDV
     TNN   (Friel-Patti, DesBarres & Thibodeaux, 2001)

The aspects of language content suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers are displayed in Figure 4.2.

```
┌─────────────────┐
│    Content      │
└─────────────────┘
        │
        ├──┌─────────────────┐
        │  │     Verbs       │
        │  └─────────────────┘
        │          │
        │          ├──┌─────────────────────┐
        │          │  │    GAP verbs        │
        │          │  └─────────────────────┘
        │          └──┌─────────────────────┐
        │             │ Cognitive state terms│
        │             └─────────────────────┘
        └──┌─────────────────┐
           │  Word counts    │
           └─────────────────┘
                   │
                   ├──┌─────────────────────┐
                   │  │  TNW and TDW, TTR   │
                   │  └─────────────────────┘
                   ├──┌─────────────────────┐
                   │  │   TNV and TDV       │
                   │  └─────────────────────┘
                   └──┌─────────────────────┐
                      │       TNN           │
                      └─────────────────────┘
```
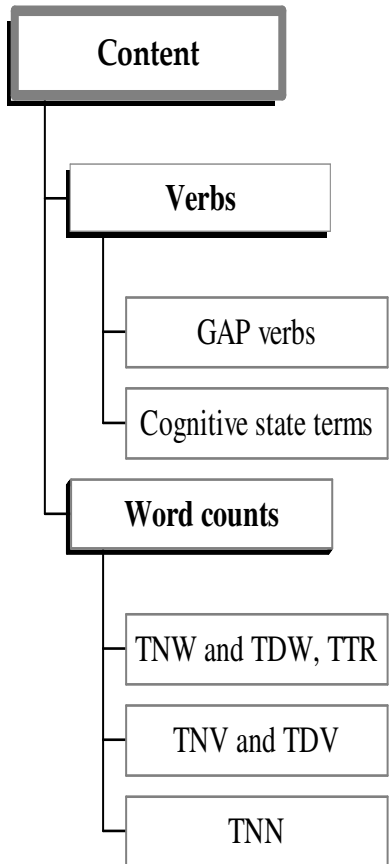
Figure 4.2. Aspects of language content suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers

Language form (syntax and morphology)

A measure that is often used to describe level of language development, and to make comparisons between children with typical development and children with language impairment, is mean length of utterance (MLU) calculated in morphemes, because it has been found to correlate with age. Mean length of utterance in morphemes is regarded as a measure of syntactic development. The mean length of utterance (MLU) is suggested as a "simple index of grammatical growth" (Brown, 1973, in Sokolov & Snow, 1994:28), because each new morphological or syntactic structure the child demonstrates (at least in the early stages of development) increases utterance length. Examples of such additions resulting in longer utterances are articles ("a", "the"), noun and verb inflections, negatives, auxiliaries, modals, conjunctions, prepositions, and relative clauses (Pan, 1994:28). Miller and Chapman (1981) confirmed the stability of MLU and its correlation to age for children

with normal language development, and Klee, Schaffer, May, Membrino, and Mougey (1989) did the same for children with both normal and disordered language development. MLU appears to be a useful measure, therefore, in both typical and clinical populations.

MLU ceases to be a good index of complexity beyond MLU=4.0, partly because increased syntactic complexity does not continue to reveal itself in longer utterances (Pan, 1994:28). However, MLU might prove to be a useful measure in young EAL speakers who do not demonstrate much syntactic sophistication.

As noted above, MLU is usually calculated in morphemes. This suggests a certain measure of linguistic confidence on the part of the investigator. Since the aim of this research is to produce an instrument that can be utilised by pre-school teachers, who may not all be adept in identifying morphemes, it was considered appropriate to investigate the possible utility of a MLU calculated in words as well as in morphemes.

A profile of typical language behaviour exhibited by EAL pre-schoolers would therefore include:

Mean Length of Utterance (MLU)   (Klee, Schaffer, May, Membrino, & Mougey, 1989)

Many accounts of the essence of specific language impairment focus on explaining the excessive difficulty individuals with the disorder have learning grammatical morphemes (Nelson, 1998: 103). Some researchers argue that the grammatical knowledge of children with SLI is qualitatively different from that of normally developing children and adults, while others explain the impairment in terms of processing resources. The so-called "surface hypothesis" was described by Leonard (1994), who cited cross-linguistic data to show that children with SLI have more difficulty processing and developing linguistic rules related to grammatical morphemes because of the surface characteristics of the input data. This hypothesis maintains that children have difficulty learning how to use grammatical morphemes, which are transient, unstressed, and difficult to perceive, because of processing capacity limitations but an otherwise intact language-learning mechanism. Further research, however, appears to be disproving the adequacy of this hypothesis (Leonard, Deevy, Miller, Rauf, Charest, & Kurtz, 2003).

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A related view proposes that purely syntactic (structural) operations may involve fewer resources than those involving integration of some specific contextual (discourse related) information (Avrutin, Haverkort & Van Hout, 2001:271). Some researchers, therefore, have paid closer attention to the syntax-discourse interface, both in linguistics and in psycholinguistics (for example Grodzinsky & Reinhart, 1993; Avrutin, 1999). Because language (including, then, syntax) is always used by young children in a discourse situation, it seems appropriate to investigate the additional burden placed on language processing when the information from the discourse setting has to be processed at the same time. Here the two dimensions of form and use cannot be described separately. Researchers are now beginning to pursue this line of research in the clinical setting with young children with SLI (for example, Bastiaanse & Bol, 2001).

A further set of theories is based on an "underlying grammar" or "missing feature" hypothesis. They propose that certain features of the innately predisposed grammatical learning system are missing (for example, Rice & Wexler, 1996). This view is based on observations that children with specific language impairments have more frequent difficulty with verb inflections compared to noun inflections such as plural inflections, suggesting that they remain in a developmental period of "extended optional infinitive" (Nelson 1998: 103) in which verbs need no inflection.

Morphology limitations, particularly those that pertain to finite-verb morphology, continue into the school years for many children with SLI (Leonard, Miller & Gerber, 1999:679). Various authors (for example Marchman & Bates, 1994; Conti-Ramsden & Jones, 1997) propose that key milestones in the use of grammatical morphemes occur once a critical mass of words has been acquired. The term "critical mass" is used by authors such as Marchman and Bates (1994), Conti-Ramsden and Jones (1997), and Leonard, Miller and Gerber (1999). A certain (unspecified) number of lexical items in a certain class have to be acquired before certain key milestones in the grammatical morpheme use for that specific lexical class (for example, verbs) is acquired in children who develop language typically. In children with SLI, grammatical morpheme use may continue to lag behind even when the critical mass has been acquired.

In the early language development of children who acquire English as first language, the development of the verb structure plays a prominent role. Evidence of this may be seen in the fact that nine out of the 14 morphemes regarded as definitive for the first stages of language development since their description by Brown in 1973, refer to verb structures (Owens, 2004:200). From a clinical perspective, verb morphology appears to be an area of particular difficulty for children for whom language acquisition poses a challenge of any kind. These challenges may relate to language impairment or to factors that impact on language acquisition, such as multilingualism.

Analysis of verb phrase construction and inflected morphology has been identified as a useful measure for identifying 3 ½ - to 6-year-olds with SLI (Bedore & Leonard, 1998). Children with SLI, unlike typically developing children, often use uninflected verb forms (i.e. bare stems) when inflected verb forms are required. However, they use the irregular past correctly (Conti-Ramsden & Jones, 1997), which suggests that these irregular forms may be acquired as individual vocabulary items unrelated to the morphology of the particular verbs. Children with language impairment who do exhibit more complex verb phrase structures tend to use them less frequently than do children developing typically. (Owens, 2004:201). At a later stage of language development, children with language learning disorders (LLD) often demonstrate difficulties with negative and passive verb constructions (Craig & Washington, 2000; Catts, Fey, Zhang & Tomblin, 2001). Although the passive verb form is usually a later developing form, negative forms of the verb appear relatively early in normal language development, usually before the age of 3 years (Owens, 2001:322), so that difficulties with negative verb constructions are conspicuous in school-age children.

Children who acquire English as a second or additional language also experience difficulties with the verb system of English (Owens, 2004:203). It is interesting to note that, in a list of the most frequent morphological errors of speakers with limited English proficiency in the USA (Owens 2004:197), several references to verb structures occur, namely omission of –ing ending, omission/overgeneralization of regular past –ed, and omission/overgeneralization of the third person –s. A list of the characteristics appearing in the English of South African EAL speakers (Table 4.1: Nxumalo, 1997; Van der Walt,

2001) also contains a number of references to verb structures, including use of "did" or present progressive to indicate past tense, extension/omission of progressive aspect, and omission/inconsistent marking of 3rd person singular in verbs.

Since the verb morphology of pre-school EAL learners may exhibit certain typical characteristics that could be mistaken for indications of language disorder, it was considered necessary to determine the use of all of these verb forms in EAL pre-schoolers in order to prevent a possible misidentification (false positive).

Children with SLI have been found to use grammatical inflections and function words such as determiners less frequently in obligatory contexts than typically developing children with matching MLU (Grela & Leonard, 2000: 1115). Research has also demonstrated that children use noun morphology productively (e.g. overregularising plurals) at an early stage of development (Conti-Ramsden & Windfuhr, 2002:19), which may lead to a relatively low count for grammatically acceptable noun morphology. However, research by Conti-Ramsden and Windfuhr (2002) has shown that noun-related morphology may be a sensitive indicator of SLI in young pre-school aged children. Although children with SLI found noun morphology tasks easier than verb morphology tasks, this group of children achieved only a modest proportion correct in the noun plural tasks. Findings reported by Conti-Ramsden and Windfuhr (2002) from an earlier study support the claim that children with SLI do not, at the pre-school age, necessarily have a fully developed category of noun. These findings suggest that grammatical difficulties in children with SLI may not centre on verbs alone (Conti-Ramsden & Windfuhr, 2002:28). Morphological saturation has been used by some researchers as a developmentally sensitive measure of morphology (Rollins, 1994:382). The term morphological saturation of noun phrase refers to the percentage of noun phrases in which the child correctly uses any morphological element when that element is obligatory. Morphological saturation is not a measure of the child's mastery of particular morphemes, but is used as a developmentally sensitive measure of morphology (Rollins, 1994:382). Rollins (1994) provides the following examples of saturated and unsaturated noun phrases:

> In the utterance *I like cat,* the noun phrase *cat* is unsaturated because English requires an article, a demonstrative pronoun, or a plural marker. Saturated versions of this noun phrase might be *I like the cat, I like that cat,* or *I like cats.* Thus, it is not necessary to know which noun phrase a child intended in order to code the noun phrase as unsaturated
>
> (Rollins, 1994:382).

Morphological saturation of noun phrases could be investigated as a possible measure of morphological development in multilingual EAL pre-schoolers who exhibit some idiosyncratic morphological rules.

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

Morphology
Verb morphology
General
Main verbs
Auxiliary and copula
Negative forms
Passive forms
Noun morphology
Possessive form
Plurals
Morphological saturation
Pronoun morphology
Resumptive pronouns
Gender
Case
Determiners and quantifiers   (Nelson, 1998:103)

Craig, Connor and Washington (2003) point out that language skills are particularly good candidates as early predictors of reading success, since six of the 10 indicators of success or failure in reading identified by Snow, Burns and Griffin (1998) relate to language skills. Positive relationships have been indicated between individual oral language skills and later reading achievement, and children with impairments in oral language demonstrate more frequent and significant problems with reading acquisition (Bishop & Adams, 1992; Catts, 1993; Scarborough, 1989). In their research, they used expressive language samples

collected during a picture description task. The samples were scored for various aspects but in this research only *amounts of complex syntax* positively predicted reading outcomes with statistical significance (Craig, Connor & Washington, 2003). This seems to point to the importance of describing the amount of complex syntax typically found in EAL learners.

Many authors describe characteristics of language impairment with reference to various syntactic structures (Bishop, Bright, James, Bishop & Van der Lely, 2000; Avrutin, Haverkort & Van Hout, 2001:271), whilst others report that research has not been able to pinpoint generic aspects not connected to any specific language (Leonard, Miller & Gerber, 1999:679; Laing & Kamhi, 2003:44). The idiosyncratic nature of the English produced by young EAL learners in South Africa has prompted researchers (for example Nxumalo, 1997) to describe certain aspects of the language spoken in an attempt to provide a picture of the typical English language production of these learners. Characteristics of EAL for bi- and multilingual South Africans described in the literature are provided in Table 2.4 (Chapter 2). It is conceivable, however, that some of these characteristics may coincide with, or may be mistaken for, the language characteristics displayed by children with a language disorder

A further reason for investigating the syntactic structures produced by young EAL speakers is that literature reports the co-occurrence of less mature and more mature syntactic and morphological forms in children with SLI. Since this aspect is regarded as indicative of SLI (for example Leonard, Miller & Gerber, 1999; Owens, 1999:37), it needs to be described for pre-school EAL learners..

The areas to be investigated for potential inclusion in a profile of typical language behaviour exhibited by EAL pre-schoolers would therefore be:

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Syntactic complexity	
Simple sentences	
Compound sentences	
Complex sentences	(Craig, Connor & Washington, 2003)
Syntactic structures	
Clause structures	
Phrase structures	(Crystal, Garman & Fletcher, 1989)

Not all "errors" or non-standard morphosyntactic features will necessarily prevent adequate communication from taking place. In fact, some authors find reason to believe that the stabilization of certain incorrect forms in the interlanguage of second language learners may actually be the result of communicative successes experienced when using such forms (Damico, Oller & Storey, 1983: 386).

The aspects of language form suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers are displayed in Figure 4.3.

```
Form
    │
    ├── Mean length of utterance
    │
    ├── Syntactic complexity
    │
    ├── Syntactic structures
    │       ├── Clause structures
    │       └── Phrase structures
    │
    └── Morphology
            ├── Verb morphology
            │       ├── General
            │       ├── Main verbs
            │       └── Auxiliary and copula
            │
            ├── Noun morphology
            │       ├── Possessive form
            │       ├── Plurals
            │       └── Morphological saturation
            │
            ├── Pronoun morphology
            │       ├── Resumptive pronouns
            │       ├── Gender
            │       └── Case
            │
            └── Determiners and quantifiers
```
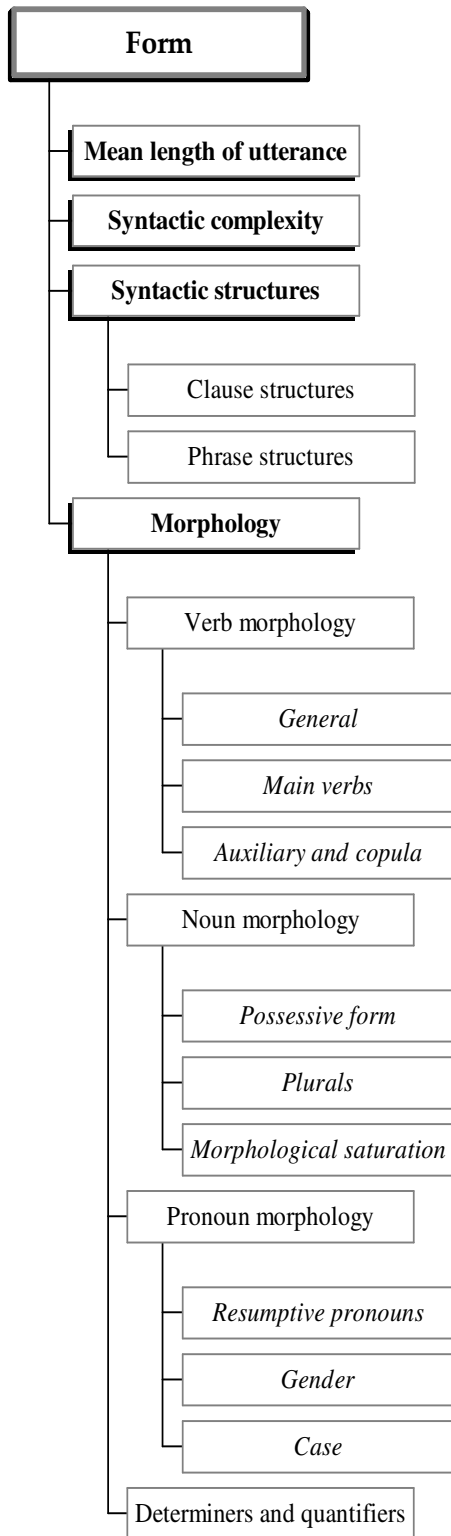
Figure 4.3.   Aspects of language form suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers

4.3.2.   Relevant language characteristics of EAL

When determining which aspects to include in the profile, several considerations need to be taken into account. For the purpose of this research the language characteristics listed in the literature (and discussed in the previous section) as *characteristic of specific language impairment* were regarded as primary determiners of the information that would be useful in a language profile of typical young learners with English as additional language (EAL). The reason for this decision was that inclusion of these characteristics will aid speech-language therapists and teachers in distinguishing between language disorder and language difference. It will be of particular importance to determine which of the characteristics described as indicative of language impairment are, in fact, also typical for this specific population of pre-school learners with English as additional language (EAL). Consequently, the *language characteristics of South African EAL speakers* already described in the literature are provided below as additional guidelines for aspects to be investigated for potential inclusion in a profile designed to distinguish between language difference and language disorder. Research on the language characteristics (excluding phonology) of EAL speakers in South Africa has concentrated on aspects of language form (syntax and morphology). Some suggestions from the international literature concerning language content and language use are included to augment the available data.

 Language content (semantic aspects)

In constructing an instrument to investigate the semantic aspects of language in young EAL speakers, lexical frequency would be an important consideration (Peña, Bedore, & Rappazzo, 2003). Typical lexical frequency counts could provide a framework for comparison between children acquiring English as first language and children with English as additional language. Word frequencies may be influenced by both language structure of the main language (which may favour the use of certain syntactic classes or express relation concepts in other ways than the additional language/s) and socio-cultural factors (which would determine the familiarity with objects and events). Other cultural factors, such as preferred interactional style, may also impact the frequency of concepts or word types acquired by children (Peña *et al.*, 2003).

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In a previous section (4.3.1.2 – language content), lexical frequency counts were suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers, based on literature reporting on word counts in children with SLI.

Language use (pragmatic aspects)

Research by Keshavarz (2001: 187) has demonstrated the development of pragmatic functions from a very early age in both monolingual and bilingual children. The development of pragmatic functions is described as a natural tendency in young children, whether monolingual or bilingual.

Certain pragmatic skills have been reported as lacking in multilingual preschoolers in South Africa. In a survey by Du Plessis and Naudé (2003), teachers in multilingual preschools in the central urban area of Pretoria reported that the following skills were lacking in many of the learners: refraining from interrupting, maintaining a topic, describing plans for the future, expressing personal opinions and giving reasons, providing solutions to problems, and expressing imagination (Du Plessis & Naudé, 2003:14). As in language content, cultural factors may play a role in manifestations of language use (Owens, 1999:104).

Conversational skills and communicative functions were suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers on the grounds of literature concerning SLI.

Language form (syntactic and morphologic aspects)

The idiosyncratic nature of the English produced by young learners with English as additional language (EAL) in South Africa has prompted researchers (for example Nxumalo, 1997) to describe certain of these aspects in an attempt to provide a picture of the typical English language production of these learners. The characteristics described in the literature are provided in Table 2.4 in Chapter Two.

Data in Table 2.4 for children (verb morphology, noun morphology, pronoun morphology, prepositions and determiners/quantifiers) include characteristics observed in more than 50% of the subjects in the research project. Most of these features appeared inconsistently.

Frequency of occurrence was not taken into account. Subjects were pre-schoolers in the Johannesburg area, an urban environment geographically close to the urban area investigated in the present research. Nxumalo (1997) suggests language interference from L1 as explanation for most of the characteristics observed.

Data in Table 2.4 for adults (also verb morphology, noun morphology, pronoun morphology, prepositions and determiners/quantifiers) include features judged by more than 50% of the participants in the research project (Van Der Walt, 2001) as grammatically acceptable forms. Participants were students in Northern Province, North West, and Gauteng. These areas use languages similar to those encountered in central Pretoria, and this data may be relevant, since children may also hear these features if their parents or African L1 teachers speak English. Van Der Walt (2001:5) mentions that   "many of the subjects tested will go into teaching; they will serve as models, and it can be expected that these forms will be perpetuated in schools". It is relevant, therefore, to investigate whether these language features are typical in the English spoken by EAL pre-schoolers.

Morphology was also suggested for inclusion in the profile of typical language behaviour exhibited by EAL pre-schoolers on the grounds of literature concerning SLI.

4.4   Conclusion: Aspects to be included in a language profile for young learners with English as additional language (EAL)

In the preceding sections, various components of the three dimensions (form, content and use – Bloom and Lahey, 1987) of language were identified as potential entries for a language profile for young learners with English as additional language (EAL) to be used in collaborative practice. These suggestions are summarised in Table 4.2 below.

Table 4.2.   **Components selected for investigation from three dimensions of language**

Form	Content	Use
Syntactic complexity	**Verbs**	**Variety of utterances produced**
Syntactic structures	GAP verbs	Types of utterances
Clause structures	Cognitive state terms	**Mazes**
Phrase structures	**Word counts**	**Discourse devices**
Morphology	Total number of words	Connectives
Verb morphology	*TNW and TDW*	Ellipsis
General	*TTR*	**Communicative functions**
Main verbs	Verbs	Interpersonal
Auxiliary and copula	*TNV and TDV*	Ideational
Noun morphology	Nouns	**Conversational skills**
Possessive form	*TNN*	Conversational rules
Plurals		Repairing breakdowns
Morphological saturation		Appropriateness of responses
Pronoun morphology		Conversational turn-taking
Resumptive pronouns		**Narratives**
Gender		High point analysis of personal narratives
Case		
Determiners and quantifiers		
Mean length of utterance		

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In the following chapter, this graphic representation will be utilised to organise the discussion of methodological issues for the research project.

4.5   Summary

This chapter presented the definition of "profile" adopted for the purpose of this study as "a description of language behaviour within a specific time frame and circumstances".   Concerning the phrase *language behaviour*, reasons were put forward why the present study concentrates on language production (expressive language skills), not communication in general, and not language-related skills. The guidelines for selection of information to be included in a profile were provided. The chapter discussed the selection of relevant features from the language characteristics of specific language impairment (SLI), and language characteristics of EAL.   Components selected from the three dimensions of language, namely form, content and use, were summarised in table format.

CHAPTER 5

RESEARCH DESIGN AND METHOD

AIM:

To detail how, on the grounds of ethical principles, the researcher conceptualized the research design, selected participants, collected and processed data, and endeavoured to ensure that the research results would be dependable.

5.1   Introduction

Collaborative teams of speech-language therapists and teachers in multilingual South African pre-schools face a unique challenge, because their situation is complicated by many factors: the diverse language backgrounds of learners, teachers and therapists alike, the under-provision of services, the miscellaneous possibilities relating to teacher training, and lastly but very significantly, the dearth of information concerning criteria for assessment of the young learners' communication behaviour (South African Speech Language and Hearing Association [SASLHA], 2003).

The challenge calls for an energetic response from both members of the team. Teachers need to identify their own needs and the needs of their learners relating specifically to the development of language skills for learning in these multilingual pre-schoolers. Speech-language therapists need to respond with activities designed to provide relevant data, and suggestions for the application of this information in the pre-school setting.

The speech-language therapy profession upholds the concept of research and clinical practice informing each other. Kamhi (1999) has exhorted researchers and clinicians to work together, not only to improve clinical practice through research, but also to make researchers more responsive to the needs of practitioners. The same would hold true for teaching practitioners. According to Kamhi (1999) speech-language clinicians are well qualified to evaluate the effectiveness of new approaches suggested by research findings, and are in fact becoming ever more critical of activities not grounded in research-proven evidence. This tendency is demonstrated in the choice of the theme for the 2005 annual convention of the American Speech Language and

Hearing Association (ASHA), namely *using evidence to support clinical practice* (American Speech-Language-Hearing Association [ASHA], 2005). There have also been some reports in the literature on successful collaborations between clinicians and researchers, specifically between school-based speech-language therapists and university-based researchers (Apel, Brown, Calvert, Paul, & Throneburg, 2002:6)

5.2   Conceptualisation of design and method

The researcher's orientation is optimally determined by the purpose of the study, that purpose then being matched with an approach encompassing the attributes most likely to accomplish it (Lazaraton, 1995). Research by speech-language professionals to provide information for the practice of speech-language therapy and its concomitant collaborative role is no longer regarded as biased research. It is now recognised that there can be no value-free enquiry for the human disciplines (Denzin & Lincoln, 2000:19), and although research is always guided by values not unique to the investigator, it is demanded of researchers in the field of human behaviour to state their orientation and background in order to indicate how their work has been shaped by their previous activities (Denzin & Lincoln, 2000:62, 123).

The current study, conducted specifically with the collaborative teams of speech-language therapists and teachers in multilingual South African pre-schools in mind, adopts a post-modern stance in that it takes into account a multiplicity of perspectives (Weideman, 1999). The study is conducted first of all from a clinical and constructivist perspective.

Clinical refers to the affirmation of the researcher that the clinician (speech-language therapist) is seen to be a part of the support system for the educational practitioner (pre-school teacher). It is important also to state clearly that the clinical perspective ensures that *cultural differences in language behaviour* are differentiated from *language disorder.* This distinction was initially drawn by Taylor (1980), who pointed out that a communication disorder should be interpreted within a specific cultural framework, and that the study of normal and pathological communication should be couched in cultural terms, ensuring a culturally and linguistically valid diagnosis. The

profile of EAL characteristics to be constructed will be aimed at investigating the utility of such an instrument in distinguishing between difference and disorder in a specific urban setting in South Africa.

Constructivist refers to the active construction of a relative reality (De Vos, 1998:240), that is, the reality of the language use of pre-schoolers relative to their school setting and their personal (language) setting. The active role of speech-language therapists in the prevention and therefore early identification of possible language learning disabilities, including reading disabilities (Catts, Fey, Zhang & Tomblin, 2001), places the focus of the study on the pre-school learner.

The proposed research activity is therefore to describe, to make judgments about and to interpret language data from pre-schoolers and to deliver utilisable outcomes for the collaborative practice between clinician and educational practitioner. The findings will not be obtained in a laboratory setting but through the process of typical interaction with participants in their natural setting. The interaction can be described as unobtrusive (Nunan, 1992:56) because no attempt is made to manipulate the performance of the participants in any way other than to provide the necessary setting and materials for eliciting language interaction. These activities appear to reflect some of the characteristics of an ethnographic approach to research in language learning (Nunan, 1992: 56), although this is not a purely ethnographic study adhering to the principles set forth in the literature (Fouché, in De Vos, Strydom, Fouché & Delport, 2002, pp 270 –277; Hammer, 1998). The approach adapted here does provide the justification, however, for the preference of the term *participants* rather than *subjects* to refer to the children who participated in the conversations with the research fieldworker, and also for the description of the research fieldworker as a participant.

Data generated by the research will be *descriptive* in character. The nature of the data, namely language data, as well as the application of the data, namely for practical clinical/educational purposes, together place the research in the domain of applied linguistics. The term "applied linguistics" refers to a broad range of activities which include solving language-related problems, and has been described recently as "a means to help solve specific problems in society" (Tucker, 2005). The researcher will

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strive to propose an "imaginative solution" to a real language problem (Weideman, 1999:94). To this end, the researcher did not specify in advance what would count as significant in the data, but regarded all data as potentially of significance, and therefore those aspects that were *not* found to provide typical characteristics are included in the display and discussion of results. This descriptive study is purely an observational study of existing language behaviours in a circumscribed group of young children. It in no sense purports to put forward any explanation of these behaviours, nor to suggest any language policy for multilingual pre-schools other than a course of action for identifying strategic supportive activities intended to promote optimal language development in a specific setting.

Although the research project displays various characteristics related to qualitative methodology, as described above, a large portion of the data processing will employ descriptive quantitative procedures. Descriptive quantitative research is a research approach that involves the identification of the characteristics of an observed pre-existing phenomenon (Leedy & Ormrod, 2004:179), in this case, a set of existing language characteristics. As specified for this approach, no attempt has been made to change or modify the situation under investigation. This restriction applies equally in the case of an ethnographic attitude, which demonstrates the close relationship between some quantitative and qualitative approaches.

Cresswell (1994: 177-178) suggests the term "dominant-less dominant design" for research where both qualitative and quantitative concepts are utilised. In the case of the present research, the quantitative paradigm dominates overall, but in the discussion some qualitative descriptive procedures were considered appropriate. A *mixed quantitative-qualitative descriptive cross-sectional design* (Leedy & Ormrod, 2004:108) was therefore selected for this study. This non-experimental design allows the researcher to study a single group, which may consist of sub-groups, only once (Fouché & De Vos, in De Vos *et al.*, 2002:140). People in various age groups are typically compared, making it particularly appropriate for looking at developmental trends (Leedy & Ormrod, 2004:108).

A descriptive cross-sectional research design has been described as the most widely used design in the field of social research (De Vaus, 2001: 194). The descriptive nature of the design enables the researcher to compile a profile of the participants in a certain aspect. A profile provides an outline of a subject or a characterisation. The characteristics of the individual participants may then be combined to provide a typical profile of the group, as would demonstrably be appropriate for this study.

This particular design has several advantages as well as disadvantages. The main advantage of a cross-sectional study is that results can be obtained relatively quickly. The design is also cost-effective since one meeting can be scheduled with each participant, and since participants were in one location, several could be seen on one day. The added benefit is that transport costs are limited. The design renders descriptive data, which is necessary to compile an adequate communication profile. Another advantage is that this method is less intrusive in the lives of research participants since data gathering takes place at one time (De Vaus, 2001:194; Leedy & Ormrod, 2004:183). There was no repeated or prolonged disruption of the pre-school schedule and programme for any participant during data collection.

A disadvantage of a descriptive research design is that causation cannot be determined. Therefore, specific characteristics of the children cannot be ascribed to any particular circumstance relating to either the home or the school language setting. However, establishing the cause of particular phenomena in language behaviour is not the purpose of the present research. The focus is to suggest a typical language profile for a group of children in a general pre-school setting.

As there are more advantages attributed to this research design than disadvantages, it seems appropriate for describing in depth the distinctive typical communication functioning of a group of young urban EAL learners. Data collection methods that can be utilized within the boundaries of a descriptive research design are observational assessment of behaviour and a structured or semi-structured interview (Leedy & Ormrod, 2004:179).

A semi-structured face-to-face interview is an interview in which the researcher asks a standard set of questions with one or more individually tailored questions to probe a person's reasoning. For the purpose of this study, a conversation with a young child using a specific set of materials and questions to elicit language denotes a semi-structured interview.

A limitation of the interview as a tool for obtaining information is that participants may not be forthcoming with the relevant information sought by the researcher (De Vos, 1998:370). This was a possible limitation in the present study, as there was no guarantee that the participants displayed all of the language skills they have at their disposal. However, in the case of research on language development, the use of a focused method of elicitation (Nunan, 1992:137) increases the likelihood of obtaining a sample of the language items being investigated. A pre-planned set of elicitation activities were employed in this study.

Nunan (1992:150) points out that there is an inherent bias in the interview-type of elicitation technique for the collection of language data in particular, because of "… the asymmetrical relationship between participants – the interviewer has more power than the interviewee". This asymmetry affected the content as well as the structure of the language used by the interviewee. Although this may be regarded as a limitation of the study, it delivered a true reflection of the language used by the pre-schoolers in the learning context where the adult (teacher) is the main communication partner during classroom activities, especially in the case of learners with relatively little language ability (Owens, 1999).

The language data relevant in the present analysis, recorded at a specific section in time, was described and interpreted, bearing in mind the principle that the context in which behaviour, in this case communication, occurs, has a significant influence on that behaviour (Nelson, 1998:18). The description focused on the elicited communication behaviour of pre-schoolers in a South African multilingual school setting with an adult as communication partner, and the influence of both the nature of the conversation and the adult partner on the behaviour were regarded as significant factors to be accounted for in the interpretation. There was no attempt to specify in

advance what would count as "significant" in the data. All data was regarded as potentially of significance for the purpose of the development of a language profile (Nunan, 1992; Denzin & Lincoln, 2000).

In summary, it was envisaged that the outcome of the mixed quantitative-qualitative descriptive cross-sectional design (Leedy & Ormrod, 2004:108) selected for this study would be the description of a group language profile of EAL learners from a circumscribed multilingual urban South African context.

5.3   Research aims

The **main research aim** of this study was to *determine the feasibility of constructing a language profile for pre-school EAL learners in a circumscribed urban area*, in order to provide speech-language therapists and pre-school teachers in collaborative practice with a dual-purpose tool: an instrument for identifying those learners who are at risk for language impairment/language learning disabilities, and a means of obtaining guidelines for the development of an appropriate programme for facilitating language development. It is important to state at the outset of this discussion that the intention was not to collect the most comprehensive English language sample that could possibly be obtained from the participants. EAL learners obviously also use English (whether expressively or simply receptively) outside of the context of the pre-school, and with a variety of conversation partners. Such a divergent sample would not represent the reality of what a practising teacher-therapist team would typically have available. The purpose was to base the profile on language and communication information resembling the data predictably obtainable in the specified setting.

In order to achieve this aim, the following **objectives** were set:

1. To analyse selected aspects of English language data from a group of EAL pre-school learners in an urban setting in South Africa, relating to form, content and use.
2. To identify typical language behaviours, if any, to be included in a language profile for these specific EAL pre-schoolers.

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3. To identify possible risk indicators for typical EAL learners in this particular context by comparing the constructed/created profile to the indicators for Specific Language Impairment found in the literature.

4. To compile a set of profiled indicators for Specific Language Impairment and Language Learning Disorder in young (pre-school) EAL learners in a specific urban setting in South Africa.

5.4 Ethical principles

Research conducted in the field of human behaviour (including communicative behaviour) is guided by ethics principles that set the keynote for the entire research process, from planning through implementing procedures to reporting and discussing the findings. The principles that directed the researcher's thoughts and actions are:

1. Respect for the dignity and autonomy of all persons

2. Beneficence (actively doing good) and non-malfeasance (doing no wrongful action, causing no harm)

3. Justice (regard for fulfillment of obligations)

(American Psychological Association, 2002; De Vos, 1998:23 – 34; Leedy & Ormrod, 2004:101-104; Weideman, 2005).).

The way in which these principles informed the methods and procedures of the present study is elucidated in the rest of this section.

The principle of respect dictated first of all that all the participants in the research project would participate voluntarily, that they would be assured of anonymity and of the confidentiality with which all data would be treated, and that they could withdraw from the research project at any time if they should wish to. To this end, the practice of obtaining informed consent was followed.

A letter (Appendix B) explaining the aim of the study and requesting permission to conduct the research was sent to the teachers and the parents of the pre-schoolers involved. Care was taken to use layperson terminology, in order to ensure that both teachers and parents would understand the researchers' intentions and the implications

of participation in the project.   The letter through which informed consent was obtained served as a tool to remind the research team of their position and their accountability (Denzin & Lincoln, 2000: 113).   The head of the schools that were approached as well as the teachers declared themselves willing and, in fact, eager to participate.

Consent was obtained from parents through mediation of the teachers, who conveyed the information verbally, based on the written document.   Where so requested by the parents, the information was translated verbally.   The teachers therefore acted as informed interpreters.   This procedure was adopted for the following reasons: some parents are only marginally conversant in English, some are non-readers, and many parents do not personally visit the school premises regularly to bring their children to school or fetch them from school, with the result that the researchers could not contact these parents personally.

The potential pre-school participants in this study were informed of the proposed procedures and provided the choice to participate or not, as they wished (Leedy & Ormrod, 2004:101).   Only those children who assented, by indicating that that they wished to interact with the researcher, were involved.

Furthermore, the participants and their parents, as well as the schools and the teachers, remain anonymous in the report.   In this way confidentiality is ensured.

Lastly, parents and teachers were assured that the results of the research would be disseminated to the participating schools, and thence to the parents, in such a way that they would be freely available to anyone wishing to obtain the information.   Ethical clearance was obtained from the Research Proposal and Ethics Committee of the Faculty of Humanities at the University of Pretoria (Appendix C) for these activities. It was stated clearly in the correspondence with teachers and parents that the results of the research would also be used in constructing screening instruments, support material and other clinical publications.

The principle of beneficence and non-malfeasance was upheld by ensuring that no school, teacher, parent, or pre-schooler incurred any negative/harmful effects from

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either participating or not participating in the research. Care was taken that there would be no risk for the pre-schoolers in participating in this study, as they were not removed from their safe environment or singled out in any negative way. In addition, the ongoing monitoring of the research project by Kommunika (see Appendix A) ensured that the research was relevant for the setting for which it was designed, namely multilingual urban pre-schools in South Africa and specifically the unique South African collaborative teacher-therapist team.

The principle of justice is reflected in the inclusion and exclusion criteria of participants, which are described in section 5.6 below.

Application was made to the Research Proposal and Ethics Committee of the Faculty of Humanities at the University of Pretoria, and ethical clearance was obtained to carry out the research as proposed (see letter in Appendix C).

These procedures were considered highly relevant to the current study because of the inclusion of vulnerable participants. Young children and members of culturally and linguistically diverse groups are potentially exposed to exploitation and therefore need to be protected from malpractice, whether it be intentional or unintentional. For this reason particular care was taken to ensure that ethical principles were upheld.

5.5   Sampling plan

The notion of sampling is one of the most significant in the total research endeavour (De Vos *et al.*, 2002: 197). Samples may be regarded as "population microcosms" (Leedy & Ormrod 2004: 199) and should be carefully planned to present a true picture of the research population. In conducting a descriptive study, the researcher wishes to determine *the nature of how things are* (Leedy & Ormrod 2004: 198). To achieve this end, the researcher needs to perform a process of constant comparison (De Vos *et al.*, 2002: 198) and to ensure that the sample includes cases that illustrate the available variety on variables, especially where smaller numbers are utilised (Denzin & Lincoln, 2000:370, 780).

EAL learners from pre-schools in a circumscribed urban area (Pretoria inner-city area) were participants in this study. These learners come from a variety of language backgrounds so that the data will not reflect any particular language influence. Since it would be neither practicable nor even possible to construct separate profiles for children from each conceivable language background, the multilingual pre-schoolers from one particular pre-school setting are regarded as a single population. The aim is precisely to determine the *common* language characteristics, if any, that are demonstrated by the multilingual EAL pre-schoolers. Such common features have been noted in the literature (Owens, 2001:433) but have not yet, as far as could be determined, been identified for any South African multilingual urban pre-school population. On the other hand, as a result of the multitude of factors impacting on childhood bilingualism or multilingualism (Hoff, 2005:337, 350-352), multilingual language development varies considerably in individual children, even if the specific languages they acquire happen to be the same. The implication, however, remains the same: the aim is to isolate any shared characteristics of language behaviour.

Since the participants were also selected to represent a specific section of the community (urban EAL pre-school learners), the selection process was mainly non-probability purposive sampling, with elements of representative sampling and systematic sampling with a random starting point (De Vos, 1998:198, 195 and 193).

1. The *sampling method* selected for this study was non-probability sampling, since there is no way of guaranteeing that each element of the EAL urban pre-school population will be represented in the sample (Leedy & Ormrod, 2004:206). Non-probability purposive sampling is a sampling method where the subjects are chosen with a particular purpose in mind (Leedy & Ormrod, 2004:206). In this case, the sample was selected according to the judgement of the researcher regarding the typical attributes of the population (De Vos, 1998:198), since the Sunnyside/Pretoria inner-city area was selected as representative of the multilingual population found in urban South Africa. In order to contain the present study within the boundaries of a realistic time frame, participants were selected from one demographically representative school.

2. *Representative sampling* was employed to ensure that the school selected from the Pretoria inner-city area had approximately the characteristics of the population relevant to this research (De Vos, 1998:193). These characteristics were:

3. The age range of the learners, namely, from four to seven years

4. The language profile of the school as a whole, namely, a multilingual profile representing at least 12 languages (compare Table 1.2, Chapter One)

5. The language of learning and teaching, which needed to be English.

6. *Systematic sampling*, which draws a portion of the population in such a way that each member has an equal chance of being selected (De Vos, 1998:193, 195, Fowler 1984:23, Fink 1995: 11), was used to select the individual children from the designated school. Through a process of simple systematic sampling with a random starting point (De Vos 1998:197), every third child on the school class lists was selected. Lists were treated in a continuous manner, to ensure that selection was truly random. In accordance with ethical guidelines, in addition to parental consent these children were offered the choice whether they wished to participate or not, and respected by asking them to give their assent. The procedure was continued until ten children from each of three age groups were enlisted as participants.

5.6   Sample profiles

The participants in this project were the research fieldworker, and the pre-schoolers in a multilingual urban setting.

The present study constitutes part of a long-term research project involving teachers and learners in multilingual pre-schools in the central urban districts of Pretoria, which is situated in the Gauteng province of South Africa. The inner-city area of Pretoria is a multilingual, multicultural geographical community with English as the common language of commerce and civic communication. The Kommunika research team

planned the comprehensive project[1], and the procedures were subsequently carried out by the research assistant as fieldworker.

5.6.1. Criteria for selection of participants

Research fieldworker

The research fieldworker who interacted with the pre-school participants is a qualified female speech-language therapist and audiologist registered with the Professional Board for Speech, Language and Hearing Professions, HPCSA. At the time of data collection, she had several years of experience as speech-language therapist in a multicultural pre-school for children with language and hearing disabilities, as private practitioner with the same population, and as private consultant for foundation phase teachers in multilingual schools in Pretoria. She was therefore considered an appropriate candidate for the task of conversing with EAL pre-schoolers.

The fieldworker was not from the same cultural group as the pre-school participants. The possible influence of this disparity on the language performance of the pre-schoolers was acknowledged, but considered an acceptable risk for two reasons. Firstly, the teachers in the pre-school are for the most part white females (Du Plessis & Naudé, 2003), so that we may presume that the children are accustomed to interacting in this kind of dyad. For the present, given the scarcity of speech-language therapists from diverse cultures in South Africa, cross-cultural communication is probably also widely characteristic of many interactions between speech-language therapists and EAL pre-schoolers. Secondly, during the extensive research in the years following Taylor's (1986) first contributions to sensitise clinicians to the significance of cultural variables in speech-language pathology, it was found that the attitudes and preferences of "middle stage" children (four to six years old) were not overtly affected by the examiner's race, and specifically that linguistic measures such as length of utterance and syntactic complexity were not influenced (Bountress, Bountress & Tonelson,

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[1] The Kommunika project which involved a total of 464 pre-schoolers from 32 classes in various schools (Naudé, Meyer, de Jongh, & Du Plessis, 2000; Du Plessis & Naudé, 2003) is described briefly in Appendix A.

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1988:48, 53). However, the potential influence of cultural disparity cannot be ignored. It will be treated as an inherent characteristic of all the results from this study.

For purposes of clarity and identification, the term "participant" will not be used when referring to the research fieldworker, but only when referring to the pre-school participants.

Pre-school participants

Four criteria were applied in the selection of pre-school participants.

Age

Typically, pre-schools in Pretoria admit children from the age of three up to the age of six years. Since preliminary observations revealed that most three-year-old EAL children produced a very limited range of language behaviour within the designated time limits when participating in the proposed activities, participants in the age group of four to six years were selected for the current study. This age range, sometimes referred to as the "middle stage", is grouped together in language development literature as representing a separate developmental phase (Nelson, 1998; Owens, 2001). Participants were therefore required to be between 4-0 (4 years 0 months) and 6-11 (6 years 11 months) of age.

Geographical area

The participants for the study were required to come from a circumscribed geographical area, the Pretoria inner-city area. Despite the general statement by Pickering *et al*. (1998) that children in South Africa (and in other developing countries) are placed at a high risk for communication delays as a result of factors relating to political, cultural, social, economic, linguistic and environmental conditions, they also point out that it is impossible to equate conditions in all South African contexts in this respect. The focus of the speech-language therapy profession is currently directed at *socially situated communication* (Duchan, 2000), which in its broadest sense involves determining and addressing the needs of individual communities, including geographical communities.

Multilingual setting

Participants were required to live and attend school in a multilingual environment, in accordance with the aim of the study. As illustrated in Table 1.2 (Chapter 1), the Pretoria inner-city area is a multilingual geographical community.

English as language of learning and teaching (LoLT)

All participants were required to be from pre-schools with English as language of learning and teaching, since the language profile will be constructed for English as additional language. English is the language of choice for education for many parents from various language backgrounds in South Africa (Working Group on Values in Education, 2000; Thorpe, 2002).

5.6.2. Procedure for selection of pre-school participants

Pre-schools in the Sunnyside/Pretoria inner-city area were approached in order to determine whether they would be interested in participating in the encompassing Kommunika research project (see Appendix A). All the school principals, speaking on behalf of themselves and their personnel, declared that they were eager to participate and willing to liaise with parents in order to request their permission for the participation of their children.

Letters written in English (Appendix B) were delivered to the schools explaining the nature, aims and proposed outcomes of the research project, as well as the rights of the participants. Since it was essential to ensure that parents had a full understanding of the proposed procedures in order for them to consider whether they wished to grant their consent (Leedy & Ormrod, 2004:101), a strategy was devised in collaboration with the teachers. Letters addressed to the parents, written in English and containing the relevant information, were delivered to the schools, to be distributed and explained to the parents by the teachers in order to ensure informed consent and thereby uphold the ethical principle of respect (Denzin & Lincoln, 2000: 113). This procedure was considered to be the most appropriate way for the following reasons:

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1. English is the language of communication between the schools and the parents. All official communication (letters, forms etc.) is in English. Parents are therefore accustomed to receiving printed communication in English.
2. Teachers usually undertake to ensure that parents as far as possible understand the contents of such communications. They readily undertook to do the same for the research project.
3. Although not all parents are literate in English, they typically make use of the support system (teachers and other parents) available to them to inform themselves of the contents of official communication from the school, and therefore the same route was followed with regard to the letters in connection with the research project.

All the parents who received the letter completed and returned the consent form, indicating that they were willing to have their children participate in the research. The high return rate was attributed to two factors: the teachers' enthusiasm to participate, and the trust placed by parents in the beneficial outcome of the research.

In order to obtain a representative sample of children for the present study, a school representative of the population was selected and a sub-sample of learners was selected through the process described above.

5.6.3. Description of participants

The participants in this study were pre-school children aged between four and seven years. Although the gender of the participants was not taken into account, since there is no indication in the literature that this is a factor of importance in the general language profile of young children, an attempt was made to include an equal number of girls and boys.

The participants were divided into three age groups as follows in accordance with the class grouping in the pre-school:

4-0 years to 4-11 years – Junior group

5-0 years to 5-11 years – Middle group

6-0 years to 6-11 years – Senior group.

(A younger group, the reception class group aged 3-0 to 3-11 years, was not considered for the current research, since many of the children in this group were introduced to English for the first time upon entry into the pre-school and therefore could not be expected to converse in English).

These groups were retained for the purpose of the current research, mainly because one of the potential outcomes of the research could be a set of suggestions for classroom activities aimed at promoting the development of English as additional language (EAL) for these multilingual pre-schoolers.

The participants in the study are depicted in Table 5.1.

Table 5.1.   Characteristics of participants (N= 30)

Age	Gender	N	Home languages*	LoLT
4-0 to 4-11 (Junior group)	M	4	Northern Sotho 2 Unknown 2	English
	F	6	Northern Sotho 2 Setswana 2 Zulu 1 Xitsonga 1	
		Total 10		
5-0 to 5-11 (Middle group)	M	5	Sesotho 2 Northern Sotho 3	English
	F	5	Setswana 2 Sesotho 3	
		Total 10		
6-0 to 6-11 (Senior group)	M	5	Setswana 4 Sesotho 1	English
	F	5	Sesotho 2 Zulu 1 IsiNdebele 1 Setswana 1 Northern Sotho 1	
		Total 10		

*The languages listed here include only the main language for each participant.

The fact that English is the language of learning and teaching in the pre-school implies that all the participants have English as additional language (EAL). The home languages of the participants are diverse, and many of them are from multilingual homes. In some cases, all the particulars concerning the home languages of a child were unknown to the teachers. Parents sometimes neglect to provide these particulars when they fill out school registration forms, or in many cases forms are filled out by non-family members because parents have low literacy levels. This situation is typical of the geographical area (Du Plessis & Naudé, 2003). For this reason, the sample may be regarded as representative of the multilingual pre-school population of the Pretoria inner-city area.

The number of participants (30) is relatively small, with only 10 children in each age group. The reason for the sample size is feasibility (De Vos *et al*., 2002:199). The comprehensive analyses conducted on the language data would make larger numbers prohibitive. Although smaller sample sizes can prevent excessive sensitivity by only identifying those features that are truly significant (De Vos *et al*., 2002:200), it is acknowledged that this number of participants renders no more than an indication of possible trends in a typical language profile.

5.7   Data collection methods and fieldwork practice

Data was collected in the natural setting for which the results were interpreted (De Vos, 1998: 80), namely the pre-school during the normal daily routine. The method of data collection most closely resembles the *interview* method (semi-structured interview), since language samples were collected during structured and semi-structured conversations with the individual learners.

These samples were collected during school hours, in the familiar school setting, using the same stimuli and activities. These stimuli and activities, though derived in part from language tests employed by speech-language therapists, were carefully selected to represent familiar pre-school equipment and events.

5.7.1. Apparatus, materials and data collection procedures

The materials and apparatus required varied according to the individual phases of the research.

Phase 1: Preparation of the language database

In this phase, a language sample was collected from the pre-school participants and subsequently transcribed.   Elicitation materials were required to ensure that all participants had an equal opportunity to demonstrate their language skills, and to ensure that they had the opportunity to demonstrate all the required aspects of language behaviour.

Language output produced by the pre-school participants and also by the research assistant in conversation with the participants was recorded on an audio recorder (National RX-CS 700 2 way-4 speaker system with built-in microphone) and transcribed orthographically by hand.

The range of language behaviours elicited from the participants was wide but by no means comprehensive. Both speech-language therapists and teachers have come to recognise the multiplicity of talents that are needed to demonstrate what may be termed "situationally grounded communicative ability" (Duchan, 2000; Ratner, 2000). From the multitude of assessment possibilities, the researcher had to select those that would best fit the purpose of the study, namely those that would reflect the typical language behaviours a teacher-therapist team would be able to observe within a realistic time frame. The line of reasoning proposed by Conti-Ramsden & Crutchley (1997) was adopted:

> We thought it would be particularly useful to see how much information could be obtained from a single assessment session, such as would be feasible in a clinical setting. This ruled out lengthy procedures involving a number of sessions with each child. We chose breadth rather than depth of assessment… (Conti-Ramsden & Crutchley, 1997:767).

The range of behaviours selected for analysis will be discussed under *Data analysis procedures*. The materials selected in order to obtain a suitably representative sample of language and communication proficiency from the pre-schoolers are provided in Table 5.2.

Table 5.2.   Materials used for eliciting a language and communication sample

Elicitation materials selected	Additional references	Utilization of materials	Justification for selection of materials
Strategies for evaluating and targeting pragmatic behaviours in young children (Creaghead, 1984).	Mattes & Omark, 1984: 80	-To elicit various pragmatic behaviours from the children	- All materials were developed specifically for use with young children. - All measures are widely available to speech-language therapists and teachers, and representative of the types of measures used in assessment of language and communication skills. The materials were not normed in South Africa, but no scores were computed, since the purpose was not to test but to obtain a sample of language behaviour representative of that typically available to a speech-language therapist in this multilingual pre-school setting (Conti-Ramsden & Crutchley, 1997:767). - The equipment required was of the kind with which pre-schoolers are familiar, viz. simple line drawings. The participants were therefore not likely to be so interested in the equipment that it presented an obstacle to eliciting verbal communication. - Although the materials were not developed for the South African context, the people, objects and actions depicted were judged by the research team of Kommunika (Appendix A) to be on the whole not unfamiliar to urban pre-schoolers. - The materials allowed the researcher to obtain samples of spontaneous conversation, connected discourse and specific pragmatic skills, as well as elicited samples of specific syntactic and morphological structures.
Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (rev. ed.) (Kirk, McCarthy & Kirk, 1968).	Crutchley, Botting & Conti-Ramsden, 1997: 269 Nelson, 1998: 333	-To elicit various morphological structures: prepositions, regular plurals, irregular plurals, and degrees of comparison.	
Conversational language sample: Semi-structured spontaneous and elicited conversation: - Picture stimulus: birthday party (MWM Program for Developing Language Abilities, Minskoff, Wiseman & Minskoff, 1972)	Jordaan, 1993:94 Tönsing, 1998:18	-To obtain a sample of language, specifically morphosyntax and conversation skills, as comprehensive as possible in the specified setting. - -To elicit spontaneous conversation	
- Conversational map to invite personal experience narrative: going to the doctor/ my pets	Tönsing, 1998:17; Rollins, McCabe & Bliss, 2000.	-To elicit spontaneous conversation and narrative discourse	
Picture sequence cards from the Kindergarten Language Screening Test, Second Edition (KLST-2) (Gauthier & Madison, 1998).	Nelson, 1998: 333 Jordaan, 1993: 94 Tönsing, 1998:18	-To elicit connected discourse on a specified topic, which makes the interpretation of the children's utterances simpler in cases where there are many idiosyncratic structures	

Phase 2: The language profiles

In order to construct a typical language profile for EAL pre-schoolers, the researcher employed descriptive statistics to facilitate the drawing of conclusions about data for a specific group of individuals, namely pre-school EAL learners, and to generalise the results to a larger population (Huysamen, 1998:4). A statistical tool was required to compute means, medians, and standard deviations. Microsoft Excel (from Microsoft Office 2000 Professional, copyright Microsoft Corporation) was utilized for this purpose.

Phase 3: Profiling Language Learning Disorders

This was a descriptive phase requiring no specific apparatus or materials other than the word processing capacities of Microsoft Word (from Microsoft Office 2000 Professional, copyright Microsoft Corporation).

5.7.2. Data gathering and data editing

As stated previously, the data used for this research consisted of English language samples and communicative behaviour elicited from multilingual pre-schoolers during interaction with an adult research fieldworker. The language and behaviour samples were selected from the data gathered for the Kommunika project (see 5.6). Data collection for the comprehensive Kommunika project was carried out according to the schedule depicted in Figure 5.1.

1

Pre-schools were approached in order to determine whether they would be interested in participating in the research project.

2

Letters containing the same information, addressed to the parents, were delivered to the schools, to be distributed and explained to the parents by the teachers.

3

Class lists were obtained of pre-schoolers whose parents indicated that they wished their children to participate in the research.

4

Pre-schoolers were selected as participants by systematic sampling with a random starting point (De Vos 1998:197).

5

Individual participants were fetched from the classroom and it was explained that participation was voluntary and could be terminated at any point.

6

Interviews were conducted utilizing the materials described in Table 5.2. The recommended sequence of activities for the Kommunika project was:
- First section of Kindergarten Language Screening Test -2 (KLST-2) (Gauthier and Madison, 1998), which includes typical introductory communication such as requesting information about name and age
- Single picture activities of KLST-2 (Gauthier and Madison, 1998), Test for the Auditory Comprehension of Language, Revised (TACL-R) (Carrow-Woolfolk, 1985), and Illinois Test of Psycholinguistic Abilities (ITPA) (Kirk, McCarthy and Kirk, 1968)
- Picture sequence cards from KLST-2 (Gauthier and Madison, 1998)
- Picture stimulus from the "MWM Program" (Minskoff, Wiseman and Minskoff, 1972)
- Personal narrative (Rollins, McCabe and Bliss, 2000; Tönsing, 1998)
- Elicited pragmatic behaviours (Creaghead, 1984).

7

The research fieldworker thanked each participant appropriately and concluded the interview.

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The pre-school participants were conducted back to the classroom.

Figure 5.1.   Data collection for Kommunika project

Data gathered through the TACL-R (Carrow-Woolfolk, 1985) and certain sections of the KLST-2 were not utilised in the present study. The TACL-R is therefore omitted from Table 5.2. In view of the fact that the participants were of pre-school age and that the aim of the interview was to obtain a comprehensive language sample, it was recognised that this sequence might need to be adapted in minor details to suit the interaction styles and the requirements of individual participants. However, the full range of activities was carried out in all interviews.

It was also recognised, as explained previously, that the materials and procedures were not developed to be specifically applicable to the South African context and that EAL pre-schoolers may be subjected to bias if they were to be compared to the population for which these materials and procedures were originally developed. However, no such comparison was carried out and the participants were only described relative to each other, with each age group (4-0 to 4-11, 5-0 to 5-11, 6-0 to 6-11) of ten participants serving as the comparative peer group.

As noted before, the data was collected from the participants using three strategies:

1. Semi-structured spontaneous and elicited conversation with an adult
    a. elicited with the aid of a visual stimulus (single pictures)
    b. structured around a topic involving personal experience.
    c. The procedures followed for the elicited conversation appear in Table below.
2. Communication activities structured according to a specific protocol (Creaghead, 1984) designed to elicit a variety of pragmatic behaviours
    a. communicative intentions/language functions
    b. conversation skills
3. Responses to test items designed to elicit specific expressive language behaviours

a. Kindergarten Language Screening Test – Second Edition (KLST-2) (Gauthier & Madison, 1983). This tool enabled the researcher to obtain a sample of the children's ability to produce discourse on a specified topic, which makes the interpretation of the children's utterances simpler in cases where there are many idiosyncratic syntactic structures.

b. Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (revised edition) (Kirk, McCarthy and Kirk, 1968). This subtest was employed to enable the researcher to elicit various morphological structures.

Table 5.3.   Procedures followed for eliciting conversation.

Conversation elicited and facilitated by *picture stimulus* from the "MWM Program" (Minskoff, Wiseman & Minskoff, 1972)	Conversation elicited and facilitated by the conversational map of *personal narrative prompts* as described by Tönsing (1998:17).
The picture was introduced to each pre-school participant with the phrase: "What's happening here?". From this point onward, the research assistant followed the child's lead in the conversation, making use of questions and prompts like the following when necessary: What's happening here? What's happening on this picture? What do you see on this picture? What else is happening? What's going to happen? Tell me more Tell me about it Why are they all together here? What are they doing at this party? What are they going to do now? These questions and prompts are of the type generally employed by clinicians to avoid single-word responses from young children. If the birthday party picture (Minskoff, Wiseman & Minskoff, 1972) failed to elicit responses, a second picture was used (people walking in the rain).	Example of conversational map used to elicit personal narrative (based on recommendations by McCabe & Rollins, 1994) *1. Doctor.* The other day I had a terrible cold. I was coughing all the time. So I had to go to the doctor *-Have you ever been to the doctor?* *- Tell me about it.* While I was sitting in the waiting room, a little boy called Alex came in with his mom. Alex was crying, and I saw that his thumb was red and swollen. Do you know what had happened? Alex's big brother had stepped on his thumb with his big boot! The two of them had been fighting. *- Do you have a brother or a sister?* *- Can you remember a time when you had a fight with him/her/them?* *- Tell me about it.* The doctor looked at Alex's thumb and then he sent him and his mom off to hospital to have X-rays done of his thumb, to see if the thumb was broken. *-Have you ever had X-rays?/Have you ever been to hospital?* *- Tell me about it.* When Alex and his mom came back from the hospital, the doctor looked at the X-rays. Luckily Alex's thumb was not broken. The doctor only put a big bandage on and gave Alex some pink medicine for the pain. *- Did you ever have to have a bandage/medicine?* *- Tell me about it.* (During the narrative elicitation procedure, the researcher was responsive but avoided leading the child through the narrative. Relatively neutral

	prompts such as "uh huh" or "then what happened?" were used as suggested by Rollins *et al.,* 2000:227). ***Additional map:*** ***Pets***

In addition to the information specified by the individual elicitation tools, each strategy also provided data relating to the following general skills:

    a. responding to various discourse tactics employed by the adult

    b. ability to answer different types of questions.

1. For category (a) (Conversation), the verbal and non-verbal output of both participants (adult and EAL pre-school learner) was transcribed manually, according to the procedures described in Table 5.4 below.
2. For category (b) (Pragmatic behaviours), the specified behaviours indicated on the protocol were noted as *observed* or *not observed.*
3. For category (c) (test items) the elicited responses of the EAL learners were noted, together with any additional comments on communicative behaviours observed by the adult.

These transcripts and notes together were regarded as the source of raw data to be used for analysis and interpretation.

Table 5.4. **Transcription of conversations between research assistant and pre-school participants.**

Transcription procedures	Guidelines followed during transcription	Additional notes
Conversations were recorded on audiotape and transcribed as soon after recording as possible (Owens, 1999:137) but within a period of two weeks. Transcriptions were prepared by the research assistant, with random samples (25% of the total samples) transcribed independently by the researcher. These second transcriptions were then compared to the original transcriptions, to check for discrepancies. Because the language sample was to a large extent defined by the pre-designed structure, the accuracy of the transcripts was expected to be high (Owens, 2001:446). The few discrepancies that did arise, as well as any sections where the research assistant was unsure of a child's utterance, were discussed and resolved (Owens, 2001:446).	1. If the transcribers were not sure whether a word or segment of word was uttered or not, it was not included in the transcription. 2. If unintelligible utterances occurred, they were transcribed as (…) in the text. 3. Incomplete utterances were transcribed as ending in … 4. Pauses within utterance (uninterrupted intonation pattern) were transcribed as "…" (*utterance section 1 … utterance section 2).* 5. Responses that could be classified as deviant on the grounds of either syntax or content were transcribed and analysed as far as possible for syntactic structures and morphology. 6. Use of punctuation marks: if normal statement intonation, end of utterance segment is indicated with full stop (.). Pause for breathing or transition within utterance is indicated by comma (,). Normal question intonation is indicated by question mark (?). 7. "Going to the doctor" conversation was always preceded by the standard introductory story prompt. This introduction was not included in the transcripts and analyses. 8. If the stimulus produced by the research assistant consisted of two separate sentences according to syntax and/or intonation pattern but there was no pause separating the two clauses, the two stimulus sentences were transcribed as one stimulus. The justification for this decision is that no time was allowed for child to respond, consequently the total utterance acted as one stimulus.	1. Stimuli from the research assistant reproduced in the transcription may sometimes seem not to be contingent/ consequential to the child's utterance. This is because of intervening sections of pre-set stimulus narrative, which occurred in the conversation but was not transcribed in the text. If the stimulus consisted of two separate sentences according to syntax and/or intonation pattern, but there was no pause separating the two clauses, the two stimulus sentences were transcribed as one stimulus since no time was allowed for the child to respond in between. 2. The layout of the transcriptions followed in broad outline the format suggested by Crystal, Garman & Fletcher (1989) and also by Owens (1999:139), with the addition of a column for indicating the type of stimulus provided by the adult as well as the type of response offered by the pre-school participant. Examples of the transcriptions appear in Appendix D.

5.8   Data analysis procedures

Analysis of data involves "breaking up" the data into manageable themes, patterns, trends and relationships (Mouton, 2003: 108).

The language data was analysed in order to obtain as much information as possible regarding the patterns and trends in the language profile of the population represented by the pre-school participants included in the survey. Data analysis was conducted in phases according to the research design as explained below.

Phase 1. Preparation of the language database

Aspects of the pre-school participants' *expressive language behaviour* were analysed and described.   Although comprehension and production are both significant for a description of a person's total language behaviour (Crystal, 1979:7ff), comprehension was not included in the present analysis. Comprehension is often very difficult to determine with any measure of certainty, especially during language sampling through conversation. Various factors such as chance inattention, non-verbal clues, and cultural constraints are often noted in clinical practice as aspects that reduce the reliability of judgements concerning language comprehension. It appears that language tests, on the other hand, can more readily test comprehension than production, because a less challenging response is required for the receptive items than for the expressive items. It is acknowledged that limiting the profile to expressive language results in the constraint that what the profile displays is ultimately *language usage* and not *language ability,* which may be more adequately reflected in receptive language performance (Crystal, 1979:7).

The norms as prescribed by the various individual tests designated as elicitation materials were not utilized in this analysis, since the tests were not employed for their original purpose and not all the tests were carried out in the exact prescribed format, in that not all the sections of each instrument were included. In addition, these norms have not been obtained for the South African population and are

therefore not necessarily applicable to the participants in this study (South African Speech Language and Hearing Association [SASLHA] 2003). Even the sections of tests, for example, Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (revised edition), (Kirk, McCarthy & Kirk, 1968), would not have norms that could be utilised in a multilingual South African pre-school context.

The aspects of language included for analysis incorporate aspects of *language form* (excluding phonology), *language content* and *language use* (Bloom & Lahey, 1978) in the analysis (Owens, 2001). The aspect of phonology was not included in the analysis, since a phonemic analysis would require sophisticated electronic equipment for both the recording and analysis. In addition, the literature gives no indication that phonology may be a specific indicator of language disorder in children speaking a variant of English. In a study of multilingual children with specific language impairment it was reported that phonological problems were specifically not observed for this group of children (Crutchley, Botting & Conti-Ramsden, 1997:269; see Table 2.1, Chapter 2). Dialectical differences in the production of the sounds of English have been noted for non-first-language English speakers (Owens, 1999: 106), but is viewed to be part of language *difference* rather than an indication of *deviance.*

Metalinguistic skills were not included, on the grounds of the age of the participants (Owens, 1999: 329). Furthermore, para- and nonlinguistic skills were also excluded because of the practical difficulties in transcribing these aspects.

The language sample obtained from each pre-school participant during the conversation (Table 5.2) and from item 17 (picture sequence cards) of the KLST-2 (Gauthier & Madison, 1998), together with the responses to Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (rev. ed.) (Kirk, McCarthy & Kirk, 1968) was regarded as the *total language sample for analysis* and was analysed to obtain information on the language dimensions of form, content, and use.

Details of the analysis procedures for the separate components of each dimension that were identified as significant in Chapter 4 are set out in Tables 5.5a to 5.5c.

Table 5.5a.   Analysis procedures for the separate components of the three language dimensions – A: Language form

Dimension of language and components selected	Notes	Method of analysis
Language form – general considerations	Language samples were collected from the pre-school participants as described in section 5.7.2. Checklists and elicitation tasks were considered less suitable than language sample analysis for the assessment of language structure (Lund, 2000:267). There is no ideal length for a language sample, since sufficient length varies with the purpose of collection (Owens, 1999:136; Crystal, Garman & Fletcher, 1989:). Since the purpose of this research was to determine whether a typical language profile for pre-school multilingual EAL learners could be obtained from language samples collected within the time frame usually allocated for contact between a speech-language therapist and a pre-schooler, the length of the sample was determined as the *maximum number of utterances that could be obtained within this time frame.* On average 45 minutes was spent with each pre-school participant on all the activities listed in Figure 5.1, with approximately half of the time being taken up by the conversation elicited by the picture (MWM, Minskoff, Wiseman & Minskoff, 1972) and the conversational map (Tönsing, 1998). It is therefore acceptable that the time frame for the conversation was approximately 20 minutes.	FOR "SYNTACTIC STRUCTURES" The transcribed language samples were processed in the following way for each pre-school participant. *Clause level – sentence structure of each clause* 1. Identify clause level structures in each sentence Count frequency of occurrence for each structure *Phrase level – structure of noun and verb phrases* 1. Identify noun phrase structures Identify verb phrase structures Describe irregular phrase structures Count frequency of occurrence for both regular and irregular phrase structures *Word level – morphological structures* 1 Identify morphological structures in noun phrases 2 Identify morphological structures in verb phrases 3 Describe regular and irregular morphological structures

For this analysis, complex sentences were analysed separately. In addition, every component clause was also treated as a separate unit, even though it may have been part of a multiclausal unit. |

Dimension of language and components selected	Notes	Method of analysis
Syntactic complexity	*Syntactic complexity* was defined as the *frequencies of simple, compound and complex sentences* produced by each pre-school participant. Data was obtained from two sources for each participant, namely from the elicited conversation and from narrative elicited by means of the picture sequence cards from the KLST-2 (Gauthier & Madison, 1998). The classification of "and" as coordinating conjunction can be problematic, since children at an early stage of language development tend to over-use "and" as connective (Crystal, 1979:89). For this reason, "and" is often treated separately from	The transcribed language samples were processed for each pre-school participant to determine the frequencies of simple and complex sentences per subject. After the analysis of utterances on sentence level, the processing procedure was as follows: Exclude minor utterances (e.g. social expressions), phrase utterances, and one-word utterances. *Verb* alone was only regarded as a clause if it was a command. Utterances consisting of VX (*verb* + one other word/phrase structure) were classified as clause/sentence. Count the frequency of occurrence for simple sentences Count the frequency of occurrence for each type of compound sentence occurring in the language sample. Count the frequency of occurrence for each type of complex sentence occurring in the language sample. After the number of simple, compound, and complex sentences produced by each participant had been counted, the resulting tables of numbers were scrutinised to determine the number of participants in each age group who produced two or more examples of each sentence type. In the present analysis, when the child's intonation pattern indicated termination of the previous utterance, a clause/sentence starting with "and" was not counted as connected to the previous clause. In such cases, "and" was considered to have a temporal rather than a conjoining function (Owens, 2001: 338). With regard to "and/and then" strings of more than two clauses without intonational division, such a string of clauses connected with

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Dimension of language and components selected	Notes	Method of analysis
	other coordinating conjunctions (e.g. Crystal, Garman & Fletcher, 1989; Owens, 2001:338).	"and/and then" was counted as *one example* of this type of connectivity while the clauses included in the string were not counted separately.
Syntactic structures	*Syntactic structures* refer to units such as phrases, clauses and sentences and the way they are organised (Crystal, 1981:98; Owens, 2001:19). The sentence is the main unit of syntactic organisation, and the approach used in the present analyses operates with two main levels between sentence and word, namely clause level (units that can function on their own) and phrase level (the subject, verb, and object elements of the clause).	Example: "Can eat and drink and drink water and play and swing and do and play with the sand and anything" (participant 13, Middle group). In all other cases the various clauses contained within one sentence were counted separately. Example: "When my mommy is go, né, when she go and at work, né, I said: sister, I want food, and he give me food" (participant 25, Senior group).
Clause structures	The method of syntactic analysis followed in this study is based on the structural grammar implemented by Crystal, Garman and Fletcher (1987). This procedure is used both clinically and for research purposes and has the added advantage that it corresponds sufficiently with traditional grammar approaches to be accessible to most pre-school teachers. This is an important consideration when planning a collaborative approach.	
Phrase structures	**Phrase level structures** Pronouns are included in this section, though analysed separately, since they are used in the place of a noun phrase and are also described under phrase structures in the LARSP (Crystal, Fletcher and Garman, 1989). For the purpose of this analysis, the two phrases *this one* and *that one,* as well as the words *this* and *that* when used in isolation, are counted as demonstrative pronouns.	

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Dimension of language and components selected	Notes	Method of analysis
Morphology *Verb morphology* **Main verbs** **Bare stem** **Tense** **Person** **Auxiliary and copula**	Data for analysis of morphology was obtained from two sources: the conversational language sample elicited as described, and the responses of the pre-school participants to Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (rev. ed.) (Kirk, McCarthy & Kirk, 1968). Where relevant, the two data sources will be distinguished by referring to conversational sample and test sample. Inflections of nouns, verbs and pronouns were noted from both sources and counted for each participant individually. Subsequently, data was grouped for each age group and treated as categorical data.	*Analysis of lexical verbs* The first section of the analysis does not include auxiliaries or the copula, which are investigated in a separate analysis. Although the copula functions as main verb, the functions of the copula are treated separately, following the example of several authors e.g. Conti-Ramsden & Jones, 1997; Dixon, 1991; Crystal, Garman, & Fletcher, 1989. For each participant, the number of correct and incorrect forms produced for the following were counted: Bare stem Irregular past Past tense –ed 3rd singular s progressive –ing past participle (not when used as adjective) negative constructions *Analysis of auxiliary and copula*: All forms of copula *be* and auxiliary *be* were counted. Other auxiliary verbs used were also counted to obtain information on general use of auxiliaries. "Has got" was not noted as auxiliary

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Dimension of language and components selected	Notes	Method of analysis
Noun morphology **Possessive form** **Plurals** **Morphological saturation**	Uninflected forms of nouns were not counted here, only instances of morphological inflection. Morphological saturation (MS) refers to the percentage of noun phrases in which the child correctly uses any morphological element when that element is obligatory. Data for this analysis was obtained from two sources: the conversational language sample and the responses of the pre-school participants to Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (rev. ed.) (Kirk, McCarthy & Kirk, 1968). Where relevant, the two data sources will be distinguished by referring to conversational sample and test sample. Possibilities: Saturated NP – marking compulsory: NP includes whatever marking necessary Saturated NP – marking not compulsory: NP consists of N/Pron Unsaturated NP – unspecified compulsory item omitted Incorrect marking present: e.g. a rabbits, my feets. A further possibility was noted in the conversational samples: Superfluous marking e.g. drinking the juice (no previous reference) (participant 16).	*Noun morphology*: MS is calculated as follows: total *Saturated NP – marking compulsory* and *Unsaturated NP*. Calculate *Saturated NP – marking compulsory* as a percentage of this total. Resumptive pronouns (as in "Me, I don't play") were not counted, and gender confusion in pronouns (as in "My sister, his here is sore") was ignored. Gender confusions were ignored, as well as non-typical determiners. These last two would in any case not influence the saturation count if they were noted as "incorrect". The same goes for incorrect preposition e.g. "in the floor". Consequently, the following were counted for computing morphological saturation: Saturated – marking compulsory Unsaturated – unspecified item omitted. MS was calculated as $$\frac{\text{saturated – marking compulsory}}{\text{Saturated – marking compulsory + unsaturated}}\ \%$$

Dimension of language and components selected	Notes	Method of analysis
Pronoun morphology **Resumptive pronouns** **Gender** **Case**		For the test sample, morphological marking was regarded as compulsory if the test item demanded it, e.g. plural form in "here are two…." Regarding determiners: substitution of "the" for "a" was disregarded, the item was still counted as saturated. When "the" was inserted but not required, as in "they gave me the medicine" with no previous reference, it was regarded as superfluous marking and the item was not counted as saturated. Regarding pronouns: in keeping with other analyses for this study, the following were regarded as pronouns where they were used to represent nouns/refer to persons: another one, this one, that one, these. **Pronoun morphology** *This/this one* and *that/that one* were accepted as pronouns for this analysis on the grounds that these structures act as pronouns in the syntactic composition of the utterances The correctness of male/female forms were not considered for this analysis since morphology, not semantics, is the focus here Uninflected forms of pronouns were not counted.
Determiners and quantifiers		*Determiners and quantifiers* Conversational language samples obtained from the pre-school participants were scanned and the following were counted for each participant: Typical use of *the, a, an, that, this, another, other, some, which, count words*

Dimension of language and components selected	Notes	Method of analysis
		Overuse of determiners *Substitution of determiners* Instances of determiners omitted in obligatory contexts *Nonagreement* *"The" used as filler/substitute for other word type* The data was grouped for each of the three age groups and treated as categorical data.
Mean length of utterance	Two sources of data were implemented in this section, namely from the language sample obtained during conversation, and from the language sample obtained during the picture sequence subtest of the KLST (Gauthier & Madison, 1998).	The coding system devised by the researcher for processing this data is displayed below.

Dimension of language and components selected	Notes	Method of analysis	
		MLU calculated in morphemes *The following items were counted as separate morphemes:* Word stem, that is, without pre- and suffixes, for example the verb stem *go*, noun stem *boy* Verb ending *-ing* Plural *s* except for words like *chips, sweeties, simbas* that were not encountered in the singular form 3rd person *s* ending for verb *gonna* = 2 morphemes, *gone* = 1 morpheme Negative verb ending *n't* Possessive *'s* Contracted *is ('s), am ('m), are ('re)* Contracted *has ('s), have ('ve)* Comparative *–er*, superlative *–est* Adverb form *–ly* (e.g. *nicely* = 2 morphemes) Verb past tense ending *-ed* Irregular plural and past forms are not counted as separate morphemes, for	**MLU calculated in words** *The following procedures were adopted:* All words are counted separately, excluding word repetitions. The contracted form of auxiliary verbs and copula is counted as a separate word (*he's* = 2 words) The negative form of auxiliary verbs is counted as one word (*don't* = 1 word).

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Dimension of language and components selected	Notes	Method of analysis
		example, *children* = 1 morpheme, *went* = 1 morpheme. This is in accordance with regular practice on the grounds that children usually initially acquire these words as individual items and not as examples of plural or past tense rules applied.

Table 5.5b.   Analysis procedures for the separate components of the three language dimensions – B: Language content

Dimension of language and components selected	Notes	Method of analysis
Verbs **GAP verbs**	Although it has also been suggested that children with SLI may rely more heavily on General All-Purpose (GAP) verbs than typically developing children, research has not confirmed this suspicion. Children with SLI have been found to use similar numbers of GAP verbs as other other young children (Conti- Ramsden & Jones, 1997).	GAP verbs were identified as follows: Following TNV count, classify each lexical verb occurrence as GAP or non-GAP. Focus mainly on surface form of verb taking into consideration semantic (general all-purpose verbs), frequency (high freq forms) and phonological (monosyllabic) information.
Cognitive state terms	A subjective observation of the language output of young EAL learners indicates apparent over-use of GAP verbs by this population. Especially since this characteristic may suggest to observers that a language impairment is present, the typical performance of young EAL learners in this regard needs to be documented as benchmark.One lexical field which begins to appear in the pre-school years and continues developing into the school years in young children with typical language, is the field relating to cognitive states and events. Cognitive states are expressed by verbs or predicates that refer directly or by implication to the knowledge state of the speaker, listener or third party, for example *know, pretend, think, understand* (Johnston, Miller & Tallal, 2001: 355). Between two and three years of age children begin to use terms such as *feel* and *look*, and somewhat later the terms *know, think, remember* emerge to express knowledge states. The meanings of these terms continue to expand and there is	Lists of GAPS used by children in other studies include: come, do, get, give, go, got, have, know, look, make, open, play, put, see, take, want. Cognitive state verbs were identified and counted for each participant

Content

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Dimension of language and components selected	Notes	Method of analysis
	analogous growth in preschoolers'	
	understanding of mental events (Johnston, Miller & Tallal, 2001: 350. When children with specific language impairment were matched to a group of children with normal (typical) language according to mental age, the children with SLI used significantly fewer cognitive state terms (Johnston, Miller & Tallal, 2001: 363). Language provides both the tools for representing mental events and the means to understand the thoughts of others. Language impairment, therefore, may affect the child's ability to conceptualise mental states, because it restricts the tools for reflection and analysis (Johnston, Miller & Tallal, 2001: 364 – 366).	
Word counts **Total number of words** TNW and TDW TTR **Verbs**TNV and TDV **Nouns** TNN	Total number of words (TNW) and Total number of different words (TDW). TDW & TNW are both regarded as excellent indicators of developmental progress (Miller, 1991, in Friel-Patti, DesBarres & Thibodeaux 2001). TDW is a measure of semantic diversity, whereas TNW is a more specific index of language proficiency. The TNW index is also a reflection of speaking rate and utterance formulation ability (Leadholm & Miller, 1992). These latter two aspects, however, will not be regarded as indicative in the case of young EAL learners and therefore are not further considered. The comparison of the TNW and TDW counts across the three age	The steps involved in obtaining the TNW, TDW and TTR for each participant are listed below. 1 Count number of words 2 List words alphabetically 3 For each alphabet category, list the entries in alphabetical order to check that no double entries were made 4 Count number of different words 5 Calculate TTR = TDW divided by TNW (Pan, 1994:33). 6 Total number of lexical verbs (TNV) and Total number of different verbs (TDV)

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Dimension of language and components selected	Notes	Method of analysis
	groups, and also across the individual participants in the groups, should be interpreted against the background that the language samples used for the purpose were not strictly standardised as to the length of time allowed for gathering the sample (Owens, 1999:184) as well as the elicitation stimuli. In the present study, the elicitation process was maintained throughout, but the length of time that the pre-schoolers of different ages could be engaged in conversation differed. Consequently, the ratio of TDW to TNW was considered an appropriate additional measure for comparison (Pan, 1994:33; Rollins, 1994:373-407). Although this procedure has been questioned as quantitative measure, because it may vary with language sample size and for different settings (Owens, 1999:184), it allows for descriptive interpretation.	As in the case of the TNW and TDW counts, the steps listed below allowed the researcher to obtain the TNV and TDV for each participant. 1 Count number of verbs (excluding auxiliaries and copula) 2 List verbs alphabetically 3 For each alphabet category, list the entries in alphabetical order to check that no double entries were made 4 Count number of different verbs. Total number of nouns (TNN) The total number of nouns that each pre-school participant produced in the conversational language sample was counted.

Table 5.5c.   Analysis procedures for the separate components of the three language dimensions – C: Language use

Dimension of language and components selected	Notes	Method of analysis
Variety of utterances produced	The responses obtained with the sequence cards of the Kindergarten Language Screening Test (KLST) (Gauthier & Madison, 1998), although producing examples of continuous language production, were not analysed in this section, because a preliminary scrutiny revealed that the use of the visual stimuli (sequence of pictures) seemed to predispose participants to produce one-word or brief phrase responses.	Analysis procedure followed

Note adult's turn (stimulus) as one of the following:

•   Visual stimulus presented together with auditory stimulus

Example: picture of birthday party
The picture of the birthday party was presented as a part of the standard elicitation procedure. Additional pictures were used only in cases where participants produced very little spoken language and seemed more inclined to take part in a discussion focussed on a picture than in a purely verbal discussion with no use of visual stimuli.

• Question/Command

Example: 1) Why are they all together here?

      2) Tell me more
A list of questions and prompts was compiled as part of the standard elicitation procedure. However, additional or alternative questions were utilized as required in order to maintain the flow of conversation or to follow the child's lead in the conversation. The purpose of the elicitation procedure was not to obtain utterances on any specific topic, but to obtain a typical sample of the child's conversation with adults who speak English**.**

• Response to child's utterance (follow-up, encouragement, acknowledgement of speaker)

Example: 1) I wonder what's in there

      2) Mmm-hmm |

Dimension of language and components selected		Notes	Method of analysis
Use	**Types of utterances**		*Note child's turn (response) as one of the following***:** In the examples provided here, the adult's contribution to the conversation is placed between brackets. • **SU = spontaneous initiating utterance** (initiating conversation or new topic) Example: Can I go to the toilet? • **VSR = response to visual stimulus** (only when the child reacted primarily to the visual stimulus. When the visual stimulus was accompanied by a verbal stimulus, the verbal stimulus was regarded as the dominant stimulus and child's response noted accordingly) Example: Is cake for this one • **QR/CR = response to question/ response to command** Example: 1) (Why did you need a plaster?) Because is sore 2) (Tell me about it) I went to the doctor
			• **Cf = confirmation of information requested** Example: (What are they doing here?) They? Eh – she invited them to her party. • **Sf = spontaneous follow-up by child of own response**, *with no pause long enough to indicate that adult turn was expected* Example: And someone is hitting other one. Don't hit other children. • **FR = follow-up response to adult's reaction**

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Dimension of language and components selected	Notes	Method of analysis
		Example: The dog is trying to open the present (I wonder what's in there) Maybe a dog present **• ER = response to encouragement/ interjection/acknowledgement of speaker** Example: Going to cut the cake (uh huh) and eat it These two categories were grouped together as FR/ER mainly because of the low numbers of responses obtained in both categories. **• NR = no response after appropriate wait time by adult** If a respondent provided NR to stimulus items for more than two consecutive turns and the conversation on that topic was then terminated, these further NR turns were not analysed. A maximum of three consecutive NR turns was allowed at any point in the analysis. Count frequency of occurrence for each response type
Mazes	The term maze refers to any false starts, reformulations, revisions, repetitions, and filled pauses occurring in a speaker's utterances during conversational speech or production of narratives. Evidence suggests that children who produce a high frequency of utterances with mazes may be experiencing word-retrieval problems or utterance-formulation deficits. The number of utterances with mazes can be an indicator of this variable (Friel-Patti, DesBarres & Thibodeaux, 2001). It is necessary to determine the number of utterances with mazes to be expected from a typical (normal) group of young EAL speakers in order to distinguish between normal (typical) frequency and high frequency of mazes for this population.	The language data from the *conversational sample* was scanned to identify instances of the following behaviours: false starts, reformulations, revisions, repetitions, and filled pauses. The number of behaviours in each category was counted for each participant and subsequently calculated as a percentage of the total number of utterances for each participant. Mean percentages for all categories were calculated for the three age groups. The data was also treated as *categorical data*. The number of children in each age group who produced utterances with each type of maze was determined, as well as the number of children in each group who produced *more than one* utterance with each type of maze.

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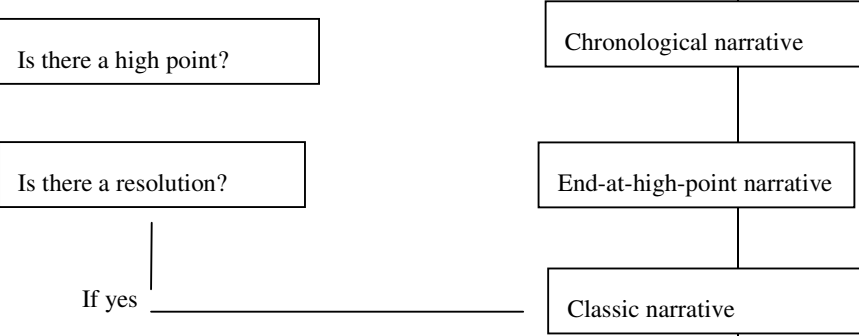
Dimension of language and components selected	Notes	Method of analysis
		Finally, the developmental trends, if any, were determined by comparing the results for the three age groups.
Discourse devices **Connectives** And (then, so) Other **Ellipsis**		1. Utterances to be analysed included only clause level utterances. Phrases, minor constructions (e.g. social expressions) and one word utterances were excluded. 2. V alone was only regarded as a clause if it is a command. 3. Utterances consisting of VX were classified as clause/sentence. 4. "And" as connective: when the intonation pattern indicated termination of the previous utterance, a clause/sentence starting with "and" was not counted as connected. 5. "And/and then" strings: a string of clauses connected with *and/and then* is counted as one example of this type of connectivity*;* the clauses included in the string are not counted separately. Example: "Can eat, and drink, and drink water and play and swing and do and play with the sand and anything" (13) 6. In all other cases the various clauses contained within one sentence are counted separately. Example: "When my mommy is go, né, when she go and at work, né, I said: sister, I want food, and he give me food" (25) Connective words were: Not counted as connective when appearing within a phrase section Counted separately when appearing within an utterance and when used

Dimension of language and components selected	Notes	Method of analysis		
		as initial word of utterance (see transcription of utterances for division decisions). And then, and so = and So then, so when = so Not counted: how many connectives per utterance		
Communicative functions **Intents and devices** **Interpersonal and ideational functions**	Data for this analysis were obtained from two sources: Creaghead's protocol (elicited according to the instructions provided by Creaghead, 1984) and the conversational sample, as advised by Hewitt (2000). All information was also analysed according to Halliday's classification as explained in Keshavarz (2001). Creaghead's protocol lists two types of pragmatic behaviour: • *Communicative intents* • *Conversational devices* Halliday (in Keshavarz, 2001) proposed two main categories of functions: • *Interpersonal* • *Ideational* Interpersonal language defines the child's individuality, as well as social roles and relationships: ideational language represents the child's experience and interpretation of the world around and inside him or her (Keshavarz, 2001:188). Keshavarz (2001:190) found a decline in the relative frequency of *interpersonal functions* and gradually more frequent use of *ideational language* with age in the very first stages of language development. He also demonstrated that young bilingual children do not experience problems with the	Main categories	Subcategories	Examples from Creaghead's (1984) protocol (and other)
		Inter-personal	Instrumental	Request objects
				Request action
			Regulatory	(Directing)
			Interactional	Greeting
				Specifying a topic
				Closing
				Attending to speaker
				Acknowledging speaker
				Answering
			Personal	Making choices
				Expressing feelings
				Denial
		Ideational	Heuristic	Request information
				Request clarification
			Imaginative	Hypothesizing

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Dimension of language and components selected	Notes	Method of analysis		
	expression of instrumental and regulatory (i.e. *interpersonal)* functions, but that they "may need more assistance with the development of functions such as imaginative and informative *[ideational functions]* as these require more linguistic sophistication" (Keshavarz, 2001: 192). In order to obtain guidelines for teachers, the presence of these tendencies in the data for the EAL pre-schoolers was investigated. These two classifications were combined as indicated in the adjacent column.			Predicting
				(Fictionalising)
			Informative	Providing information
				Commenting
				Describing event
				Giving reasons
		All communicative behaviours observed for each pre-school participant were classified according to the categories as stated. Data was then grouped for the three age groups and treated as categorical data.		
Conversational skills **Repairing breakdowns**		The *conversational data* for each participant was scanned and coded for the following behaviours: request for conversational repairs, repairs requested by the adult and provided by the child, and failure of the child to provide repairs requested by the adult. The total number of repair opportunities observed for each participant was also recorded. The data was subsequently treated as categorical data, to determine whether any noteworthy or typical behaviour could be identified.		
Appropriateness of responses	During the conversation that was structured around the picture stimulus (Minskoff, Wiseman & Minskoff, 1972) and the conversational map (Rollins, McCabe & Bliss, 2000; Tönsing, 1998),	The responses elicited from the pre-school participants were classified as: Appropriate		

Dimension of language and components selected	Notes	Method of analysis
	the research assistant elicited conversational interaction from the pre-school participants by means of visual stimuli, topic introductions, questions, and comments. Their responses to questions and comments were examined to obtain an indication of the appropriateness of these responses.	Irrelevant/inappropriate Questionable No response The criteria applied followed the suggestions put forward by Blank, Rose & Berlin (1978). If a respondent provided NR to stimulus items for more than two consecutive turns and the conversation on that topic was then terminated, these NR turns were not analysed Spontaneous utterances and follow-up utterances were excluded from this analysis, since they cannot be classified as *responses* in the sense required here. Only those utterances that were produced in response to a stimulus were included. "No response" is counted on the grounds that it can be regarded as a refusal to respond.
Conversational turn-taking	Data concerning the responsivity to conversational partners typically displayed by EAL pre-schoolers will allow teachers and therapists to identify those children who are less responsive than their peers. The most significant information would pertain to interaction between child and adult, since this would be the context most easily observed by teachers and therapists in the pre-school setting.	An overview of the child's responsivity in conversation with a less familiar English-speaking adult was obtained by compiling a summary of the proportion of conversational turns provided by the adult that was taken up and not taken up by the child during the course of the semi-structured conversation. The proportion of verbal and non-verbal conversational moves made by the child was also investigated. In this section the following categories were included: • *Conversational turns taken/not taken* 1 Count number of conversational turns available to child

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Dimension of language and components selected	Notes	Method of analysis
		2 Count number of turns taken 3 Count number of turns not taken • *Verbal and non-verbal moves* 1. Count number of moves made by child 2. Count number of verbal moves 3. Count number of non-verbal moves
Narratives **Picture sequence narratives** **High point analysis of personal narratives**	Narratives produced by the pre-school participants were of four types: 1. Personal narratives elicited by means of the conversational map proposed by Tönsing (1998) on the subject *Going to the doctor.* 2. Other personal narratives elicited by the adult during the course of the conversation 3. Spontaneous narratives that occurred during the conversation 4. Narratives elicited by means of the picture sequence cards as part of the KLST-2 (Gauthier & Madison, 1998). Not all participants produced all types of narratives. For each participant, the *longest personal narrative produced* was selected for analysis as suggested by Rollins *et al.* (2000:227. Rollins *et al.* (2000) propose a three-step process for narrative assessment.	If the answer to a question on the left hand side is *yes,* proceed to the next question. If the answer to a question is *no,* the narrative structure employed is indicated in the adjacent text box. Are there two past tense events? One-event narrative Are there more than two past tense events? Two-event narrative In the real world is there a logical or causal sequence to these events? Miscellaneous narrative Does the narrator's order of the events mirror the sequence in which the events must have logically occurred? Leap-frog narrative

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Dimension of language and components selected	Notes	Method of analysis
	1. *Eliciting the narrative* Personal event narratives have been found the most appropriate for pre-school and early elementary school children (p 225). The adult-child dyad has in some cases proved to be the most fruitful setting for eliciting classic narratives (Rollins *et al*. 2000:226). A "conversational map" of story prompts (McCabe and Peterson, 1984) was used to elicit personal narratives from the pre-school participants. 2. *Coding the narrative* The elicited and recorded narrative is transcribed with one clause on a line. Each clause of the narrative is the assigned with the appropriate element: orientation, action, evaluation, resolution, and coda. One clause may be multiply coded. Descriptions of these elements are provided in the Table 3. *Scoring the narrative.* A series of questions guide the clinician to identify the type of narrative structures produced by the child	Is there a high point? → Chronological narrative Is there a resolution? → End-at-high-point narrative If yes _____ Classic narrative Figure. Procedure to determine the type of narrative of which a child is capable.
		The steps proposed by Rollins *et al.* (2000) were followed for the analysis of the personal narratives. 1. The narratives were transcribed with one clause to a line. 2. Each clause was assigned with the appropriate element: orientation, action, evaluation, resolution, and coda. 3. A series of questions (see above) was asked to identify the narrative structures of which each participant was capable.

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Dimension of language and components selected	Notes	Method of analysis
		Subsequently, a summary of the narrative structures found in each age group of the pre-school participants was scrutinised in order to determine whether any typical pattern emerged.

The data obtained from each pre-school participant was analysed in this way, and subsequently grouped with the data from the other nine participants in the applicable age group, as indicated in Table 5.1, namely Junior group (aged 4-0 to 4-11), Middle group (aged 5-0 to 5-11), or Senior group (aged 6-0 to 6-11). The data for each group was analysed from a dual perspective. From a quantitative perspective, descriptive statistics (Huysamen, 1998; Steyn, Smit, Du Toit & Strasheim, 1994) were employed in order to obtain information regarding typical language and communicative behaviours for each group. From a qualitative perspective, an adapted version of Cresswell's data analysis spiral (Cresswell, 1998:142-165; Leedy & Ormrod, 2004: 151) was utilised to ensure that all relevant aspects of the language and communication data had been observed and recorded. The adapted data analysis spiral, which encompassed phases 1, 2 and 3, is depicted in Figure 5.2 The repetitive application of this procedure ensured a measure of trustworthiness, as will be discussed under 5.9.
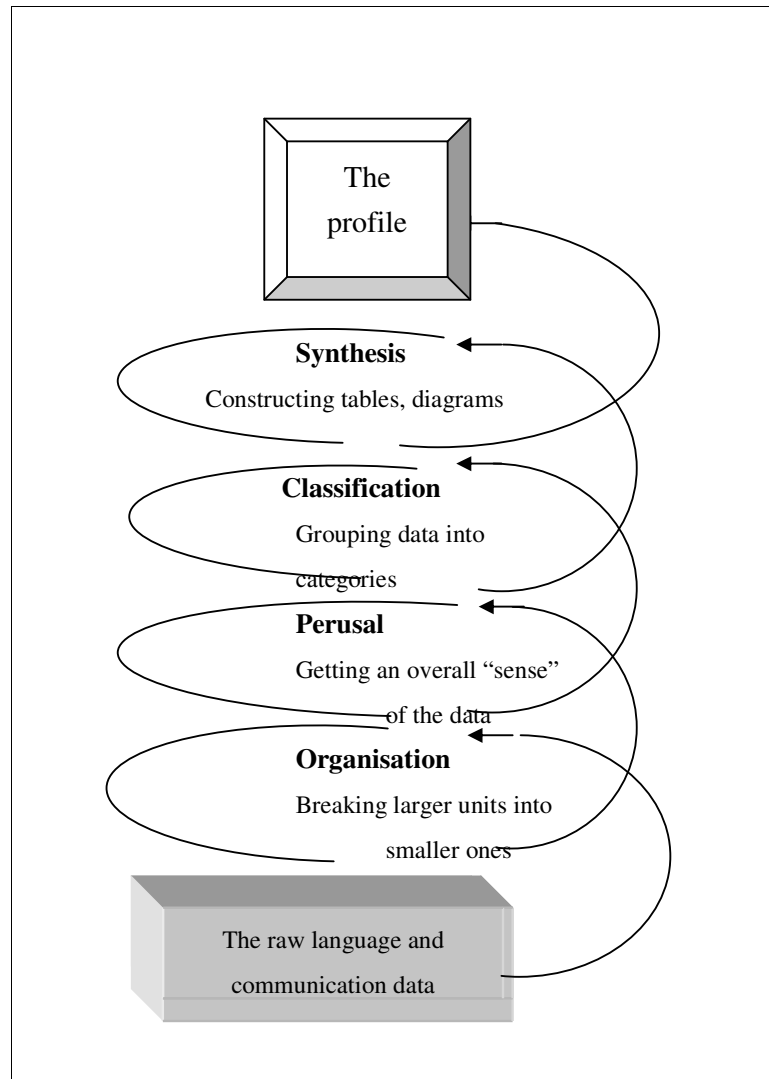
Figure 5.2. Data analysis spiral (adapted from Cresswell, 1998:142-165; Leedy & Ormrod, 2004:151)

Phase 2. The language profile

Language data obtained in phase one was scrutinised to determine trends and patterns. From these regularities the typical structures were identified in order to construct a profile of typical English language behaviour for EAL pre-schoolers.

The data obtained during phase 1 was mainly of two types:

1. *Categorical data*, with ordinal variables. This data described *phenomena that either occurred or did not occur*; for example with reference to complex syntax – did embedded clauses occur? Data analysis in this case involved counting the

number of individuals demonstrating a particular behaviour, as well as the number of times each individual demonstrated the behaviour. Although mean percentage of use per group has been used in other studies to describe the *use* of a specific structure (Johnson, Miller & Tallal, 2001), researchers like Balason and Dollaghan (2002:961) caution against this practice because a relatively small proportion of the subjects in a particular case may contribute to produce a high mean percentage. It is therefore advisable to obtain some indication of the number of participants per group who demonstrate the target behaviour. Schraeder, Quinn, Stockman and Miller (1999:198) regarded an item of communicative behaviour displayed by pre-schoolers as a communicative strength if it was observed at least once. However, since a single occurrence of any behaviour may be attributed to chance, *more than one* example was required in the present study in order to confirm that the individual does indeed demonstrate the behaviour. In accordance with Theakston, Lieven, Pine, and Rowland (2002:790) and also Johnson, Miller and Tallal (2001:360), therefore, children were assumed to be demonstrating a particular behaviour once they had produced two instances of that behaviour. For the purpose of this research, if more than 50% of a group demonstrated more than two instances of any behaviour, it was regarded as noteworthy behaviour for that group; if 80% or more demonstrated such behaviour, it was regarded as typical for that group. In the study by Theakston *et al*. (2002) only those language structures produced by at least 10 out of 11 children (90.9% of subjects) were regarded as sufficiently representative to be included in their analyses. However, if the original number of 12 subjects had been retained in that study, a representation of 10 out of 12 children would render 83.3%, which is close to the cut-off of 80% employed in the present study. Previous studies that examined only the so-called *errors* produced by young EAL speakers (for example Nxumalo, 1997) also reported the percentage of speakers in a group who produced a certain structure, but refrained from identifying noteworthy or typical behaviours. Descriptive statistics offer no norms for or methods of determining variables that will be implemented in categorising data (Ehlers, 2005; Huysamen, 1998:8). It is the task of the researcher to determine the nature of the variable *typical* versus *non-typical behaviour* in a particular group. For this purpose, the following categories were created and are

here stated clearly as values selected according to the discretion of the present researcher:

Category	Percentage of group demonstrating behaviour	Interpretation
1	< 50%	non-presenting/negligible
2	50%-79%	noteworthy
3	80%+	typical

2. *Quantitative data,* with discrete variables. This data described *phenomena that occurred in a certain measure,* for example mean length of utterance, or total number of verbs produced. Quantitative treatments of the data in this case included mean or median where applicable for each age group, standard deviation, and range of typical behaviour regarding the occurrence of specific language characteristics (De Vaus, 2001: 195; Crystal, 1987:90). The range of occurrence regarded as representative of the group was determined by implementing two standard deviations from the mean (Steyn, Smit, Du Toit & Strasheim, 1994: 138). This method could only be applied in the case of a normal distribution, or a distribution approaching a normal configuration. Where the distribution was skewed by a single very low and/or a single very high score, the 10th and 90th percentiles were used to delimit the range of behaviour displayed by 80% of a group of participants (Steyn, Smit, Du Toit & Strasheim, 1994:127).

Examples of corresponding quantitative treatment of similar data in the literature are scarce. In linguistically oriented studies of multilingual children in South Africa, the occurrence of language phenomena is often described qualitatively, without any quantitative indication of typical or non-typical behaviours (for example Stander, 2000). International studies comparing the language and communicative behaviour of children with language impairment on the one hand, to language and communicative behaviour of typically developing children on the other hand, define "typical behaviours" only with reference to *non*-typical behaviours, not according to any pre-specified norms (for example Leonard, Miller & Gerber, 1999; Bastiaanse & Bol, 2001; Johnston, Miller & Tallal, 2001; Conti-Ramsden & Windfuhr, 2002; Leonard,

Deevy, Miller, Rauf, Charest & Kurtz, 2003). The present study is not a comparative study, but an attempt to delineate those aspects of language and communicative behaviour that can be suggested as topics for comparative studies in the specific population under scrutiny. Future studies will have to affirm, or determine anew the accurate typical range of these behaviours.

Phase 3. Profiling language disorders and projected language learning disorders

A predominantly quantitative description of the data together with quantitative notes is provided in order to construct a meaningful language profile.   The results are compared to other results found in the literature as a basis for suggesting indicators for specific language disability in the population (Owens, 1999; Owens, 2001; Craig & Washington, 2000; Crutchley *et al.*, 1997; Catts, 1993; Catts *et al.*, 2001).

5.9   Quality criteria

The value and utility of any research is directly related to the trustworthiness of the study. When quantitative measures are employed, the parameters of trustworthiness are validity and reliability (Leedy & Ormrod, 2004:27; De Vos *et al.,* 2002:166).

Validity refers to the extent to which an empirical measure adequately reflects the concept in question, and the extent to which the concept is measured accurately (De Vos *et al.,* 2002:166). Two types of validity can be described for the present study, namely content validity and construct validity.

Content validity implies that the items of the measurement instrument/s adequately reflect the content of the construct being investigated (De Vos *et al.,* 2002:167). Content validity was ensured by defining the specific construct being studied, and specifying the theoretical content area that it implies. Language was defined as consisting of form, content, and use (Bloom & Lahey, 1978), and the various aspects of each dimension were noted (Figure 1.4 in Chapter 1). The items relevant to the specific content areas were defined in Chapter 4, and representative items of each content area were selected on grounds explained in Chapter 4, relating to specific language impairment (SLI) and characteristics of EAL. The instruments utilised to

elicit the language behaviours that reflect these characteristics are widely accepted by speech-language professionals as valid measurements of the various aspects of the language dimensions of form, content, and use. The tests utilised (ITPA – Kirk *et al.,* 1968, and KLST-2 – Gauthier & Madison, 1998) have proven content validity as reported in the respective manuals.

Construct validity refers to the degree to which an instrument measures the theoretical construct it was intended to measure (Struwig & Stead, 2001:141). The descriptive measures employed in the present research project have all been validated through research reported in the literature, and references have been provided in each section of the discussion.

Reliability is "the consistency with which a measuring instrument yields a certain result when the entity being measured hasn't changed" (Leedy & Ormrod, 2004:29). In the present study, it was considered appropriate to obtain indications of inter-researcher reliability where two researchers were involved, and intra-researcher reliability where one researcher was involved. As described in section 5.8 (Data analysis - *phase 2*), the language samples elicited from pre-school participants were transcribed by hand. The transcribed language samples were analysed for syntactic structure by the research assistant. The researcher for the present study analysed 25% of the total transcripts, after which the two sets of analyses were compared to determine the measure of agreement between the analysers for the purpose of assuring validity. The method used to determine inter-researcher agreement is described in Appendix E. A total inter-researcher agreement of 98.1% was obtained.

Intra-analyser accuracy was monitored for analyses other than the syntactic analysis (word counts, conversational skill analysis, MLU, morphology, content aspects of verbs, variety of utterances produced, mazes, communicative functions, and high point analysis of personal narratives), which were conducted by one researcher (in this case not the field worker but the main researcher) only. All of these analyses were repeated at intervals of 6 months, and revised where any discrepancies occurred (3 revisions in all).

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Nunan (1992) proposes that certain questions be asked regarding the validity and reliability of research concerning language. These questions are addressed in Table 5.6.

Table 5.6. **Questions concerning reliability and validity of language-related research (Nunan, 1992: 61-63)**

Measure of trustworthiness	Questions	Responses relating to current study
Internal reliability	Does the research utilize low inference descriptors?	Descriptors are observable linguistic phenomena and measurable behaviours
	Does the research invite peer examination or cross-site corroboration?	Sufficient primary data will be included in the report to be used for reanalysis by other researchers
External reliability	Does the researcher provide a detailed description of subjects?	Details of age range, demographic particulars and educational setting are provided
	Does the researcher provide a detailed description of the context and conditions under which the research was carried out?	Details are provided
	Are constructs and premises explicitly defined?	Constructs and premises are defined
	Are data collection and analysis methods presented in detail?	Yes, in tables and appendices
Internal validity	Is there bias in the selection of informants?	Selection procedures are specific but not biased
External validity	Are some phenomena unique to a particular group or site and therefore non-comparable?	Comparison to groups in other socio-cultural environments (e.g. rural, or mainly unilingual) in the current study is not envisaged
	Are outcomes due in part to the presence of the researcher?	The presence of the researcher is a necessary influence in order to obtain a sample of communication performance in the setting as described

The answers provided in Table 5.6 summarise the general considerations relating to quality criteria for this study.

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5.10   Conclusion

The quantitative descriptive research design that was selected, together with the considerations deriving from the clinical and constructivist perspective, provided an appropriate framework for planning this research project. The data collection methods and fieldwork practice presented some challenges on account of both the complexity of the data to be collected and the characteristics of the context for data collection. However, the detailed account of all aspects of the data collection procedures allowed the researcher to plan for both of these potential problem areas.

5.11   Summary

This chapter described the research design and the methodology that was used to construct a profile of typical English language behaviour in a group of South African EAL pre-school learners. The objectives for realising the aims were detailed, as well as the phases of the study. Selection of participants, with reference to both the research fieldworker and the pre-school participants, as well as data collection and data processing were discussed.

CHAPTER 6

RESULTS AND DISCUSSION: LANGUAGE FORM

AIM:
To present and discuss the aspects of language form identified in the language behaviour of the pre-school participants, to distinguish the aspects of language form that appeared typically in the language production of the three age groups, and to evaluate the potential utility of this information by considering the results to be carried over to the *Profile*.

6.1. General introduction: The language database for the language profile of multilingual EAL pre-schoolers

A profile, as its name suggests, is no more than a first approximation to an accurate description; but it does at least imply that the salient, identifying features of a problem area have been isolated.
(Crystal, 1981:22)

The goal of this and the following chapters is to present the results of the various language analyses performed on the language data collected from multilingual EAL pre-school learners in a specified urban setting, and to indicate to what extent these results can be utilised to construct profiles of typical language behaviour and of risk for language impairment in the case of these learners. The purpose of the set of profiles is to assist the collaborative therapist-teacher team in selecting appropriate language enrichment activities for typical EAL pre-school learners, and also to promote early intervention/prevention by allowing the therapist to distinguish between typical (due to language difference) and atypical (due to language disorder) language phenomena in multilingual EAL pre-school learners.

The literature provides examples of useful profiles derived from data collected from relatively small numbers of linguistically and culturally diverse pre-school populations (Stockman, 1996, in Schraeder, Quinn, Stockman, & Miller, 1999). It was considered apposite, therefore, to construct a profile of these typical language characteristics for a *circumscribed group* of thirty multilingual EAL pre-schoolers, to compare this profile to the characteristics usually associated with language disorders in children, and then to determine which characteristics, if any, can be utilised with any measure of

assurance to identify those EAL learners who truly present with an innate language disorder.

The results are presented according to the four phases of the research described in Chapter 5, namely:

1. Preparation of the language database
2. Construction of the language profile
3. Description of typical EAL learners
4. Profiling language disorders in EAL learners.

These phases were differentiated methodologically, and were not necessarily temporally sequential. Figure 6.1 relates these research phases to the research objectives as stated in Chapter 4. The first phase, which comprised the preparation of the language database, is discussed according to the language dimensions of form (Chapter 6), content (Chapter 7), and use (Chapter 8), and specifically those aspects of each dimension identified in Chapter 4.

As the volume of the raw data obtained from the semi-structured conversations between the research assistant and the multilingual pre-schoolers precluded inclusion in the text, the results presented in Chapters 6 through 8 will be the processed forms of the data. Raw data is provided in the form of spreadsheets on CD Rom included in the back cover.

The results are presented in tables and graphs, since graphical representations can often convey more information and be more intuitively comprehensible than statistical measures (De Vaus, 2001:195). The results from the language analysis of the pre-school participants will be presented for the three age groups separately and, where appropriate, for the group of participants as a whole. The main purpose of the representations will be to determine whether a typical spread or phenomenon could be identified. Where a table has the entry *No representative range could be determined*, the distribution of scores obtained for that particular group is scattered throughout the range of scores, with no grouping in any specific area. The resulting standard deviation, therefore, is too large to permit the formula *mean/median +/-2SD* to be

used. Where the distribution was skewed by a single very low and/or a single very high score, the 10th and 90th percentiles were used to delimit the range of behaviour displayed by 80% of a group of participants (Steyn, Smit, Du Toit & Strasheim, 1994:127).

The extensive nature of the information presented in this and the following two chapters requires some orienting reference to the way in which data was organised. *Description of the results* are followed by a *discussion* at the end of each subsection, and a subsequent indication of the information to be carried forward to the language profile. The discussion is intended to relate the results obtained to associated information in the literature. Due to the scope of the investigation, the discussion will of necessity be relatively brief, but every attempt will be made to ensure inclusion of all pertinent aspects that could contribute to the depth of the argument. The *typical language profile for pre-school EAL learners in a circumscribed urban area* will be denoted "the *Profile*" in the rest of the discussion. Two versions of the *Profile* will subsequently be presented in Chapter 9:

1. The complete profile listing all the typical behaviours that were identified and also additional notes on behaviours that are relevant for speech-language therapists.
2. The reduced profile listing the typical behaviours that are likely to be most relevant for teachers in the designated multilingual pre-school setting.

In the *Profile for speech-language therapists* the results will be presented in a coded form for brevity. In the *Profile for teachers* the typical behaviours will be presented in a descriptive fashion utilising terms such as *"can produce …"*, *"demonstrates …"*.

Following the two typical profiles, Chapter 10 will provide a proposed *risk profile* of indicators for specific language disorders (SLI) in multilingual pre-schoolers in the circumscribed urban area selected for the current research. The similarities and differences between this risk profile and the indicators of SLI, as described in the literature, will be highlighted.

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Various authors and researchers who study language provide different definitions of terms or different emphases in their definitions (Owens, 2001:3). A precondition for any meaningful discussion of language behaviours, therefore, is an agreement on the terminology to be used. A glossary of the terms employed in this analysis and discussion of the various aspects of language form, language content, and language use are consequently provided in Appendix F.

Figure 6.1 is a schematic representation of the presentation and discussion of the results. The various methodological phases are related to the stated objectives of the research, and an indication is provided of the respective chapter where each aspect is to be put forward.

| Phase | Research objective/s | Presentation | Chapter/s |

1. Preparation of the language database

1. To analyse selected aspects of language data from EAL pre-school learners

Aspects of:

Language form

Language content

Language use

Chapter six

Chapter seven

Chapter eight

2. The language profiles

2. To identify typical language behaviours to be included in a language profile

The two forms of the profile: **Comprehensive profile Essential profile**

Chapter nine

3. Profiling Language/ Language Learning Disorders

3. To identify possible risk indicators for Specific Language Impairment

4. To compile a set of profiled indicators for Specific Language Impairment in young (pre-school) EAL learners

Profile of risk indicators

Chapter ten

Figure 6.1. Presentation of results and discussion

Phase 1 of the research process, the preparation of the language database, was related to objective 1: to analyse selected aspects of language data from a group of EAL pre-school learners in an urban setting in South Africa, relating to form, content and use.

The outcome to be achieved in this phase was the identification of information to be carried forward to the *Profile*.

The language behaviour displayed by multilingual EAL pre-schoolers in a structured interview with an adult, in this case the research fieldworker, is discussed under three headings: *language form* (Chapter 6), *language content* (Chapter 7) and *language use* (Chapter 8). The results of the respective language analyses were utilised to determine whether any typical language behaviours could be identified for the three groups of pre-school participants. The labels *Junior group, Middle group*, and *Senior group* are used to distinguish these groups. The age range of each group is indicated below:

```
4 years 0 months to 4years 11 months    =    Junior group (N=10)
5 years 0 months to 5 years 11 months    =    Middle group (N=10)
6 years 0 months to 6 years 11 months    =    Senior group.(N=10)
```

> **Language form (syntax and morphology) produced by the pre-school participants**

6.2. Introduction: Language form

The aspects of the language dimension of *form* that were identified in Chapter 4 as significant on account of their relationship to either language impairment or EAL, were investigated as they appeared in the language behaviour of the pre-school participants. The results are presented below, together with a brief discussion of each set of results.

The presentation and discussion is optimally viewed from the perspective already stated in the definition of language (Chapter 1), that *the subsystems of language may be described separately, but they never function separately. They are as closely intertwined as the strands in a braid, forming one functional whole*. This perspective is cogently expounded by Rollins (1994:373). The implication for the current chapter and those to follow, is that although some attempt has been made to separate the "strands" of language into form, content, and use, the researcher remains patently aware of the interconnectedness of these dimensions and of their influence on each other. The researcher also acknowledges that it is not always a simple matter to

distinguish between aspects of form and of content in the case of structures such as verb phrases and pronouns. The primary intention of the research should be stated clearly once again: to *describe* the language behaviours observed in pre-school EAL learners, rather than to *explain the presence of* these behaviours from a linguistic, socio-cultural, or clinical point of view.

The aspects of language form included in the following description are those listed in Chapter 5, namely syntactic complexity, syntactic structures, morphology, and mean length of utterance.

6.3.   Syntactic complexity

For the purpose of this discussion, the term *conversation sample* will be used to refer to the language sample from the elicited conversation, and the term *test sample* will refer to the language sample obtained by means of the picture cards from the KLST-2 (Gauthier & Madison, 1998).

The results for syntactic complexity are presented in Table 6.1.

Table 6.1.   Number of participants from each age group who produced two or more examples of each sentence type (data from two language samples)

From test sample - number of participants producing identified structure more than once										
Group (n=10 for each group)	Simple sentence	Connected through intonation	And	(And) then	But	Because	If	(So) that	Object clause	Adverbial clause
Junior	6									
Middle	10		1							
Senior	9		4		1					
From conversation sample – number of participants producing identified structure more than once										
Group (n=10 for each group)	Simple sentence	Connected through intonation	And	(And) then	But	Because	If	(So) that	Object clause	Adverbial clause
Junior	9		1						1	
Middle	10								1	1
Senior	10	2	7	4	1			1	5	2

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The connectives *because* and *if* were not used more than once by any participant. Moreover, none of the participants produced two or more examples of complement clause or post-modification clause, although other examples of subordinate clauses were produced, as illustrated in Table 6.1.

The only sentence type truly *typical* of these EAL pre-schoolers from the age of 4-0 years to the age of 6-11 years, was the simple sentence. The conversation sample rendered more information than the test sample, so that it appears a more useful sample for the purpose of determining the amount of complex syntax used by the pre-school participants. From the conversation sample two more examples of *noteworthy* sentence types became apparent, namely compound sentences joined by "and" and complex sentences with an embedded object clause.

When these observations were compared to the data for typically developing English-speaking children in the USA (Owens, 2001:326-327), it was evident that a separate register of risk indicators would be required for these multilingual EAL pre-schoolers. According to Owens (2001:326-327), clausal conjoining with "and" is typically produced at the age of 41-46 months, while clausal conjoining with "because" appears at 47 months and "when", "but" and "so" soon afterwards. The absence of complex syntax at the age of 6 years would be regarded as a clinical marker for the English-speaking USA pre-school population, but not for the population of EAL pre-schoolers who acted as participants in the current study.

The information regarding syntactic complexity to be carried over to the *Profile* will be the following:

Profile summary 1: Syntactic complexity

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)		Simple sentences Example (from J1): That one, is his birthday
Middle group (5-0 to 5-11)		Simple sentences Example (from M15):

		He's blowing a candles
Senior group (6-0 to 6-11)	1. **Compound sentences joined by "and"** Example (from S21) They can open the presents and they can play. 2. **Complex sentences with an embedded object clause.** Example (from S24): I don't know what they are doing here.	**Simple sentences** Example (from S23): They can wash the dishes

6.4.   Syntactic structures

Data for this section was obtained from the conversation language sample only, since the conversation provided sufficient data on syntactic structures. Examination of the test data revealed no additional or modifying information. Data will be presented in two sections: clause level structures, and phrase level structures. The data obtained from the pre-school participants will be discussed separately for the three age groups.

6.4.1. Clause level structures

The term "clause level structures" refers to the constituent elements of the clause, as indicated in the list of abbreviations. The following abbreviations are used in this section:

S	subject	V	verb
O	object	Od	direct object
Oi	indirect object	C	complement
A	adverbial	c	connective
Q	question/question word	Comm	command

Data for participants in the Junior group

The syntactic structures produced *more than once* by members of the Junior group are presented in Tables 6.2 to 6.6.

Table 6.2.   **Minor utterances (no syntactic structure) observed in Junior group**

Type of minor utterance	N Participants
"Yes"	2
"No"	1
Other social expressions	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.3.   **One-word utterances observed in Junior group**

Type	N Participants
Question word	1
Verb	2
Noun	4
Other	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.4.   **Clauses containing two elements observed in Junior group**

Type	Notes	N Participants
SV		5
VO	Acceptable as elliptic response	1
VO (i)	Acceptable as elliptic response	1
VO	S expected but omitted	2

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.5.   **Clauses containing three elements observed in Junior group**

Type	N Participants
SVA	3
SVO	6
SVC	4

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.6.   **Clauses containing four elements observed in Junior group**

Type	N Participants
QSVC	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

The most commonly produced clause structures were those consisting of three elements (SVA, SVO, SVC). Only one irregular structure type was observed, namely the omission of the subject expected together with verb + object.

Example: "Must get it off" (J4 - Participant 4, Junior group)

It is interesting that, although a variety of syntactic structures were produced, no single clause structure could be identified as *typical* (i.e. produced more than once by 80% or more of the group members) of the Junior group. The clause structures SV (subject-verb) and SVO (subject-verb-object) can be regarded as *noteworthy* for this age group (produced more than once by respectively 50% and 60% of the group members).

Data for participants in the Middle group

The syntactic structures produced more than once by members of the Middle group appear in Tables 6.7 to 6.11.

Table 6.7.   Minor utterances (no syntactic structure) observed in Middle group

Type	N Participants
"Yes"	2
"No"	2

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.8.   One word utterances observed in Middle group

Type	N Participants
V	3
N	4
Adj	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.9. **Clauses containing two elements observed in Middle group**

Type	Notes	N Participants
SV		5
VO (i)		2
VO	Acceptable as elliptic response	1
VA	Acceptable as elliptic response	1
VA	S expected but omitted	2
VC	S expected but omitted	2
VO	S expected but omitted	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.10. **Clauses containing three elements observed in Middle group**

Type	Notes	N Participants
SVA		3
SVO		9
SVC		2
QSV		1
SVOi		2
SVV		1
VOA	S expected but omitted	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.11. **Clauses containing four elements observed in Middle group**

Type	N Participants
SVOiOd	3
SVOiA	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

All examples of irregular syntax were omissions of expected elements, specifically the omission of the subject in various clauses. As in the case of the Junior group, the SV (subject-verb) clause structure was *noteworthy* (produced more than once by 50% of group members). The three-element SVO (subject-verb-object) clause structure was *typical* (produced more than once by 90% of group members) of participants in this age group. No other typical or noteworthy clause structures can be identified from Tables 6.7 to 6.11.

Data for participants in Senior group

Tables 6.12 to 6.16 display the syntactic structures produced more than once by members of the Senior group.

Table 6.12.   Minor utterances (no syntactic structure) observed in Senior group.

Type	N Participants
"Yes"	9
"No"	7

Key:

N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

The one-word response "yes" was *typically* used (90%) by participants in this age group, and the response "no" was used by 70% of the participants, making it a *noteworthy* item for this age group.

Table 6.13.   One word utterances observed in Senior group.

	N participants
Pron	2
N	5
Other	2
V	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.14.   Clauses containing two elements observed in Senior group

Type	Notes	N Participants
SV		9
VC	S expected but omitted	2
VO	S expected but omitted	1
VO	Acceptable as elliptic response	1
VA	S expected but omitted	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure more than once.

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Table 6.15.   Clauses containing three elements observed in Senior group.

Type	Notes	N Participants
SVA		9
SVO		8
SVC		6
QSV		3
SVOi		3
SVA	Adverb clause	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Table 6.16.   Clauses containing four elements observed in Senior group.

Type	N Participants
SVOA	6
SVCA	4
SVOiOd	4
SVAA	4
SVVO	1
SVOiA	1
SVOiC	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

In addition to the one-word structure "yes", the following *typical* structures (produced more than once by 80% or more of the participants in the group) were identified for the Senior group:

SV (subject-verb)
SVA (subject-verb-adverbial)
SVO (subject-verb-object)

There were also some clause structures that occurred *notably* in this group (produced more than once by 50%-70% of the group members):

One-word utterance "No"
SVC (subject-verb-complement)
SVOA (subject-verb-object-adverbial)

These typically and notably occurring structures correspond to the syntactic structures seen to develop earliest in typically developing English-speaking children between the ages of 28 and 34 months (Owens, 2001:326, 1999:200). The EAL pre-schoolers

appeared to be following the accepted characteristic developmental sequence for the development of English syntax.

Although Table 6.16 does not include clauses of more than four constituent elements, some members of the Senior group did occasionally produce longer clauses. The following types of clauses containing more than four elements, or containing more complex syntax were produced only *once* by one, two or three participants in the Senior group:

SVVOA	SVVO + postmodifying clause
SVOA + postmodifying clause	SVOAA
SVOiOdA	SVOiOdAA
SVC + postmodifying clause	SVAA + postmodifying clause
SVOAA + postmodifying clause	SVOC + postmodifying clause
SVCAA + 2 postmodifying clauses	SVO + 2 postmodifying clauses

This information is worth mentioning because it is indicative of a developmental potential for more complex syntax. No clauses with more than four elements or more complex syntax were produced by any participants in the younger age groups. This fact, as well as the data in the tables for the respective age groups, indicated a developmental trend in clause structure as illustrated in Figure 6.2.

	Junior	Middle	Senior
Clauses containing two elements			1
Clauses containg three elements	1	1	3
Clauses containing four elements			1
Total	1	1	5
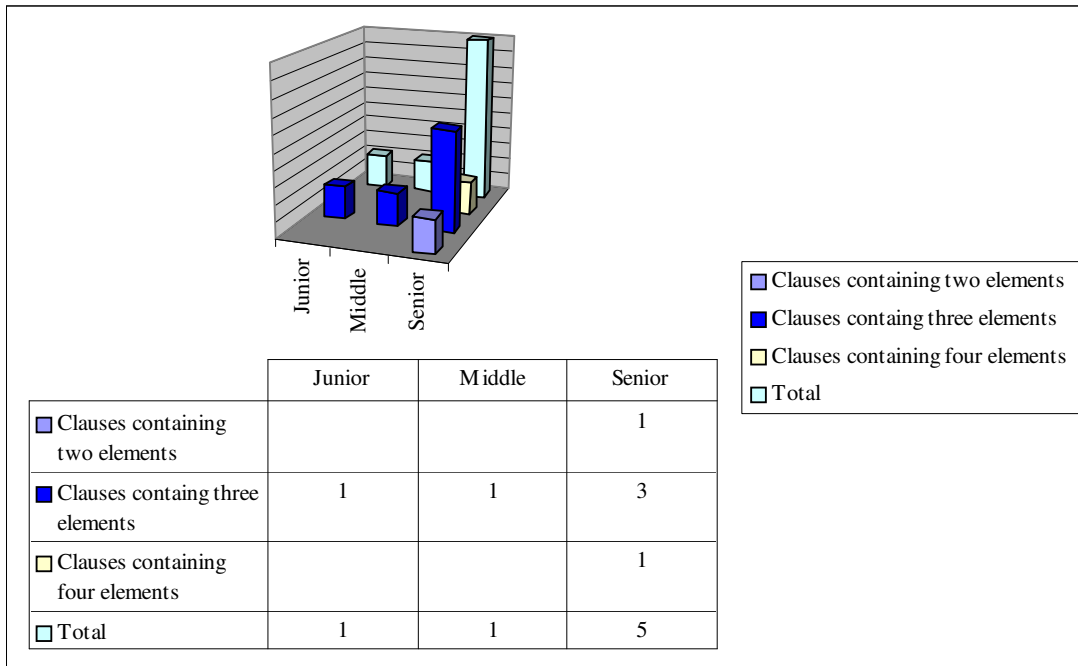
Figure 6.2. Developmental trend for clause structures produced by EAL pre-schoolers

It is remarkable that the examples of irregular syntax found in the Senior group were of the same type as for the younger participants, namely the omission of the subject in three types of clause structure: VC (verb-complement), VO (verb-object), and VA (verb-adverbial). The co-occurrence of less mature and more mature syntactic forms was noted for children with SLI (Leonard, Miller & Gerber, 1999; Owens, 1999:37). However, these omissions occurred only in 10%-20% of the participants in the Senior group and therefore cannot be regarded as truly typical of this group. Furthermore, researchers have pointed out that children who learn language through imitating linguistic units of various lengths (words, phrases, clauses) are likely at any given developmental moment to display a great variety in the complexity of the linguistic units that they use (Bishop & Leonard, 2000:2).

The information regarding syntactic structures to be carried over to the *Profile* will be the following:

Profile summary 2: Clause structures

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)

Junior group (4-0 to 4-11)	SV
	  Example (from J5):
	  We playing
	SVO
	  Example (from J6):
	  The man is take this
		No typical behaviour could be identified

Middle group (5-0 to 5-11)	SV
	  Example (from M12):
	  I was crying
		SVO
		  Example (from M11):
		  I eat sweeties and chips and Simbas

Senior group (6-0 to 6-11)	3. "No" 4. SVC (subject-verb-complement) Example (from S23): It's sore 5. SVOA (subject-verb-object-adverbial) Example (from S23): You put it at the back of the people	6. "Yes" 7. SV (subject-verb) Example (from S29): I'm playing 8. SVA (subject-verb-adverbial) Example (from S25): The cat he sit in this girl his chair 9. SVO (subject-verb-object) Example (from S25) This one he want the cake

Note: The sentences used as examples contain various instances of unconventional phrase or morphological structure. These examples were intentionally included to indicate that the focus here is on *clause structure* only. This policy will apply in the rest of this chapter as well as for Chapters 7 and 8.

6.4.2. Phrase level structures

The term "phrase level structures" refers to the noun or verb representing a specific clause element, or a noun or verb together with its modifier/s, or the group of words that is used as a noun or verb substitute. The following abbreviations are used in this section:

D/det	determiner	Prep	preposition
N	noun	V	verb
V part.	Verb particle	Aux	auxiliary verb
Cop	copula	Adj	adjective
Pron	pronoun	Neg	negative

In the discussion and the tables to follow, the term *conventional* is used to refer to structures that occur in the grammatically acceptable utterances of typical speakers of

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conventional English, while the term *unconventional* is used to refer to structures that occurred in the utterances of the EAL pre-schoolers but would not be regarded as grammatically acceptable for typical speakers of conventional English.

Noun phrases - Junior group

A noun phrase can consist of several parts, but must always contain a noun. The possible constituents of noun phrases in English include determiners (such as "a", "the"), modifiers such as adjectives, and postmodifiers ("the boys *from the junior class*") (Brown & Attardo, 2005:34, 358). Noun phrases produced more than once by members of the Junior group consisted of one, two, or three constituents (Table 6.17).

Table 6.17.   Noun phrase structures observed in Junior group

Conventional	Unconventional	N Participants
DN		7
	D (the) superfluous	2
	Inappropriate D (*the/a*)	1
	N only, D omitted in obligatory context	5
PrepN		2
PrepDN		4
	Omission of Prep	1
DAdjN		2

Key:
N participants = number of participants who demonstrated the use of the indicated structure more than once.

No *typical* noun phrase structures (produced more than once by 80% or more of the participants) were observed for this group. Two phrase structures, however, can be regarded as *noteworthy*, both involving the D (determiner). In one case the production of N (noun) was preceded by D (determiner) (produced more than once by 70% of the participants in the group). In the other case the D was omitted although it was obligatory in the context according to the expectations of standard English usage (produced more than once by 50% of the participants in the group). This is an example of co-occurrence of mature and immature forms, as described by Leonard, Miller and Gerber (1999) and Owens (1999:37) for children with SLI. However, it

could not be regarded as *typical* for this group of pre-school participants on the grounds of the present data.

Noun phrases - Middle group

The Middle group, like the Junior group, produced noun phrases consisting of one to three constituents (Table 6.18).

Table 6.18.   **Noun phrase structures observed in Middle group**

Conventional	Unconventional	N Participants
DN		9
	D (the) superfluous	5
	D (a) superfluous	2
	D omitted in obligatory context	1
PrepN		3
PrepDN		8

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

The production of DN (Determiner + Noun), which was noteworthy in the Junior group, could be regarded as *typical* of the Middle group of pre-school participants (produced more than once by 90% of participants in the group). The other *typical* noun phrase structure also included the Determiner and Noun, together with a Preposition (PrepDN). A *noteworthy* 50% of the participants in this group showed a tendency to produce superfluous determiner "the", together with a lower percentage of participants (20%) who tended to also produce determiner "a" superfluously. One percent of the participants, on the other hand, tended to omit determiners in obligatory contexts. The use of the determiner in English may not be quite established yet at this age for EAL pre-schoolers.

Noun phrases - Senior group

The Senior group was the only group that yielded participants who produced adjectives and NN (two adjacent nouns) in the noun phrases, although these two types

of noun phrase structures were only produced by the minority of the participants in this group (Table 6.19).

Table 6.19.   Noun phrase structures observed in Senior group

Conventional	Unconventional	N Participants
DN		9
PrepN		7
PrepDN		8
DAdjN		3
NN		1
DNN		3

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

As in the case of the Middle group, DN (Determiner + Noun) and PrepDN (Preposition + Determiner + Noun) were noted as *typical* noun phrase structures produced by pre-school participants in the Senior group. The noun phrase consisting of Preposition + Noun (as in "at home") was *noteworthy* for this group. The pre-schoolers in the Senior group did not produce any unconventional noun phrases.

In general, the three significant elements of the noun phrase for these three age groups of EAL pre-schoolers appeared to be the noun itself, determiners, and prepositions.

Verb phrases – Junior group

The basic structure of the verb phrase in English consists of the verb and its auxiliaries, including the modal and passive form auxiliary verbs (Brown & Attardo, 2005:358). Theoretically the verb may take up to four auxiliaries, but this rarely occurs. Multiple auxiliaries were not produced by the pre-school participants, but infinitive forms occurred from the youngest group onwards (Table 6.20).

Table 6.20.   Verb phrase structures observed in Junior group

Conventional	Unconventional	N Participants
Cop is, are, am		6
Aux is +V + suffix -ing (including forms *am*, *was*; also negative with *not*)		8
	AuxV is (*am, are* etc.) +V (no suffix –ing)	3
	Aux is (are, etc.) omitted in obligatory context (with –ing)	2
AuxVV is going to		2
AuxV must		1
Aux (neg)V, as in "don't know"		3
	Aux is + want	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

The verb phrase structure *Aux is +V+-ing* (for example "is looking") was found to be *typical* for this age group (produced more than once by 80% of the group members). The use of the copula (is, are, am) was *noteworthy* (produced more than once by 60% of the members of this age group). The verb *be* therefore appeared to be the first verb form to emerge in general use by these EAL pre-schoolers in addition to main verbs. It must be noted that although the *form* of the verb structure was grammatically acceptable, it was sometimes used in an unconventional way, for instance to indicate habitual events or activities.

Example: Me, I'm sick, because I'm sleeping late (J9)

Verb phrases – Middle group

The participants in the Middle group produced the same number of conventional verb phrase structures as the participants in the Junior group, and one more type of unconventional verb phrase (Table 6.21).

Table 6.21.   Verb phrase structures observed in Middle group

Regular	Irregular	N Participants
Cop is, are, am, was		4
AuxV is + -ing (including forms *am, are, was*; also negative with *not*)		3
	AuxV is (*am, are* etc.) = +V (no –ing)	1
	Aux is (are, etc.) omitted in obligatory context (with –ing)	4
AuxVV is going to		4
Aux (neg)V: don't +V		3
VV want to		1
	Verb stem alone used unconventionally	5
	Did + V for past	1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

Although a variety of verb phrase structures (nine structures used more than once by at least two participants) was observed for the Middle group, no structure occurred frequently enough to be regarded as typical of this age group. The unconventional use of verb stem alone (for example "my mother *say...*"- M11) occurred frequently enough to be identified as *noteworthy* (used more than once by 50% of the participants in this age group).

Verb phrases – Senior group

The participants in the Senior group produced a wider variety of verb phrase types than those in either of the younger groups, but they also produced more unconventional verb phrase structures (Table 6.22).

Table 6.22.   Verb phrase structures observed in Senior group

Conventional	Unconventional	N Participants
Cop is, are, am, was		7
Aux is +V +-ing (including forms am, are, was)		8
	AuxV is (am, are etc.) +V (no –ing)	1
	Aux is (are, etc.) omitted in obligatory context (with –ing)	1
AuxVV is going to		1
VV want to		2
Start(ed) + V-ing		2
AuxV will + V		2
Will be V + -ing		1
AuxV can + V		2
Aux V could + V		1
Have got		1
Is/are gonna + V		2
Vpart		6
	Use of -ing extended	1
	Verb stem alone used unconventionally	3
	Did + V to indicate past tense	2

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

As in the case of the Junior group, the verb phrase structure *Aux is +V+-ing* (for example "is looking") was found to be *typical* for this age group (produced more than once by 80% of the group members), while the use of the copula (is, are, am) was *noteworthy* (produced more than once by 60% of the members of this age group). An additional *noteworthy* verb phrase structure (produced more than once by 60% of the group members) was verb + particle (as in "fell down"). In comparison to the Junior group, though, the participants in the Senior group produced a wider variety of verb phrase structures. Seventeen structures were produced more than once by one or more members of the Senior group, whereas in the Junior group only eight verb phrase structures were produced more than once by one or more members.

The relatively low percentages of participants who demonstrated use of the various verb phrase structures may be indicative of the extensive range of verb phrase structures of English, and the diverse routes and strategies that young EAL learners pursue in their acquisition of the verb phrase structure of English.

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Pronoun structures

Pronouns are included in this section, though analysed separately, since they are used in the place of a noun phrase and are also described under phrase structures by Crystal, Garman and Fletcher (1989). For the purpose of this analysis, the two phrases *this one* and *that one,* as well as the words *this* and *that* when used in isolation, are counted as demonstrative pronouns.

The use of unconventional gender forms such as "he" to refer to "the girl" was not noted here, as this section is only concerned with the form aspect. The use of conventional pronoun forms and the unconventional resumptive pronoun will be discussed. Unconventional use of case form, such as nominative for accusative case ("me" for "I"), as well as unconventional use of gender forms (such as the use of "he" to refer to "the girl") was counted in the form analysis, but these unconventional forms did not appear more than once in the language sample of any participant. The only exception is the use of *she* to refer to a masculine person, which occurred respectively twice and three times in the samples of two participants, both of whom produced more than 60 examples of conventional pronoun use in their language samples. Unconventional case and gender forms are therefore not regarded as significant for the analyses (see Chapter 5 section 5.8 *Data analysis*).

In the tables included in the following discussion the term *N participants* refers to the number of participants producing more than two examples of a specified pronoun structure.

Pronoun structures – Junior group

The variants of *this/this one* and *that/that one* accounted for almost half of the types of pronoun produced more than once by the participants in the Junior group (Table 6.23), but the number of participants was generally low. Table 6.23 provides a list of all the pronoun structures observed in the Junior group.

Table 6.23.   Pronoun structures observed in Junior group

Conventional	Unconventional	N Participants
That one (subject/nominative)		1
This one (subject/nominative)		4
This one's (possessive)		1
This (subject/nominative)		2
These (subject/nominative)		1
This (object, complement/accusative)		1
That (object/accusative)		1
I (subject/nominative)		7
Me (object/accusative)		1
My (possessive)		4
He (subject/nominative)		1
It (subject/nominative)		2
They (subject/nominative)		2
We (subject/nominative)		1
You (subject/nominative)		2

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once*.

No typical pronoun usage (produced more than once by more than 80% of the participants in the group) was found, and only one *noteworthy* (70%) example, namely the nominative/subject form of the first person pronoun ("I"). It is interesting to note that no unconventional forms of the pronoun were produced more than once by any participants in the Junior group.

Pronoun structures – Middle group

The participants in the Middle group displayed a wider variety of pronoun use (Table 6.24) than the participants in the Junior group. Table 6.24 presents a list of all the pronouns observed in the Middle group.

Table 6.24.   Pronoun structures observed in Middle group

Conventional	Unconventional	N Participants
	Resumptive pronouns	1
I (subject/nominative)		9
Me (object/accusative)		6
My (possessive)		7
He (subject/nominative)		3
She (subject/nominative)		2
It (subject/nominative)		3
They (subject/nominative)		7
We (subject/nominative)		1
Other one/ (object)		1
Others/the others		1

Key:

N participants = number of participants who demonstrated the use of the indicated structure *more than once.*

The use of the first person nominative pronoun ("I"), which was noteworthy for the Middle group, was found to be *typical* (used more than once by 90% of participants) for the Middle group. The members of this group also made *noteworthy* use of two additional forms of the first person pronoun, namely the accusative form ("me") (used more than once by 60% of group members) and the possessive form ("my") (used more than once by 70% of group members), as well as the third person plural nominative form "they" (used more than once by 70% of group members). The resumptive pronoun was the only unconventional form noted, but only for one participant in this group.

Pronoun structures – Senior group

The participants in the Senior group not only used more types of pronouns than the members of the younger groups, the number of participants producing these pronouns

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was also generally higher than for the younger groups. Table 6.25 provides a list of all the pronouns observed in the Senior group.

Table 6.25.   Pronoun structures observed in Senior group

Conventional	Unconventional	N participants
	Resumptive pronouns	4
That one (subject/nominative)		1
I (subject/nominative)		9
Me (object/accusative)		9
My (possessive)		9
He (subject/nominative)		7
Him (object, complement/accusative)		1
His (possessive)		1
She (subject/nominative)		5
It (subject/nominative)		6
They (subject/nominative)		8
We (subject/nominative)		5
You (subject/nominative)		4
Your		1
Her (possessive)		2
One		1

Key:
N participants = number of participants who demonstrated the use of the indicated structure *more than once*.

The use of the following pronouns by the members of the Senior group can be regarded as *noteworthy:*

- Third person nominative "he", "she", and "it" (respectively 70%, 50% and 60%)
- First person plural nominative form "we" (50%)

The pronouns that were used *typically* (that is, used more than once by 80% or more of the participants in the Senior group) also fall within the first and third person categories:

- First person singular "I", "me", "my" (all produced more than once by 90% of the participants)
- Third person plural "they" (used more than once by 80% of the participants).

The relatively high frequency of occurrence of first person pronouns in all three groups of pre-school participants, and also of third person pronouns in the Senior group, may be related to the nature of the narrative that was elicited, namely a personal narrative concerning something that happened to the child.

It should also be noted that there was no typical or noteworthy instance of any unconventional use of pronouns, specifically not of the resumptive pronoun form, which was produced more than once by only 10% of the participants in the Middle group and 40% of the participants in the Senior group. This seems to be contradictory to the findings of Nxumalo (1997:16). A closer scrutiny of the raw data showed, however, that the use of resumptive pronouns seemed to occur frequently in the language samples of certain *individual* participants, notably S25 and S26 (participants 25 and 26 in the Senior group). Examples of their use of resumptive pronouns are provided below.

> S25:   And <u>this one, he</u> want the cake
>
>   The cat, he sit in this girl his chair
>
>   And my, <u>my here, he</u> was sore.
>
> S26:   <u>That girl, he</u> blow it (candles on birthday cake)
>
>   My stomach, it was sore
>
>   <u>My father, he</u> give me a Simba chips

Developmental trends observed in the phrase level productions of the pre-school participants are depicted in Figures 6.3 to 6.5.
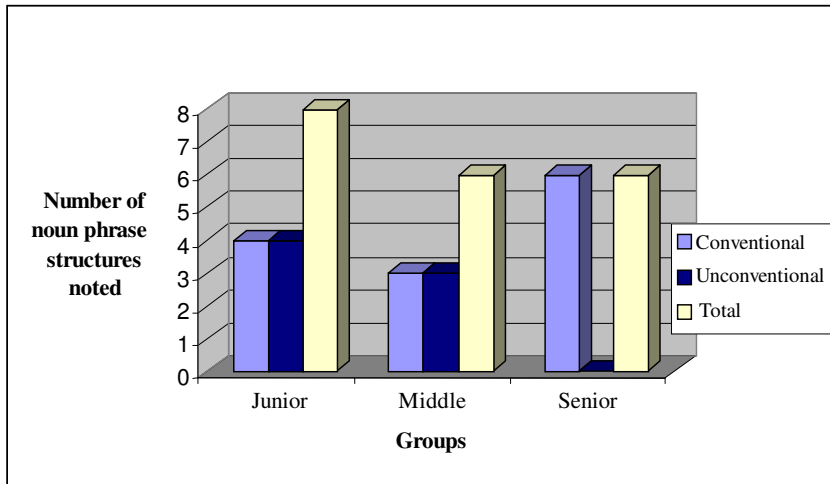
Figure 6.3. Developmental trends observed for the production of noun phrases by the three groups of pre-school participants

A developmental tendency for the production of noun phrases appeared in the decreasing number of unconventional noun structures produced, and also the overall increase in the number of conventional noun phrase structures produced by the participants in the Senior group when compared to the participants in the Junior group (Figure 6.3).
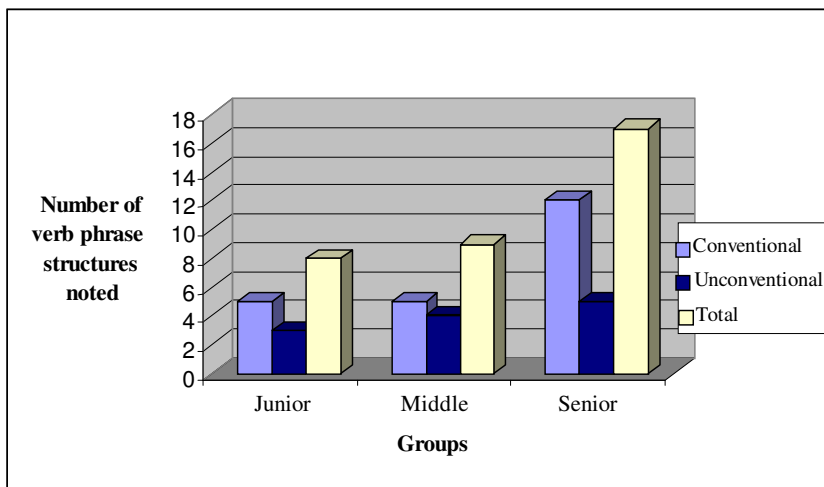
Figure 6.4. Developmental trends observed for the production of verb phrases by the three groups of pre-school participants

There appeared to be a gradual increase (Figure 6.4) in both the irregular and the regular forms of verb phrases with the increase of age in the three groups of pre-school participants, but with a steeper gradient for the conventional forms. Since the verb

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phrase in English is acknowledged to be considerably more complex than the noun phrase (Brown & Attardo, 2005:34), the increase in both conventional and unconventional forms is to be expected as young EAL speakers increasingly assimilate more verb forms into their language use.
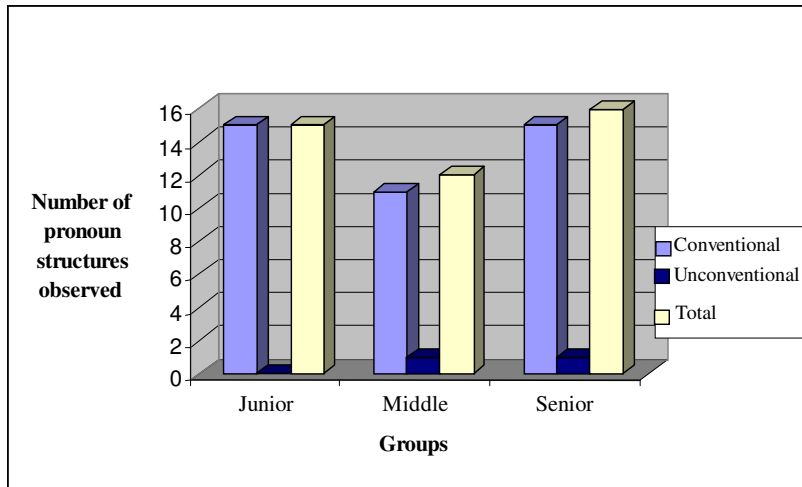
Figure 6.5.   Developmental trends observed for the production of pronoun phrases by the three groups of pre-school participants

No clear developmental trend for the production of pronoun forms can be deduced from Figure 6.5. The only sign of development over age is the slight increase in the total number of pronoun structures produced.

With regard to noun phrase structures, verb phrase structures, and pronoun phrase structures, the information to be carried over to the *Profile* will be the following:

Profile summary 3: Noun phrase structures

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	1. DN Example (from J1): the cake 2. N only, D omitted in obligatory context Example (from J5): (is) umbrella	No typical behaviors could be identified
Middle group (5-0 to 5-11)		1. DN Example (from M11): a car 2. PrepDN

		Example (from M12): in the shop
Senior group (6-0 to 6-11)	PrepN Example (from S25): at school	1. DN Example (from S24): This picture 2. PrepDN Example (from S26): In that thing

Profile summary 4: Verb phrase structures

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	Copula is, are, am Example from J4: That's a nice present Example from J9: Me, I'm sick	Is/was/am + verb + -ing (also negative with *not*) Example from J10: The sister is washing Example from J9: I'm not playing outside
Middle group (5-0 to 5-11)	Verb stem alone (unconventional) Example from M11: My mother say I don't play ball	*No typical behaviours could be identified*
Senior group (6-0 to 6-11)	1. Copula is, are, am, was Example from S21: Maybe it's a dog present Example from S30: …I'm Superman 2. Verb + particle Example from S30: They pick me up	Is/am/are/was + verb + -ing Example from S21: One's sitting Example from S27: They are praying

Profile summary 5: Pronoun phrase structures

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	"I" as subject Example from J2: I don't know	*No typical behaviours could be identified*
Middle group (5-0 to 5-11)	1. "Me" as object Example (from M12): My father take me to the doctor 2. "My" (possessive) Example (from M12): My father take me to the doctor 3. "They" as subject Example (from M12): They give me medicine	"I" as subject Example from M11: I got a car

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Senior group (6-0 to 6-11)	1. "He", "she", "it" as subject Example (from S21): She invited them 2. "We" as subject Example (from S21): We just keep the cat in the house	1. "I" as subject Example (from S21): I was sick 2. "Me" as object Example (from S24): The stove blood me here 3. "My" (possessive) Example (from S25): I did give children my cake 4. "They" as subject Example (from S26): They go away

6.5.   Morphology

For the purpose of this research, *morphology* refers to the *structure and form of words,* the way words vary or are inflected (words and parts of words are combined) to show grammatical relationships (Crystal, 1981:98; Owens, 2001:21; Hoff, 2005:3).   This section is concerned with the morphological structures produced and omitted by each pre-school participant.   Data was obtained from the elicited conversation (see Table 5.2, Chapter 5) and from Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (revised edition.) (Kirk, McCarthy & Kirk, 1968).

6.5.1. Verb morphology

The term *verb morphology* as it is used here refers to the inflections for tense and person carried by verbs in English (Brown & Attardo, 2005:342).   The types of verbs (main verbs, copula, and auxiliaries) were counted separately for the analysis of verb morphology appearing in the expressive language of the pre-school participants.

Main verbs

For the sake of clarity, examples of the verb morphology sought and identified in the language samples of the EAL pre-school participants are provided in Table 6.26.

Table 6.26. **Examples of verb morphology in language samples of pre-school participants**

Use of (aspect)	Way in which it was used	Notes and examples
Verb stem	Grammatically acceptable	Appropriate use of verb stem alone or with auxiliary verb Example: (Q: How do you play that game?) You *throw* the ball in that thing (S26)
	Grammatically unacceptable	Grammatically unacceptable use of verb stem alone Example: (Q: What will the water do?) It *do* a cold (M13)
Past tense form	Irregular	Grammatically acceptable use of irregular past Example: They *gave* me medicine (S21)
	Regular (grammatically acceptable)	Grammatically acceptable use of regular past form of verb Example: Then they *finished* (S24)
	Regular (grammatically unacceptable)	Grammatically unacceptable regular past form, as for a verb requiring irregular form. Example: They *eated* (S24)
Past substitute: Various unconventional verb forms used to indicate past tense	*Did* + verb stem	Use of *did* + verb stem to indicate past Example: He *did do* me an injection (M17)
	Present progressive	Use of present progressive to indicate past Examples: (Q: What happened?) I′m *coughing* (J6) (Q: What was wrong with you?) I′m *sicking* (J9)
	Am/is/are + verb stem	Use of *am/is/are* + verb stem to indicate past Example: (Q: What did she do?) *Is hit* them (M18)
	Was + verb stem	Use of *was* + verb stem to indicate past Example: And there was the balloons, up, and that man, he *was blow* it (S26)
	Must + verb stem	Use of *must* + verb stem to indicate past Example: And my mommy was finishing and *must go*, *must call* me (J4)
	Forms of *be* + *-ed*	Use of *am* + *-ed* to indicate past Example: *I'm coughed* (J7)
Progressive	Grammatically acceptable	Appropriate use of present progressive or past progressive aspect Examples: *Is raining* water (J5) She *was drinking* beer (S23)
	Extended	Use of progressive aspect extended to non-typical verb structure. Example: (Q: What are you going to do in your class now?) Gonna *eating* (J1)

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Use of (aspect)	Way in which it was used	Notes and examples
	Omitted	Progressive aspect required but omitted. Example: This one is swinging and this one is *fall* (J6)
3rd s present	Grammatically acceptable	Grammatically acceptable use of 3rd person singular form of verb Example: This one *has* present (J4)
Unconventional forms of present tense	*Is* + stem	Use of *is* + verb stem to indicate present tense Example: (Q: Why are all these people here?) Because *is want* the cake (J10)
Infinitive	Grammatically acceptable	Grammatically acceptable use of infinitive form of verb. Example: I told my mommy *to hit* others (M13)
	Grammatically unacceptable	Grammatically unacceptable use of infinitive form of verb. Example: When I finished *to sick,* my medicine all finished (M14)

Aspects analysed and counted in this section include all productions of main verb structures except the copula.   Auxiliary verbs and the copula were examined in separate sections. Results for the main verb are displayed in Table 6.27.

Table 6.27.   Morphology of main verbs produced by pre-school participants

Aspects	Utilisation	N using twice or more		
		Junior group	*Middle group*	*Senior group*
Verb stem	Grammatically acceptable	4	8	9
	Grammatically unacceptable	2	8	8
Past tense	Irregular	3	5	7
	Regular grammatically acceptable	0	1	4
	Regular grammatically unacceptable	0	0	0
	did+ stem	0	1	2
	Present progressive	3	2	1
	be + stem	2	1	0
	was + stem	0	0	0
	must + stem	1	0	0
	be + -ed	0	0	0
Progressive aspect	Grammatically acceptable	5	7	9
	Extended	4	3	5
	Omitted	2	0	0
3rd singular present	Grammatically acceptable	2	0	3
All forms of present	is + stem	1	0	0
Infinitive	Grammatically acceptable	2	2	3
	Grammatically unacceptable	0	0	0

Auxiliary "be" and Copula "be"

All forms of copula *be* and auxiliary *be* were counted. Notes and examples with regard to copula and auxiliary "be" sought and identified in the language samples of the pre-schoolers appear in Table 6.28.

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Table 6.28.   **Examples of copula and auxiliary "be" produced by pre-school participants**

Use of (aspect)	Way in which it was used	Notes and examples
All forms of copula be (is, am, are, were)	Grammatically acceptable	All accurately used forms were counted together Examples: There is a party (S27) It was a nice birthday (S30) I'm Superman (S30)
	Omitted in obligatory context	Example: Who birthday? (M13)
	Grammatically unacceptable tense markers	Example: (Q: Why did you need a plaster?) Because is sore (M15)
	Inaccurate person markers	None noted for copula
All forms of auxiliary be (is, am, are, were)	Grammatically acceptable	All accurately used forms were counted together Examples: It's raining (J6) I was crying (M12)
	Omitted in obligatory context	Examples: That people sitting in the chairs (J1) We playing (J5)
	Grammatically unacceptable tense markers	Example: My mommy is put me to doctor (J4)
	Inaccurate person markers	Example: These and these and these is drinking (J8)
	Superfluous	Example: I'm coughed (J7)

The results obtained from the count of auxiliary and copula "be" appear in Table 6.29. Because so few instances of grammatically unacceptable productions of copula and auxiliary *be* were found, the data for unacceptable productions was not analysed further. In general the forms that appeared were accurate (grammatically acceptable)

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Table 6.29.   Auxiliary and copula "be" produced by pre-school participants

Production of copula and auxiliary, all forms of be	N from each group using a structure more than once		
	Junior group	Middle group	Senior group
Copula be			
Grammatically acceptable	6	2	8
Omission	1	0	0
Unacceptable form	0	0	1
Auxiliary be			
Grammatically acceptable	6	9	9
Omission	1	1	2
Grammatically unacceptable tense markers	2	1	1
Inaccurate person markers	1	1	1
Superfluous	2	0	0

Other auxiliaries used

Other auxiliary verbs used were also counted to obtain information on general use of auxiliaries. Notes and examples concerning the auxiliary verbs sought and identified in the language samples of the pre-school participants appear in Table 6.30. The expression "has got" to indicate possession (as in "He has got a nice house") is a fixed expression in South African English and was therefore not included in the count of auxiliaries.

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Table 6.30.   Examples of auxiliary verbs produced by pre-school participants

Will: auxiliary will used to indicate future tense or intention Examples: Then he'll run, get to their house (S24). …and then the dog will be looking for the cat to eat (S30)
Have/has: auxiliary have used to form perfect tense Examples: I've been to hospital, yes (S21) The dog has seen the present (S27)
Can/could: use of modal auxiliary can/could Examples: They can open the presents and they can play (S21) (Explaining game)…twenty-nine is very far, you could get there quickly
Did: use of auxiliary did for question forms Example: Why did the baby cry? (J10)
Must: use of modal auxiliary must. Examples: And my mommy was finishing and must go (J4) (Explaining game) You must do like this (S30)
Don't/didn't: use of auxiliary do to express negative forms Examples: I don't know (J2) I said, "I was running, and I didn't see it, and she blood me" (S24)

The results from this count are displayed in Table 6.31.

Table 6.31.   Auxiliary verbs produced by pre-school participants

Auxiliary verbs	N from each group using structure more than once		
	Junior group	Middle group	Senior group
will	0	0	2
have/has	0	0	0
can/could	0	0	3
did	0	0	0
must	1	0	1
don't/didn't	3	3	5

As in the case of the copula and auxiliary *be*, relatively few participants used grammatically unacceptable forms of the other auxiliaries. Substitution of auxiliary verbs occurred only once in the language samples (is/do – participant J10: "Because is not want the baby"). However, in general few of the participants used the auxiliaries and no typical language behaviour in this regard could be identified.

The information to be carried over to the *Profile* concerning morphology of main verbs produced by the pre-school participants will be the following:

Profile summary 6 – Morphology of main verbs

Group	*Noteworthy behaviour (50-70% of group)*	*Typical behaviour (80%+ of group)*
Junior group (4-0 to 4-11)	**Progressive aspect (Grammatically acceptable)** Example (from J1): That one <u>is sitting</u> in the chairs	*No typical behaviour could be identified*
Middle group (5-0 to 5-11)	1. **Irregular past (grammatically acceptable)** Example (from M11): I <u>got</u> a car 2. **Progressive aspect (grammatically acceptable)** Example (from M15): They <u>are playing</u>	1. **Verb stem (grammatically acceptable)** Example (from M14): When I <u>go</u> like this, it's sore 2. **Verb stem (grammatically unacceptable)** Example (from M15): He <u>give</u> me a medicine
Senior group (6-0 to 6-11)	1. **Irregular past (grammatically acceptable)** Example (from S21): They <u>gave</u> me medicine 2. **Extended use of progressive aspect** Example (from S27): Nomsa <u>is hitting</u> us	1. **Verb stem (grammatically acceptable)** Example (from S27): We <u>play</u> school 2. **Verb stem (grammatically unacceptable)** Example (from S27): And then he <u>check</u> my ears 3. **Progressive aspect (grammatically acceptable)** Example (from S27): They <u>are praying</u>

The information to be carried over to the *Profile* concerning the production of copula and auxiliary "be" by the pre-school participants will be the following:

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Profile summary 7 – Copula and auxiliary "be"

Group	Noteworthy behaviour (50-70% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	1. **Copula** *be* **used appropriately** Example (from J4): Is this one's birthday 2. **Auxiliary** *be* **used appropriately** Example (from J6): It's raining	No typical behaviour could be identified
Middle group (5-0 to 5-11)		**Auxiliary** *be* **used appropriately** Examples (from M15): They are playing I'm going home
Senior group (6-0 to 6-11)		1. **Copula** *be* **used appropriately** Example (from S27): There is a party Examples (from S30): It was a nice birthday I'm Superman 2. **Auxiliary** *be* **used appropriately** Example (from S21): One's sitting, one's playing and the other one is also playing

The information regarding the use of auxiliary verbs other than *be* to be carried over to the *Profile* will be the following:

Profile summary 8 – Auxiliary verbs other than *be*

Group	Noteworthy behaviour (50-70% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)		
Middle group (5-0 to 5-11)		
Senior group (6-0 to 6-11)	**Use of auxiliary** *do* **in negative form (*don't, didn't*)** Example (from S21): I don't cut my cat's nails Example (from S24): I said, "I was running, and I didn't see it, and she blood me"	No typical behaviour could be identified

For all verb forms: subject-verb agreement

The agreement between subject and verb is an aspect of the grammar of English that often proves difficult for both EAL speakers and children with language impairment (Owens, 2004:203, 197; Nxumalo, 1997:25; Van der Walt, 2001:11).   Table 6.32 provides information on the agreement between subject and verb found in the language samples of the pre-school participants.

Only *evidence of* subject-verb agreement was counted.   Regular and irregular past tense without auxiliary verb was not counted (for example I/he/they played, went) because subject-verb agreement is not demonstrated.   Indefinite/generic verb responses were not counted either, for example elliptic response to questions giving only the participle (what is he doing?   Eating).

Table 6.32.   **Subject-verb agreement displayed in the language of EAL pre-school participants**

Subject-verb agreement: N from each group demonstrating more than one instance										
Group	Agreement					Non-agreement				
	1st s	1st pl	2nd	3rd s	3rd pl	1st s	1st pl	2nd	3rd s	3rd pl
Junior	5	0	1	7	1	1	0	0	2	3
Middle	8	1	2	5	3	0	0	0	3	1
Senior	9	5	4	10	8	0	0	0	9	4

Key to table:
N = number of pre-school participants in each age group
1st, 2nd, 3rd = first, second, or third person subject
s = singular, pl = plural

The two parts of Table 6.32 (*Agreement* and *Non-agreement*) have to be considered together before any conclusions can be drawn.   When looking at *agreement* only, the use in English of a plural-like verb form together with the pronoun *you* seemed to present a problem for this group of young speakers as a whole.   However, no actual instances of *non-agreement* were noted.   It is important to bear in mind that the purpose of this analysis is only to *record those occasions when specific behaviours occurred* and not to draw conclusions from the absence of any behaviours.

The significance of the data in Table 6.32 seems to lie in the co-occurrence of *typical* agreement and *typical* non-agreement in the case of singular subjects not of the first and second person, as demonstrated by the members of the Senior group.   Although

subject-verb agreement in this type of construction is *noteworthy* for the two younger groups, the older pre-school participants still have not yet quite resolved the matter of grammatically acceptable verb morphology. This phenomenon appears to attest to the intricacy and even obscurity of the verb system in English when it is approached from the perspective of a young EAL learner.

The subject-verb agreement referred to in the column relating to first person singular correlates with the use of the verb stem as well as the use of the appropriate form of the verb *be* both as copula and as auxiliary verb. By the age of 5-0 to 5-11 (Middle group) the pre-school participants in this study appeared to have mastered these two facets, as no instances of non-agreement were noted for either the Middle or the Senior group.

The information regarding subject-verb agreement to be carried over to the *Profile* will be the following:

Profile summary 9 – Subject-verb agreement

Group	*Noteworthy behaviour (50-80% of group)*	*Typical behaviour (80%+of group)*
Junior group (4-0 to 4-11)	1. **Subject-verb agreement for 1st person singular** Example (from J4): I'm falling down 2. **Subject-verb agreement for 3rd person singular** Example (from J4): Mommy is taking a cake	*No typical behaviour could be identified*
Middle group (5-0 to 5-11)	**Subject-verb agreement for 3rd person singular** Example (from M11): Other one takes the Simbas	**Subject-verb agreement for 1st person singular** Example (from M15): I'm going home
Senior group (6-0 to 6-11)	**Subject-verb agreement for 1st person plural** Example (from S21): When we watch TV, it doesn't bother us	1. **Subject-verb agreement for 1st person singular** Example (from S21): I have 'flu now 2. **Subject-verb agreement for 3rd person singular** Example (from S21): That was a cruel dog

		3. **Subject-verb non-agreement for 3rd person singular** Example (from S21): His head go up and down 4. **Subject-verb agreement for 3rd person plural** Example (from S21): They're having a birthday

6.5.2. Noun morphology

This aspect, like verb morphology, is regarded as indicative of SLI (Leonard, Miller & Gerber, 1999; Owens, 1999:38). Owens (1999:32) also reports that grammatically unacceptable noun forms have been identified as possible indicators observed for language learning disorder (LLD) in English. The specific aspects of noun morphology that were investigated in the current research are forms that develop in the preschool stage for normal language development (Hoff, 2005:200).

The analysis of noun phrase structures included an indication of grammatically acceptable/unacceptable productions of
> possessive forms of nouns
> plural forms of nouns
> pronouns
> articles and quantifiers
> adjectival forms.

Adjectives rarely appeared in the language samples of the pre-school participants and were therefore not considered for further analysis. The *form* aspect of pronouns was discussed under 6.4.2 (Phrase structures) and will consequently not be included in this section. The same applies to the use of articles and quantifiers. Additional counts of instances of non-agreement between determiner and noun, and of cases where "the" was used as filler/substitute for other word types, revealed no examples for more than two participants per group. The related data is therefore not displayed in this section.

The results for possessive and plural forms of nouns appear in Table 6.33.

Table 6.33.   Noun morphology produced by pre-school participants

Noun morphology		N from each group displaying twice or more		
		Junior group	Middle group	Senior group
Possessive	s	0	0	1
	of	0	0	0
	unmarked	0	0	0
Plural	regular	3	4	8
	irregular	1	0	2

Plural marking of non-count nouns did not occur, nor was plural marking omitted when a count word occurred, as observed by Owens (2001:419-429) for African American speakers of English. The regular form of the plural appears to be *typical* (produced more than once by 80% of participants) in the Senior group, but this group does not display typical or noteworthy production of irregular plural forms.

Possessive suffixes for nouns did not occur more than once in the language sample of any of the pre-school participants except for one participant in the Senior group. This does not imply that possessives were generally unmarked, since examples of unmarked possessives or possessives indicated by "of" (the dog *of* my friend) did not occur more than once in any language sample. The possessive form did, however, occur for pronouns (see Tables 6.22 to 6.24).

Morphological saturation

Morphological saturation of noun phrases was investigated as a possible developmentally sensitive measure of morphological development in multilingual EAL pre-schoolers who may exhibit some idiosyncratic morphological rules.

Data for this analysis was obtained from two sources: the conversation language sample and the responses of the pre-school participants to Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (revised edition) (Kirk, McCarthy & Kirk, 1968). Where relevant, the two data sources will be distinguished by referring to *conversation sample* or simply *sample* and *test sample* or simply *test.*

The mean morphological saturation scores computed for the three groups of pre-school participants appear in Table 6.34.

Table 6.34.   Mean morphological saturation obtained from two sources for three groups of participants

Group	Source	Mean	SD	Suggested norm (-2SD to +2SD)
				No representative range could be determined.
Junior	*Sample*	70%	37.39	
	Test	38%	20.61	Scores for Junior group were too widely distributed to allow for use of the formula
Middle	*Sample*	81%	16.61	47.8 – 100%
	Test	53%	18.85	14.3 – 90.7
Senior	*Sample*	96%	24.83	46.3 – 100%
	Test	61%	13.06	34.9 – 87.1

Key:
SD = standard deviation
Sample = conversation sample
Test = test sample

Although the scores were more widely scattered for the Junior group than for the two older groups, the most salient finding from this analysis was that all the groups of pre-school participants obtained a higher morphological saturation score for the conversation setting than for the test.

This finding should be interpreted in the light of the content of the specific subtest regarding noun morphology. The items of Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities (ITPA) (revised edition) (Kirk, McCarthy & Kirk, 1968) involving *nouns* require the respondent to provide *plural* and *possessive* forms. From Table 6.32 it was obvious that the pre-school participants in the current research were not inclined to produce possessive forms of nouns during their conversations with the research assistant, while the production of regular plural forms was *typical* for the members of the Senior group only.

The fairly high morphological saturation score, then, demonstrates that although the pre-school participants in the Middle and Junior groups did not *typically* produce plural forms, these forms were mostly correctly produced when they did appear.

The clear developmental trend observed in the morphological saturation scores is illustrated in Figure 6.6.
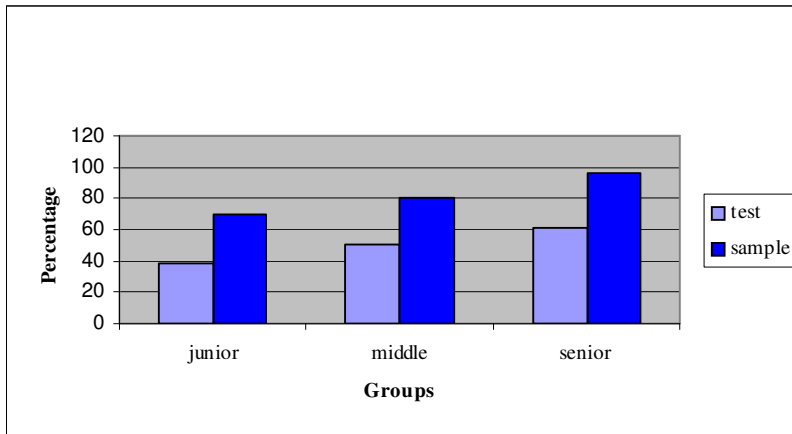
Figure 6.6. **Mean morphological saturation for three groups from two data sources**

Inspection of the raw data provided interesting insights into the various aspects of saturation displayed in the noun phrases produced by the pre-school participants. Besides the *saturated* noun phrases where the required compulsory marking was evidenced, noun phrases were also marked as *saturated without marking* where marking was not compulsory (noun phrase consisted of noun/pronoun alone). Noun phrases were marked as *unsaturated* where some unspecified compulsory item was omitted, and as *incorrect* when incorrect marking was present. A further possibility was noted in the conversational samples of the participants, namely *superfluous marking*, for example:

drinking the juice (no previous reference to juice) (participant M16).

Figure 6.7 demonstrates the developmental trends observed for these various possibilities. The mean number of instances produced by the participants in each age group for each possibility is displayed.
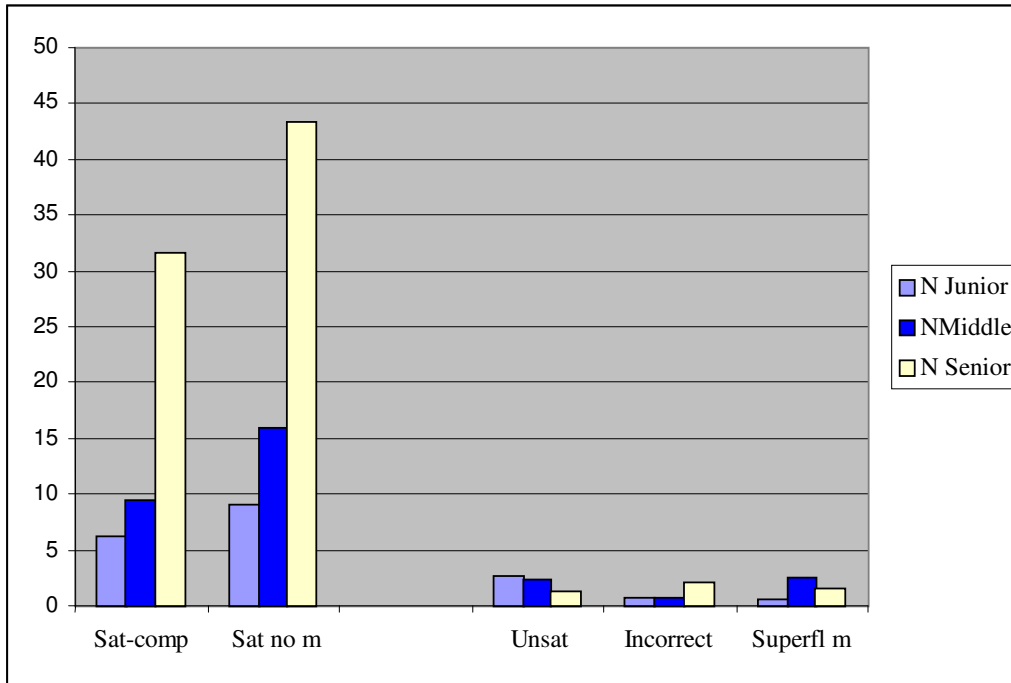
Figure 6.7.   Developmental trends for aspects of morphological saturation

Key:
N Junior = mean number of instances produced by Junior group
N Middle = mean number of instances produced by Middle group
N Senior = mean number of instances produced by Senior group
Sat comp = saturated noun phrase with compulsory marking
Sat no m = saturated noun phrase with no marking required
Unsat = unsaturated noun phrase
Incorrect = incorrect marking of noun phrase
Superfl m = superfluous marking of noun phrase

Whereas a clear developmental progress was noted for the saturated noun phrases, both marked and unmarked, the unsaturated noun phrases demonstrated a diminishing trend that can also be interpreted as a developmental tendency. The noun phrases with incorrect or superfluous markings showed no clear trend. However, their production demonstrated a low frequency of occurrence. The pre-school participants did not appear to find the noun phrase structure of English a formidable obstacle.

The information regarding noun phrase saturation, although informative for interpreting the data regarding noun morphology, does not contribute sufficiently to warrant inclusion in the *Profile*. The information regarding noun morphology to be carried over to the *Profile* will be the following:

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Profile summary 10 – Noun morphology

Group	Noteworthy behaviour (50-70% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)		No typical behaviours could be identified
Middle group (5-0 to 5-11)		No typical behaviours could be identified
Senior group (6-0 to 6-11)		Regular plural used appropriately Example: I opened my presents (S21)

6.6. Mean length of utterance (MLU)

As in the case of syntactic complexity, two sets of data were utilised for computing MLU. The term *conversation sample* will be used to refer to the language sample from the elicited conversation, and the term *test sample* will refer to the language sample obtained by means of the picture cards, as well as additional response utterances to Items 11-14, from the KLST-2 (Gauthier & Madison, 1998).

The MLU for the three age groups was calculated in morphemes and in words, for each of the two sets of data (conversation sample and test sample). Results are displayed in the tables and graphs to follow.

Table 6.35. **Mean MLU in words and in morphemes from 2 sources for 3 groups of participants**

Groups	Sample MLU-w	Test MLU-w	Sample MLU-m	Test MLU-m
Junior	2.7	3.6	3.1	3.9
Middle	3.3	4.4	3.6	4.9
Senior	4.4	6.2	4.9	6.8

Key to table:
Sample: conversation sample as source
Test: language test as source
MLU-w: mean MLU for group, calculated in words
MLU-m: mean MLU for group, calculated in morphemes.

A clear developmental trend was observed for MLU calculated in both morphemes and words. This trend is graphically illustrated in Figure 6.8.

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Mean MLU from conversation sample   Mean MLU from test sample

■ MLU in morphemes
■ MLU in words
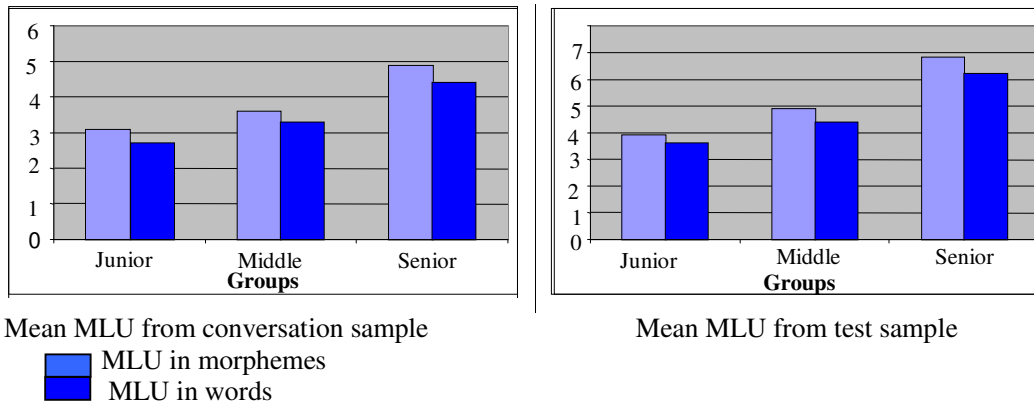
Figure 6.8.   Mean MLU from two samples for 3 groups of participants

Both Table 6.35 and Figure 6.8 portray a steady increase in MLU with increase in age, as reported in the literature for typically developing children (Hoff, 2005:29).   The MLU as calculated from the test might have been inflated because although all of the utterances produced in response to the sequence cards were utilised, the additional utterances from Items 11-14 of the KLST-2 (Gauthier & Madison, 1998) included only those that were clauses (i.e. contained verbs).   Nonetheless, the two sources of data demonstrated similar growth curves, which indicated that the MLU increased as the children grew older.

Table 6.36 displays the range of MLU for the three age groups when calculated in morphemes and in words.   The longest MLU (calculated in both morphemes and words) for the conversation sample was noted for a member of the Middle group, and the shortest for a member of the Senior group.   Two alternative solutions presented themselves.   These two extreme values could be removed (Ehlers, 2005) and the formula *mean +/-2SD* reapplied, or the typical range could be calculated as between the 10th and 90th percentiles (Steyn *et al.*, 1994:127).   The results for both of these alternatives are illustrated in Table 6.36.

Table 6.36.   Adapted range of MLU from conversation sample for three age groups (in morphemes and in words)

Group	Min	Max	Size of range	SD	Mean MLU-m	Suggested norm (mean -/+ 2SD)	Range of occurrence representative of group (10th to 90th percentile)
Junior	1.8	4.6	2.6	1.0	3.1	1.1 – 5.1	1.9 – 4.4
Middle	2.2	4.5	2.3	0.8	3.6	2 – 5.2	2.5 – 4.5
Senior	3.1	6.6	3.5	1.2	4.9	2.5 – 7.3	3.1 – 5.8
Group	Min	Max	Size of range	SD	Mean MLU-w	Suggested norm (mean -/+ 2SD)	Range of occurrence representative of group(10th to 90th percentile)
Junior	1.5	4.3	2.8	1.0	2.7	0.7 to 4.7	1.6 – 4.2
Middle	2	4.1	2.1	0.7	3.3	1.9 to 4.7	2.1 – 4.1
Senior	2.9	6.1	3.2	0.9	4.4	2.6 to 6.2	2.9 – 5.4

Key:
Min = minimum MLU noted for age group
Max = maximum MLU noted for age group
Mean = mean MLU for age group as a whole
SD = standard deviation

The adapted group MLUs for the Junior and Middle groups of participants were all less than 4 and therefore may be regarded as a significant measure of language development for these two age groups (Pan, 1994:28). If the MLUs in Table 6.36 are accepted as being typical for the three age groups, then a MLU of either *less than two standard deviations below the mean* or *below the 10th percentile* would be an indication of discrepancy (Steyn, Smit, Du Toit & Strasheim, 1994: 138, 127). The suggested *minimum norm values* for the three groups would then be as indicated in Table 6.34.   Since the typical range indicated by the application of *10th to 90th percentile* is somewhat smaller than that indicated by the application of the formula *mean -/+2SD,* this more conservative suggested norm was adopted.

For the conversation sample, a marked similarity was found between the MLU for morphemes and for words in each of the three groups of participants. It would appear, therefore, that for a conversation language sample teachers could use MLU as calculated in words as a measure of language development, especially for the age groups 4-0 to 4-11 (Junior group) and 5-0 to 5-11 years (Middle group).

For a language sample collected by other means, the situation was somewhat different. For the test sample, one member of the Junior group produced a MLU (calculated in both morphemes and words) that was far longer than that of the rest of the group, and a member of the Middle group produced a MLU (calculated in both morphemes and words) that was far shorter than that of the rest of the group. When these two extreme values were removed (Ehlers, 2005) and the formula *mean +/-2SD* reapplied, or alternatively the typical range calculated as between the 10th and 90th percentiles (Steyn, Smit, Du Toit & Strasheim, 1994:127), the results obtained are illustrated in Table 6.37.

Table 6.37.   Adapted range of MLU from test sample for three age groups (in morphemes and in words)

Group	Min	Max	Size of range	SD	Mean MLU-m	Suggested norm (mean –/+ 2SD)	Range of occurrence representative of group (10th to 90th percentile)
Junior	1.4	6.8	5.4	1.9	3.7	X	2-6.8
Middle	3.5	7.1	3.6	1.5	5.2	2.2 – 8.2	2.8-6.9
Senior	5.1	9.2	4.1	1.4	6.8	4 – 9.6	5.3-8.6
Group	Min	Max	Size of range	SD	Mean MLU-w	Suggested norm (mean –/+ 2SD)	Range of occurrence representative of group(10th to 90th percentile)
Junior	1	6.3	5.3	1.7	3.2	X	1.2-6.3
Middle	2.2	6.7	4.5	1.5	4.7	1.7 – 7.7	2.2-6.1
Senior	4.7	8.8	4.1	1.4	6.2	3.4 - 9	4.8 - 7.8

Key to Table:
Min = minimum MLU noted for age group   Max = maximum MLU noted for age group
Mean MLU-m = mean MLU for age group as a whole calculated in morphemes
Mean MLU-w = mean MLU for age group as a whole calculated in words
SD = standard deviation
X = no representative range could be determined

It was not possible (Table 6.37) to determine a suggested minimum norm for MLU with the formula *mean-/+2SD* for the Junior group for a language sample elicited by means of the KLST-2 (Gauthier & Madison, 1998). The application of *10th to 90th percentile* inevitably produced a representative range. As in the case of the conversation sample, the representative MLU range suggested by this application is more conservative and was therefore adopted.

In contrast to the MLUs calculated from the conversation language sample of the pre-school participants, the MLUs for the test sample calculated in words and in morphemes differed. MLU in words and in morphemes therefore had to be considered separately for the samples collected by means of the test stimuli. The data indicates a greater measure of morphological complexity for the test sample than for the conversation sample, as reflected in the finding that, for the test sample, the MLU calculated by mean -/+2SD in *morphemes* is 0.5 to 0.6 longer than the MLU calculated in *words*, whereas the difference was 0.1 throughout for the conversation sample.
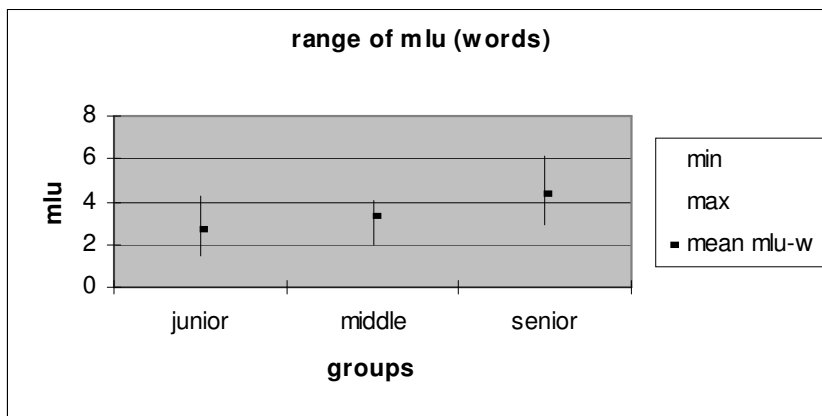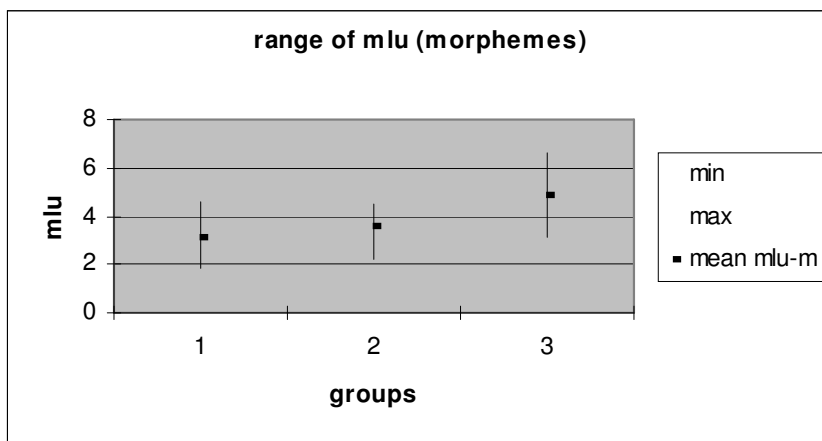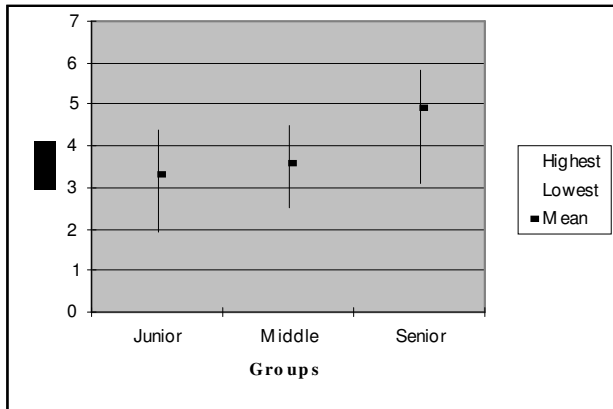
The MLU (calculated in morphemes) for young American English speakers reported in the literature is approximately 1.99 at age 21 to 31 months, ranging to 4.5 at age 41 to 52 months (adapted from Hoff, 2004:208). The MLU in English (calculated in morphemes) for the EAL pre-school participants in a conversation setting ranged from 1.9 at age 48 months, to 5.8 at age 72 months and older, with a MLU of 4.5 appearing at 60 months and older. It would seem that the participants in the current research attained MLUs comparable to those of their American English counterparts aged approximately 20 months younger.

Information to be carried over to the *Profile* regarding the typical MLU range for EAL pre-schoolers will be the following:

Profile summary 11 - MLU

MLU calculated in morphemes		
	Conversation	**Test**
Group	**Range of occurrence representative of group (10th to 90th percentile)**	**Range of occurrence representative of group (10th to 90th percentile)**
Junior group (4-0 to 4-11)	**1.9 – 4.4**	**2-6.8**
Middle group (5-0 to 5-11)	**2.5 – 4.5**	**2.8-6.9**
Senior group (6-0 to 6-11)	**3.1 – 5.8,**	**5.3-8.6**

MLU calculated in words		
Group	**Conversation**	**Test**
	Range of occurrence representative of group (10th to 90th percentile)	**Range of occurrence representative of group (10th to 90th percentile)**
Junior group (4-0 to 4-11)	1.6 – 4.2	1.2-6.3
Middle group (5-0 to 5-11)	2.1 – 4.1	2.2-6.1
Senior group (6-0 to 6-11)	2.9 – 5.4	4.8 - 7.8

6.7.   Conclusion

The investigation of aspects of language *form* has yielded diverse results. In some cases there were clear indications of typical language behaviours and developmental trends. In other instances no typical language behaviours could be found. A *representative range* of MLU was identified for all three age groups.

However, it cannot be assumed automatically that the list of typical behaviours relating to language form is necessarily *meaningful.* In a certain sense, there is value in the finding that some assumptions, for example those regarding the use of unconventional gender forms of pronouns, appear to have been discounted. On the whole the true utility of the data will have to be proven in practice. The main value of the results from this section lies in the initiation of a database on English language form (syntactic and morphological structures as well as length of utterances) typically found in the language production of EAL pre-schoolers.

6.8.   Summary

This chapter provided a schematic representation of the presentation and discussion of the research results. The various methodological phases were related to the stated objectives of the research, and an indication was provided of the respective chapter where each aspect is to be put forward. The aspects of the language dimension of *form* that were identified in Chapter 4 as significant on account of their relationship to either language impairment or EAL, were investigated as they appeared in the language behaviour of the pre-school participants

In order to obtain some impression of the overall *potential utility* to be obtained from this section, the results that showed typical language behaviours for any of the three groups of pre-school participants were collated (Table 6.38).

Table 6.38. **Typical language behaviours relating to *language form* identified in EAL pre-schoolers**

Aspects/ structures	Typical behaviours identified		
	Junior group	*Middle group*	*Senior group*
Syntactic complexity	Simple sentences	Simple sentences	Simple sentences
Syntactic structures		SVO	"Yes" SV (subject-verb) SVA (subject-verb-adverbial) SVO (subject-verb-object)
Noun phrase		DN PrepDN	DN PrepDN
Verb phrase	Is/was/am + verb + -ing		Is/was/am + verb + -ing
Pronoun phrase		"I"	"I", "me", "my" "They"
Morphology of main verbs		Verb stem (grammatically acceptable/unacceptable)	Verb stem (grammatically acceptable/unacceptable) Progressive aspect
Subject-verb agreement		Subject-verb agreement for 1st person singular	Subject-verb agreement for: 1st person singular 3rd person singular 3rd person plural Subject-verb non-agreement for 3rd person singular
Noun morphology			Regular plural
MLU morphemes:	Conversation 1.9 – 4.4 Test 2-6.8	Conversation 2.5 – 4.5 Test 2.8-6.9	Conversation 3.1 – 5.8 Test 5.3-8.6
MLU words: Conversation	Conversation 1.6 – 4.2 Test 1.2-6.3	Conversation 2.1 – 4.1 Test 2.2-6.1	Conversation 2.9 – 5.4 Test 4.8 - 7.8

It is apparent from Table 6.38 that a number of *typical language behaviours* appeared in the Senior group of pre-school participants, somewhat fewer in the Middle group, and only two forms of typical behaviour occurred in the Junior group. It is likely that the results regarding language form will be useful in planning assessment of English

language behaviours in EAL pre-schoolers aged 5-0 to 5-11 and especially in those pre-schoolers aged 6-0 to 6-11.

CHAPTER 7

RESULTS AND DISCUSSION: LANGUAGE CONTENT

AIM:
To present and discuss the aspects of language *content* identified in the language behaviour of the pre-school participants, to distinguish the aspects of language content that appeared *typically* in the language production of the three age groups, and to evaluate the potential utility of this information by considering the results to be carried over to the *Profile*.

Language content produced by the pre-school participants

7.1.   Introduction

The aspects of the language dimension of *content* that were identified in Chapter 4 as significant on account of their relationship to either language impairment or EAL, were investigated as they appeared in the language behaviour of the pre-school participants.

The first aspect of language content addressed in this chapter concerns two facets of the content of *verbs*. The use of *general all-purpose* (GAP) verbs was investigated to determine the potential variety of verb forms used by the pre-school participants to express activities and experiences. The use of *cognitive state verbs* was explored to ascertain whether the pre-school participants made use of these verbs to express their knowledge of mental events.

The main portion of this chapter deals with word counts. Besides the total number of words and the number of different words produced by each pre-school participant during the 20 minutes of conversation with the research assistant, separate counts of verbs produced and of nouns produced were also analysed. The purpose was to determine whether any representative range could be determined that could be proposed as a point of reference for typical language behaviour of EAL pre-schoolers in similar communicative contexts.

It should not be construed as the intention of this chapter to imply that language content refers only to words, and especially not that an indication of language content

can be derived from word counts. The aspects reported on in this chapter simply represent a limited number of accessible language behaviours relating to language content. Word counts (including the counts of GAP verbs and cognitive state verbs) were considered to be data gathering activities that could be conveyed with minimum training to pre-school teachers in the teacher-therapist teams operating in EAL pre-schools. The results that were obtained can be used as a starting point or groundwork for other more profound analyses.

For each subsection, the *description of the results* is followed by a *discussion* and a subsequent indication of the information to be carried forward to the *Profile.*   The discussion, as in the case of language *form,* is intended to relate the results obtained to associated information in the literature.

7.2.   Language content: verbs

The dimension of language concerned with rules governing the meaning or content of words or grammatical units is also known as *semantics* (Owens, 2001:475). Studies pertaining to semantic features in the language of children with specific language impairment have tended to concentrate mainly on the word level, particularly on the vocabulary diversity displayed by these children, although some researchers have begun to explore the semantic fields represented by verbs (Johnston, Miller & Tallal, 2001:350). Some semantic characteristics of verbs in the language samples of the EAL pre-schoolers are discussed first, followed by aspects of their vocabulary diversity.

7.2.1. General all-purpose (GAP) verbs

The literature provides examples of GAP verbs in the language production of typically developing young children and young children with SLI (Conti-Ramsden & Jones 1997). These lists of GAP verbs include the following monosyllabic words: *come, do, get, give, go, got, have, know, look, make, open, play, put, see, take, want*. The language samples examined in the current research did not contain as many examples of verbs used in a general all-purpose fashion, but the verbs that were found coincide to a large extent with entries in these lists. The following were identified as possible

GAP verbs in the conversation sample of the pre-school participants: *take, put, do, go* (Tables 7.1 and 7.2):

Table 7.1.   Verbs identified as GAP verbs in the language sample of pre-school participants

Verb	General meaning deduced from context	Examples	N producing	Total productions
Take	Indefinite action with an object	(*What is she doing*?) Is take this (J3)	9 (J=3, M=3, S=3)	11
		Mommy is taking a cake (J4)		
		(*What did the doctor do*?) He's taking an injection (J4)		
		(*Why did it happen*?) This man is take this (J6)		
		And other one takes the simbas (M11)		
		Because another one, they take to me the sand (M13)		
		(*And what happened at the shop*?) They take, they take a bread (M13)		
		Take me in injection (M16)		
		He took the injection in here (S23)		
		And he take my stomach and do like this (S26)		
		(*What's this one doing*?) Is..is taking cake (S28)		
Put	Action upon a person (usually actions of others upon self)	My mommy is put me to doctor (J4)	6 (J=1, M=2,, S=3)	8
		He put me injection (m15)		
		Put me in another doctor (M16)		
		(Relating grisly murder) put him inside the house and just cut him (S23)		
		And they give me medicine…they put for me and then they give me and then I stop coughing (S24)		
		He put me this thing here (S29)		
		They put in the bandage (S29)		
		They put me a bandage (S29)		
Do	Perform	Is doing the birthday (J5)	3 (J=1, M=1, S=1)	3
		He did do me an injection (M17)		
		He do me like this (S27)		
Come of	Receive, have, experience	I come of my birthday party in the crèche (M14)	1 (M)	3
		(*Did you get any presents*?) No, I didn't come of the presents (M14)		
		(*Did your mother give you a present?*) No, I come of two cakes (M14)		

Key:
J=Junior group, M=Middle group, S=Senior group
N producing=number of participants who produced the specified verbs

The verbs *take, put* and *do* were used by participants in all three age groups. The use of *come of* was restricted to one participant only (participant 1 in the Middle group) and could therefore not be considered a GAP verb for the pre-school participants in general.

Observations during clinical activities at various schools and pre-schools in the urban area of Pretoria indicated that the expressions *go like this/that* and *do like this/that* seem to be in general use among young speakers of English. These expressions also appeared in the conversational language sample of the pre-school participants (Table 7.2).

Table 7.2.   The verbs go/do produced by pre-school participants

Verb	General meaning deduced from context	Examples	N producing	Total N productions
Go like this/that	Perform action as demonstrated	Another man going like this (J10)	3 (J=1, M=1, S=1)	3
		When I go like this, it's sore (M14)		
		Go like that (S26)		
Do like this/that, do this/that	Perform action as demonstrated	Then I do this, it's sore (S23)	5 (S=5)	13
		He do like this (S26)		
		And he take my stomach and do like this (S26)		
		He do like that to me (S26)		
		They do like this (S26)		
		I was doing like that (S26)		
		And another one he do like that (S26)		
		They are doing like this (S27)		
		She do like this (S29)		
		You must do like this (S30)		
		Then I was up and I do like this (S30)		
		Then they do like this to me (S30)		
		Then I do like this to me (S30)		

Key:
J=Junior group, M=Middle group, S=Senior group
N producing=number of participants who produced the specified verbs

Go appeared in the language samples of one participant out of each age group, while the use of *do* was found only among the participants in the Senior group. A summary of the results for use of GAP verbs by the three groups of pre-school participants is provided in Table 7.3.

Table 7.3.   **Summary of the results for use of GAP verbs by the three groups of pre-school participants**

Groups	N participants for each verb					
	Take	Put	Do	Come (of)	Go like	Do (like)
Junior	1	0	0	0	0	0
Middle	2	0	0	1	0	0
Senior	0	1	0	0	0	2

Key:
N participants = number of participants in a group who used a specific verb more than once.

From Tables 7.1, 7.2 and 7.3, it appears that GAP verbs did occur in the language samples of the participants, but for the most part as characteristic of specific individuals. No typical language behaviour relating to GAP verbs was identified for the three groups of pre-school participants.

7.2.2. *Cognitive state terms*

Cognitive state verbs form only one aspect of language content, but are regarded by some researchers as significant indicators of semantic development (Johnston *et al*., 2001:355). The following cognitive state terms (Table 7.4) were identified in the language samples of the pre-school participants:

Table 7.4.   **Cognitive state verbs used by the pre-school participants**

	I think	I guess	Let me think	I don't know	I don't know what…	I don't remember
Junior group						
n once	1			2		
n 1+				2		
Middle group						
n once	1			2		
n 1+				2		
Senior group						
n once		1	1	4	1	1
n 1+						

Key to Table 6.40
N once= number of participants in group who used a specific verb once
N 1+= number of participants in a group who used a specific verb more than once.

The routinised use of "I don't know", which was not counted as an instance of the category *cognitive state verbs* in research reported in the literature (Johnston *et al.,* 2001: 363), was included in Table 7.4 to illustrate the higher frequency of occurrence when compared to other cognitive state verb use. Even "I don't know", however, could not be regarded as appearing *typically* or even to a *noteworthy* extent in conversations between the EAL pre-schoolers and the research fieldworker.

Johnston, Miller and Tallal (2001:363) reported the use of the cognitive state verbs *know, think, understand, pretend,* and *remember* by pre-school children with typical language development. It might have been possible to elicit these verbs from the EAL pre-schoolers with specially designed strategies, but only *think, guess, know,* and *remember* appeared (and only infrequently) in the structured conversations recorded for the current research. The *act of pretending* was implied in utterances such as:

We are sleeping (= we pretend we are sleeping) (participant S 27, Senior group)

I lift my hands that I'm Superman (= to pretend that I'm Superman) (participant S 30, Senior group).

However, the verb *pretend* was not used. The verbs *think, guess, remember,* and *know* were all used to refer to the pre-school speaker's own cognitive state, not to the listener or a third party.

Children with SLI have been reported to use cognitive state verbs less frequently than children with typical language development (Johnston *et al*., 2001: 363). For EAL pre-schoolers in the multilingual urban context of the current study, however, this statement cannot serve as a clinical indicator, due to the infrequent use of cognitive state verbs by typically developing children in this population.

The semantic features of verbs were conjectured to be a promising area of inquiry to gain information about representative *content* aspects of the pre-school participants' language, but no behaviours typical of any age group could be identified. Although certain verbs were characteristically used by specific individuals, no information was

deemed sufficiently representative to be carried over to the *Profile*. However, since it would be important to know that low frequency of cognitive state verbs should *not* be used as an indicator of language disorder, the following note was made:

Profile summary 12: Cognitive state verbs

Group	*Typical behaviour (80%+of group)*
Junior group (4-0 to 4-11)	**80%+ of the participants in this age group did not use cognitive state verbs**
Middle group (5-0 to 5-11)	**80%+ of the participants in this age group did not use cognitive state verbs**
Senior group (6-0 to 6-11)	**80%+ of the participants in this age group did not use cognitive state verbs**

7.3.   Word counts

The results for this section are presented in the same categories as those adopted in the discussion of the method for word counts (Chapter 4).

7.3.1. *Total number of words and total number of different words (TNW and TDW), Type-token ratio (TTR)*

While it seems obvious that EAL learners could have fewer lexical items in their English lexicon than English first language (L1) learners (Owens, 1999:111), there is no data available on the *typical* characteristics regarding TNW and TDW for the EAL population.   An apparently limited TDW might seem to suggest a language impairment, whereas in fact it could be a typical phenomenon for this population. It was therefore important to determine the typical distribution. For the calculation of these word counts, only the words occurring in the conversation sample of each participant were used. The results are displayed in Table 7.5, as well as Figures 7.1 and 7.2.

Table 7.5.   **TNW, TDW and TTR for three age groups of pre-school participants**

Group		TNW	TDW	TTR
Junior group	Total	705.00	330.00	
	Mean	70.50	33.00	0.47
	Median	47.00	29.50	0.57
	Range	8 – 161	3 – 77	0.19 - 0.88
	S D	57.53	24.11	0.22
	Proposed norm	X	X	X
Middle group	Total	963.00	494.00	
	Mean	96.30	49.40	0.51
	Median	102.50	53.50	0.53
	Range	43 – 143	23 – 65	0.37 – 0.69
	S D	36.26	13.22	0.09
	Proposed norm	23.8 – 168.8	22.96 – 75.8	0.33 – 0.69
Senior group	Total	2785.00	727.00	
	Mean	278.50	72.70	0.26
	Median	254.00	75.00	0.29
	Range	43 – 143	19 – 176	0.21 – 0.67
	S D	141.92	25.63	0.14
	Proposed norm	X	21.44- 123.96	X

Key: S D = standard deviation
X = representative range could not be determined

The scores for the Junior group were too widely distributed to allow for the calculation of a proposed typical distribution. When the single low score on TNW for members of the Senior group of participants was removed (Ehlers, 2005) and the formula *mean +/- 2SD* reapplied, the following results were obtained:

Mean TNW   278.5
Range 166 - 472
Standard deviation 119.5
Proposed typical distribution of TNW: 39.5 – 517.5

Although a TNW range could be calculated in this way, it was too wide to be of practical use. The suggested norms for the Middle group also seemed to be too wide when compared to the minimum and maximum scores that were obtained.

When the range of 10th to 90th percentile as suggested by Steyn, Smit, Du Toit and Strasheim (1994:127) was determined, more conservative figures were obtained (Table 7.6) but it is advised that these proposed norms be used with caution, as they may still be very wide.

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Table 7.6.   **Comparison between two proposed norms for word counts in three groups of participants**

Groups	Word count measurements					
	TNW		TDW		TTR	
	A	*B*	*A*	*B*	*A*	*B*
Junior	X	9-154	X	7-49	X	.30-.78
Middle	23.8 – 168.8	51-142	22.96 – 75.8	33-63	0.33 – 0.69	.45-.65
Senior	X	166-439	21.44-123.96	53-99	X	.21-.34

Key:

A = calculated as *mean – 2 standard deviations (SD) – mean + 2SD*

B = calculated as *10th percentile – 90th percentile*

X = representative range could not be determined

The developmental trend for both TNW and TDW, however, appears clearly in Figures 7.1 and 7.2.
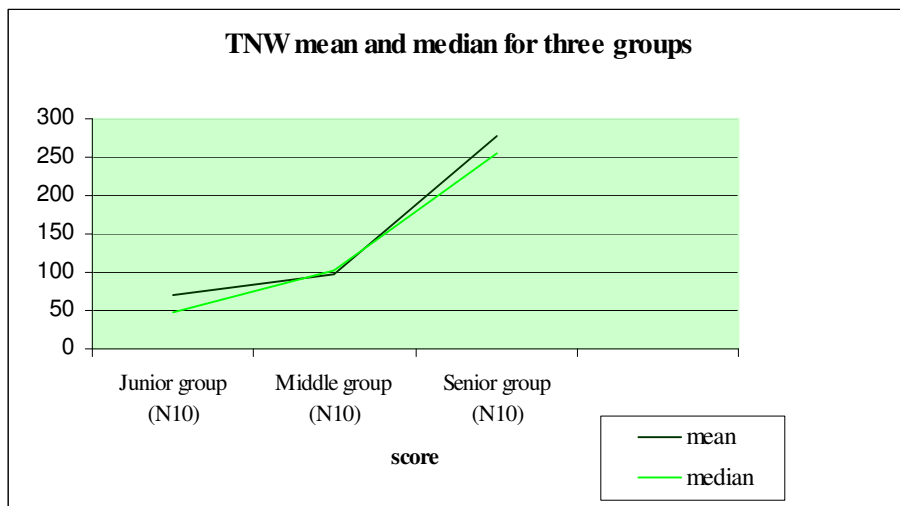
Figure 7.1.   **TNW means and medians for three age groups**
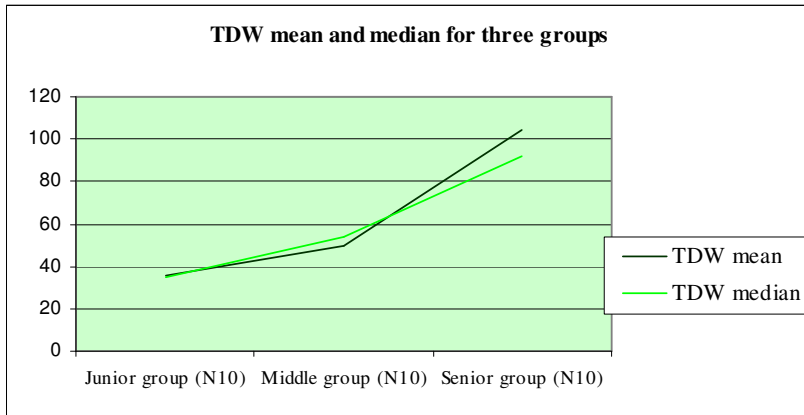
Figure 7.2.   TDW means and medians for three age groups

For both TNW and TDW an increase with age was noted in the mean as well as the median (Figure 7.1 and Figure 7.2).   This indicated that both general language proficiency and semantic diversity show development over time in this population, with an increase in the rate of development at the pre-school stage (age 6 to 6-11 years).

The range of scores for both TNW and TDW was widest for the Senior age group (6 to 6-11 years) and smallest for the Middle group (5 to 5-11 years). The Middle group seemed to be the most homogeneous group. This was also reflected in the scatter of scores for the three groups. Figure 7.3 illustrates the scatter of TNW scores for each age group separately.
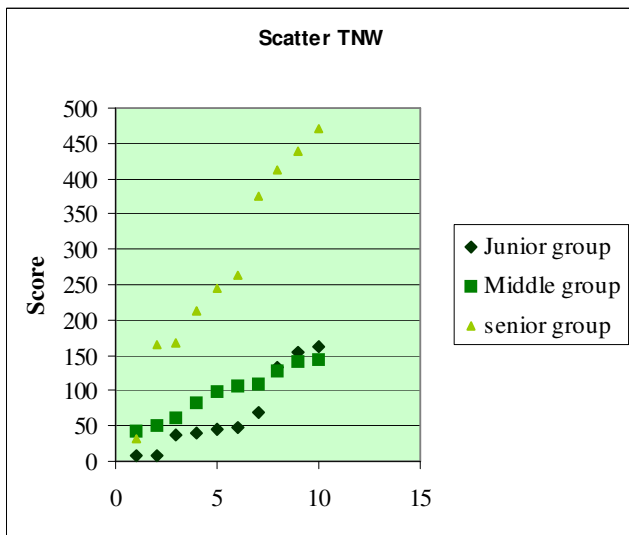
Figure 7.3.   Scatter of TNW scores for three age groups

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For the Junior group, the largest number of scores (5) was grouped around 40 – 65. The current data suggests that this would be the range within which the mean TNW score for a large population of this age (3 to 4 years) would be found.

For the Middle group, the TNW scores exhibited a fairly even spread from 40 to 144, with a relatively contained range. For this group, the mean TNW score of 96.3 is probably an indication of the mean score that would be found in a large population of this age.

For the Senior group, the largest number of scores (5) were grouped around 155 – 255. The current data suggests that this would be the range within which the mean TNW score for a large population of this age (4 to 5 years) would be found. However, a second grouping of four scores was found in the range 355 – 455, which explains the wide spread of scores indicated by the standard deviation.

The ratio of TDW to TNW showed a decrease with increase in age of the pre-school participants, reflecting the fact that the *total number* of words produced showed a greater increase with age than the *total number of different* words (Figure 7.4).
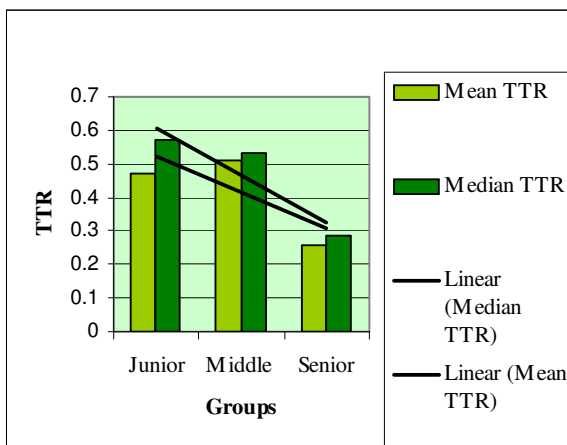
Figure 7.4.   TTR means and medians for three age groups

Typical American English children between 2 and 8 years have been found to demonstrate TTRs of between 0.42 and 0.50 (Klee, 1992:28; Owens, 1999:192). The lower TTR (mean 0.26) of the group of participants aged 6 to 6-11 years (Senior group) may indicate that their vocabulary development lags behind their development

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of general language proficiency. They may even be described as having a "restricted vocabulary" (Owens, 1999:184). However, this does not indicate a language impairment for these EAL pre-school learners, since it was the typical TTR found for this group. Although true representative ranges could only be determined for the Middle group and for TDW in the Senior group, it is noteworthy that the mean TNW for all groups was less than one third of the TNW reportedly produced by similar-aged groups of American English children within 20 minutes of conversation (Owens, 1999:192). The proviso, however, is that the expected TNW, TDW and TTR indicated below for the three age groups of pre-school EAL participants are valid for a conversation elicited by means of a specific picture stimulus (Minskoff, Wiseman & Minskoff, 1972) and a specific conversational map (Tönsing, 1998:17; Rollins, McCabe and Bliss, 2000).

The information regarding TNW, TDW and TTR to be carried over to the *Profile* will be the following:

Profile summary 13: TNW, TDW, TTR

Group	*Range of occurrence representative of group (10th – 90th percentile) and mean for group*		
	TNW	*TDW*	*TTR*
Junior group (4-0 to 4-11)	9 - 154 Mean TNW 70.5	7 - 49 Mean TDW 33.0	.30 - .78 Mean TTR 0.47
Middle group (5-0 to 5-11)	51 - 142 Mean TNW 96.3	33 – 63 Mean TDW 49.4	.45 - .65 Mean TTR 0.51
Senior group (6-0 to 6-11)	166 - 439 Mean TNW 278.5	53 - 99 Mean TDW 72.7	.21 - .34 Mean TTR 0.26

7.3.2. *Total number of verbs and total number of different verbs (TNV and TDV)*

Children with SLI have been found to use fewer verbs and fewer different verbs than typically developing children (Conti-Ramsden & Jones, 1997). Data for the *typical EAL population* is therefore required, to serve as point of reference for determining what would constitute a limited verb usage in this population. For the calculation of TNV and TDV in the population included in the current research, only the verbs occurring in the *conversation sample* of each participant were used.

TNV

The total number of verbs (excluding auxiliaries and copula) produced by the pre-school participants during the conversation with the research assistant were counted and the mean calculated for each age group. The results are presented in Table 7.7.

Table 7.7.   Mean number of verbs produced by pre-school participants.

Group	Mean	SD	Min	Max	Mean –2SD to mean +2SD
Junior	11.6	7.7	2	26	*No representative range could be determined*
Middle	16.7	6.1	8	30	4.5 – 28.9
Senior	43.9	22.3	8	76	*No representative range could be determined*

No representative range calculated by means of standard deviation could be determined for the Junior and Senior groups, since the scores were too widely distributed, as may be seen in the scatter of scores for each group (Figures 7.5 to 7.7).
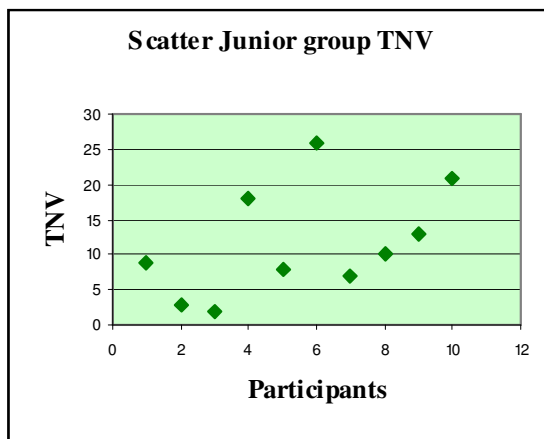
Figure 7.5.   Scatter of TNV scores for Junior group

It is clear from Figure 7.5 that the TNV scores for the Junior group were too widely scattered to permit determination of a representative range by means of the standard deviation. The use of the range between the 10th and 90th percentile (Steyn *et al.,* 1994:127) was indicated.
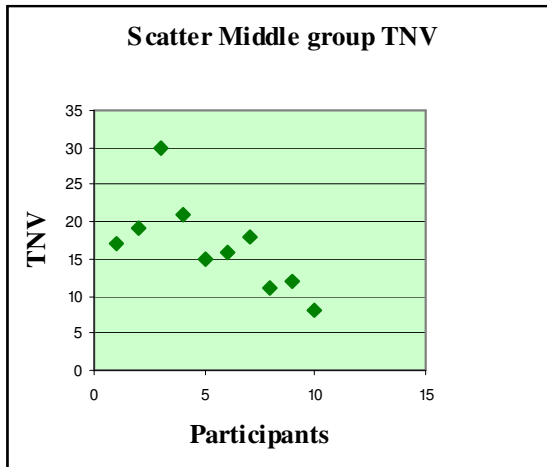
Figure 7.6.   Scatter of TNV scores for Middle group

Figure 7.6 shows a single exceptionally high TNV score for the Middle group. Although a representative distribution could be determined from the scores as illustrated in Figure 7.5, it would also be possible to eliminate the highest score and then calculate the TNV again (Ehlers, 2005).
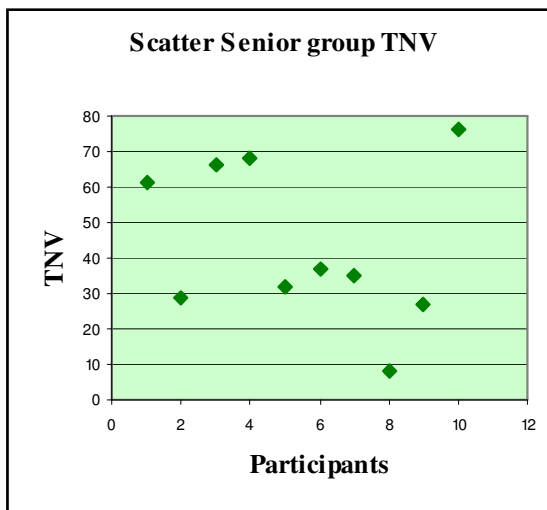
Figure 7.7.   Scatter of TNV scores for Senior group

It was possible to eliminate the single lowest score and the single highest TNV score for the Senior group (Figure 7.7) and re-calculate a typical distribution (Ehlers, 2005). A more realistic range was obtained for the Middle group, but the range for the Senior group probably remains too wide to be of practical use. When the range of 10th to 90th percentile as suggested by Steyn *et al.* (1994:127) was determined, more conservative

figures were obtained but, as in the case of TNW, TDW and TTR, it is advised that these proposed norms be used with caution, as they may still be very wide. The modified results for TNV for all three age groups of participants are presented in Table 7.8.

Table 7.8.   Modified TNV for pre-school participants

Group	Mean	Min	Max	Mean –2SD to Mean +2SD	10th to 90th percentile
Junior	11	2	26	*No representative range could be determined*	*3 – 21*
Middle	47.89	8	21	6.86 – 23.58	11 – 21
Senior	44.38	27	68	9.44 – 79.34	27 - 61

TDV

The mean number of different verbs produced in the conversation sample for each group of participants is indicated in Table 7.9.

Table 7.9.   Mean number of different verbs produced by the three groups of pre-school participants

Group	Mean	SD	Min	Max	Mean –2SD to mean +2SD
Junior	7.7	4.4	1	14	*No representative range could be determined*
Middle	10.1	2.6	5	13	4.9 – 15.3
Senior	23.1	12	5	38	*No representative range could be determined*

Once again, it was necessary to investigate the scatter of TDV scores for the three groups of participants (Figure 7.8 to Figure 7.10).
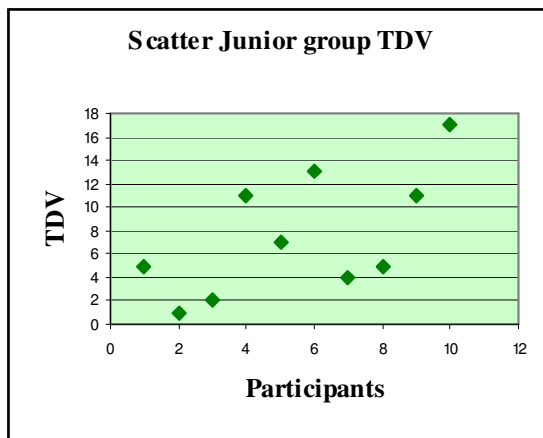
Figure 7.8.   Scatter of TDV scores for Junior group

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It appears (Figure 7.8) that the TDV scores for the Junior group were too widely scattered to determine a truly representative range with the use of the standard deviation.
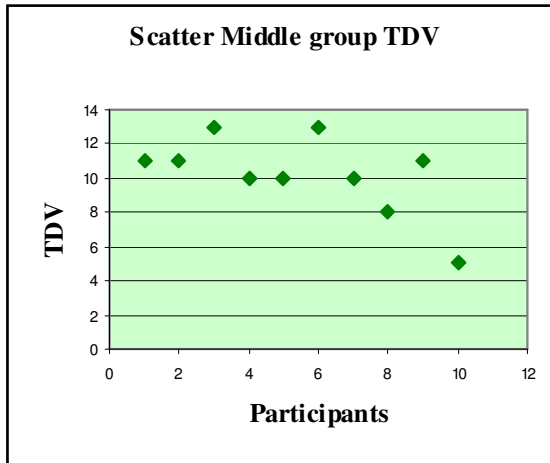
Figure 7.9.   Scatter of TDV scores for Middle group

Figure 7.9 shows one low TDV score for the Middle group, which could be eliminated to allow for re-calculation of the mean and standard deviation (Ehlers, 2005).

The modified results for the Middle group were then:

Mean TDV   10.78
Standard deviation   1.56
Representative range of TDV   7.66 - 13.9

Since this latter range represents more or less the total range from minimum to maximum score, it is realistic but may need to be refined by further research.
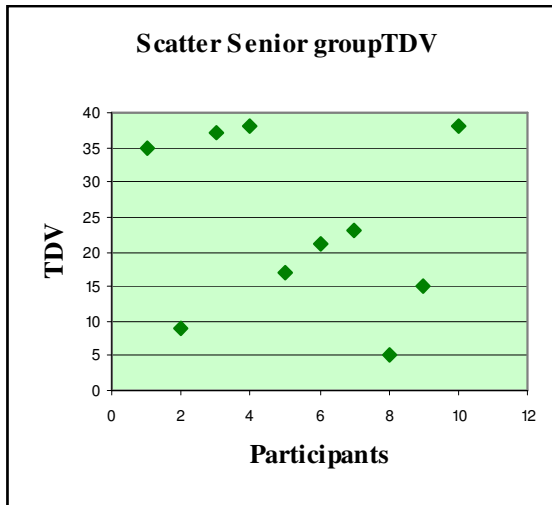
Figure 7.10. Scatter of TDV scores for Senior group

As in the case of the Junior group, the TDV scores for the Senior group were too widely scattered (Figure 7.10) to allow for the calculation of a representative range with the use of the standard deviation. The use of the range from the 10th to the 90th percentile (Steyn *et al.*, 1994:127) was once again indicated. The modified results for TDV for all three age groups of participants are presented in Table 7.10.

Table 7.10.   Modified TDV for pre-school participants

Group	Mean	Min	Max	Mean –2SD to mean +2SD	10th to 90th percentile
Junior	7.7	1	14	*No representative range could be determined*	2 – 13
Middle	10.1	5	13	4.9 – 15.3	8 – 13
Senior	23.1	5	38	*No representative range could be determined*	9 - 38

To allow a more equitable comparison between the three age groups of pre-school participants, the number of different verbs (TNV) was expressed as a percentage of total number of verbs (TNV) The results of these calculations are displayed in Table 7.11.

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Table 7.11.   **Mean TDV expressed as percentage of mean TNV for each age group of participants**

Group	Mean TNV	Mean TDV	Mean TDV as % of mean TNV
Junior	11.6	7.7	66.4
Middle	16.7	10.1	60.5
Senior	43.9	23.1	52.6

Some interesting observations could be made on the basis of the information in Table 7.11.   When the trend lines appearing in Figures 7.11 and 7.12 were compared, a developmental trend was observed for both TNV and TDW, while TDV expressed as percentage of TNV declined over age.   This means that the younger EAL speakers exhibited a larger proportion of different verbs in their total corpus of verbs than the older EAL speakers.   This statement, however, has to be interpreted against the much lower TNV for the two younger groups in comparison to the TNV for the Senior group.   When verbs are used infrequently, even a relatively small corpus of verbs may exhibit a low frequency of distribution per entry and consequently a large proportion of use of different verbs.
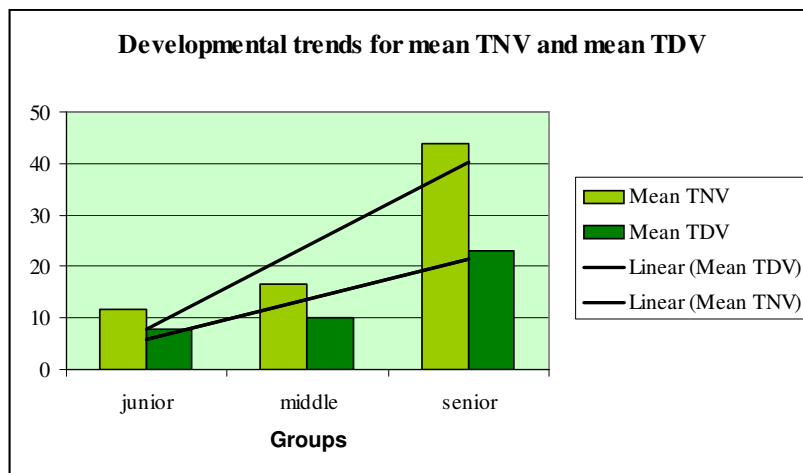
Figure 7.11. Developmental trends in mean TNV and mean TDV
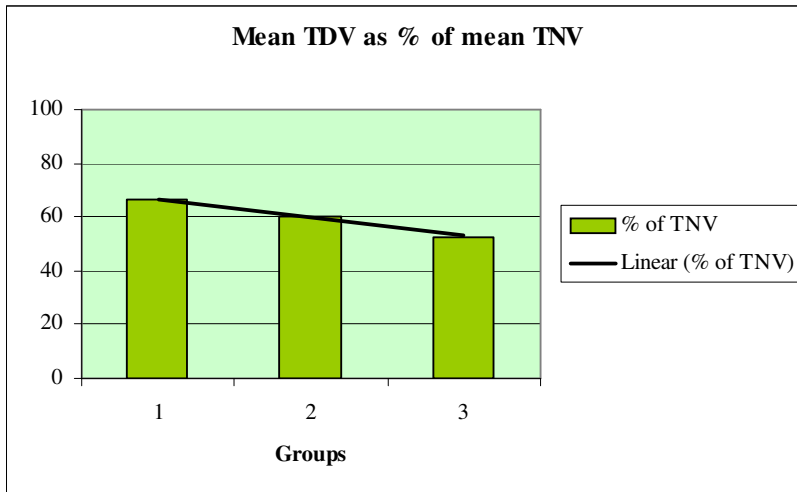
Figure 7.12. Developmental trend for mean TDV expressed as percentage of mean TDV

When TNV was expressed as percentage of the total number of words produced (TNW), a developmental trend was observed in the increase in mean TNV as well as mean TNW (Figure 7.13), while the mean TNV as percentage of TNW remained virtually the same over the three age groups (Figure 7.14). It appeared, therefore, that the percentage of words consisting of verbs (auxiliaries and copula excluded) remained the same with an increase in age and in language development. The cautionary observation concerning the apparent large proportion of different verbs in the language sample of participants in the Junior group is justified by this finding.
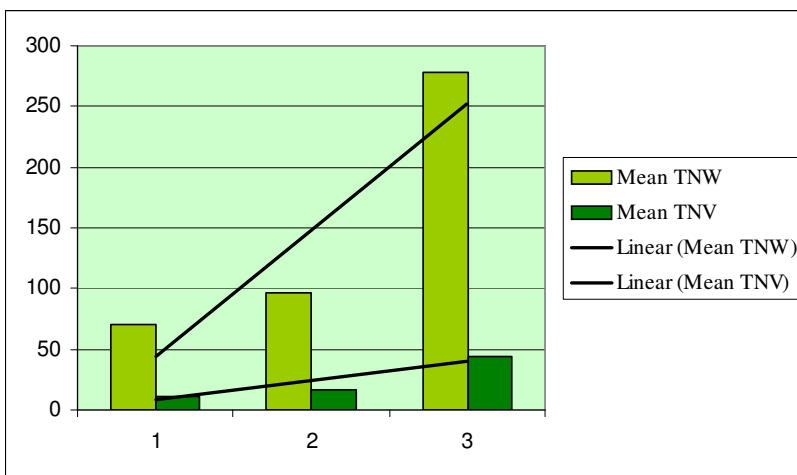
Figure 7.13. Comparison between developmental trends in mean TNW and mean TNV for three age groups

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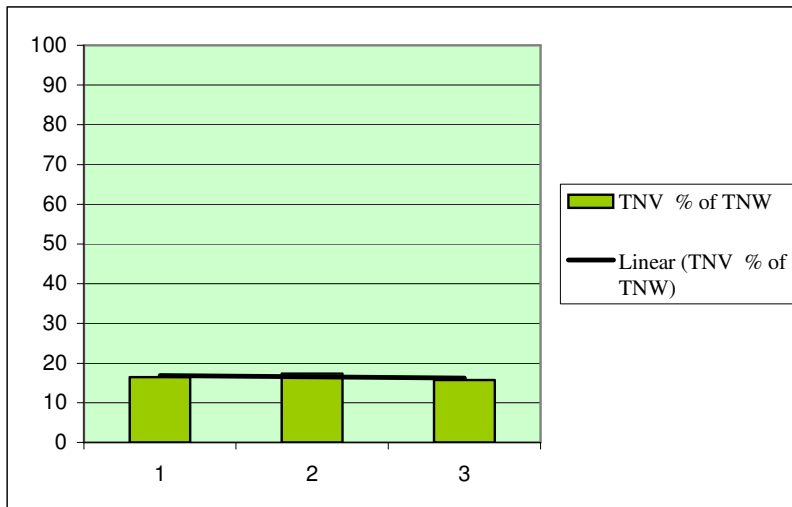
Figure 7.14. Mean TNV expressed as percentage of mean TNW over three age groups

7.3.3. Total number of nouns (TNN)

Although the noun system of English seems to present fewer difficulties to children with SLI than has been found for verb structures (Conti-Ramsden & Windfuhr, 2002:19), it is nevertheless of some interest to researchers, who have studied the development of lexical and grammatical categories in children with normal language development (Nelson,1973), bilingual children (Bland-Stewart & Fitzgerald, 2001) and children with SLI (Conti-Ramsden,2002). Conti-Ramsden & Jones (1997) compared the total number of nouns produced to the total number of words produced by children with SLI. They report that children with SLI produce proportionately more nouns, perhaps because they produce fewer verbs (Conti-Ramsden & Jones, 1997:1298). The TNN count was included in this section to obtain a norm for the EAL learners in this regard.

As in the case of verbs (TNV and TDV), the TNN scores of the pre-school participants were divergent (Figures 7.15 to 7.17).
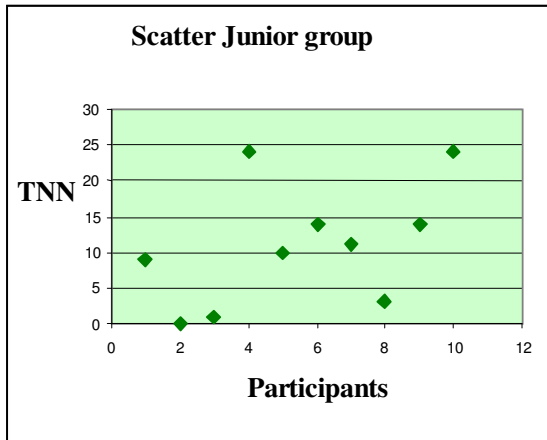
Figure 7.15. Scatter of TNN scores for Junior group

The participants in the Junior group exhibited a very wide scatter of scores (Figure 7.15) which made it impossible to determine a representative range of TNN scores with the use of the standard deviation.   The scores for the Middle group were distributed in a narrower range than for Junior group (Figure 7.16).
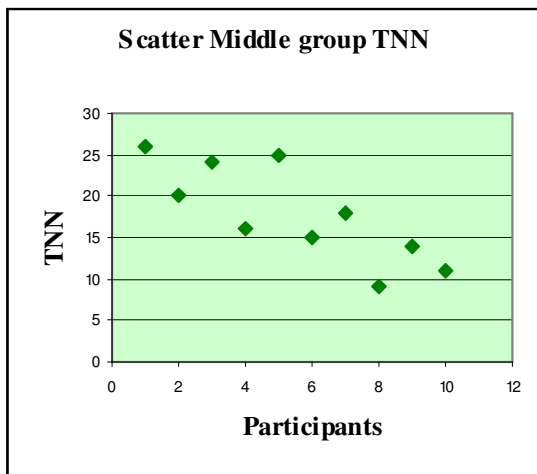
Figure 7.16. Scatter of TNN scores for Middle group
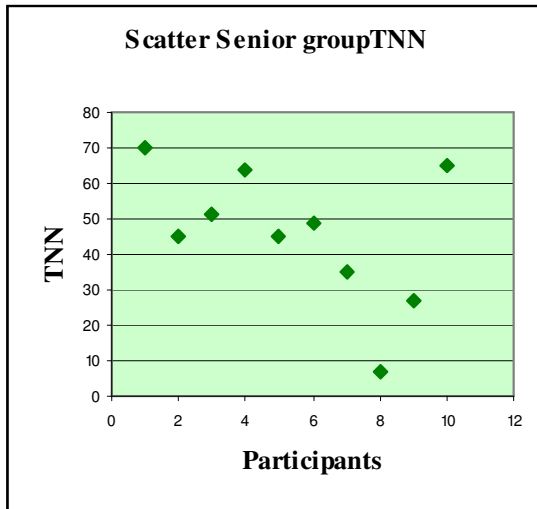
Figure 7.17. Scatter of TNN scores for Senior group

In the case of the Senior group (Figure 7.17), one very low score was found, which could be eliminated (Ehlers, 2005) before calculating the representative distribution of TNN scores. The possible alternatives for suggested representative ranges of TNN scores for the three groups of participants appear in Table 7.12.

Table 7.12.   Representative range of TNN scores for three groups of participants

Group	Mean	SD	Min	Max	Mean-2SD to Mean+2SD	10th to 90th percentile
Junior	11.2	8.4	0	24	*No representative range could be identified*	*1 - 20*
Middle	17.8	5.9	9	26	6 – 29.6	11 - 25
Senior	45. 8	19.1	7	70	7.6 - 84	27 - 65
Senior modified	50.11	14.26	27	70	21.59 – 78.63	

When the range was calculated with the formula *mean–2SD – mean+2SD*, a more realistic range was obtained for the Senior group when the lowest score was eliminated, but it is obvious from Table 7.12 that both the range proposed for the Middle group and the modified range for the Senior group go beyond the maximum and in the case of the Middle group also beyond the minimum scores obtained by the pre-school participants. These figures can consequently not be regarded as representative of the TNN produced by these pre-school participants. The range between the 10th and the 90th percentile (Steyn *et al.*, 1994:127), which represents the

scores obtained by 80% of each age group, would therefore be more appropriate in this case as well.

For the purpose of comparison between groups and between representation of lexical classes (nouns and verbs), the TNN as such is of less interest than the TNN expressed as a percentage of the TNW. When TNN was calculated as percentage of total number of words produced, the results depicted in Table 7.13 were obtained.

Table 7.13.   TNN calculated as percentage of TNW for three groups of participants

Group	Mean TNW	Mean TNN	TNN % of TNW
Junior	70.5	11.2	15.9
Middle	96.3	17.8	18.5
Senior	278.5	50.11	18

As in the case of TNV, a developmental trend was to be seen in the increase in total number of words as well as total number of nouns with increase in age (Figure 7.18), but the percentage of TNW made up of nouns remained relatively unchanged (Figure 7.19). The EAL pre-schoolers appeared to be acquiring lexical items from various categories at a comparatively similar rate.
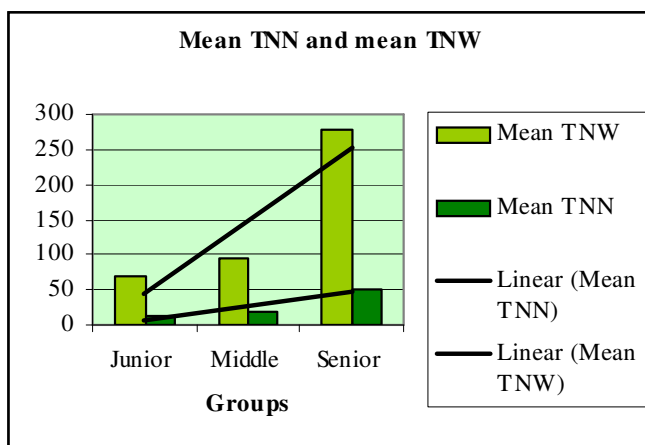
Figure 7.18. Developmental trends in TNN and TNW for three age groups
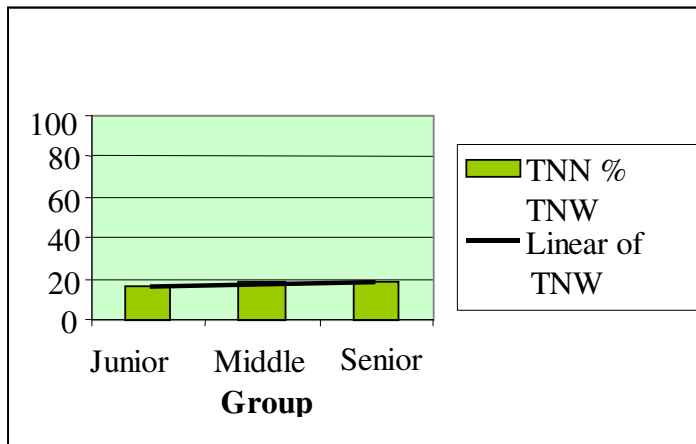
Figure 7.19. Developmental trend of TNN expressed as percentage of TNW for three age groups

Research reported in the literature appears to demonstrate mostly that there are individual differences in the lexical development of young children, with respect to both the size and the content of the lexicon (Hoff, 2005:180). However, most of the work on individual differences in children's lexical development has focused on vocabularies at the 50-word mark (Nelson, 1973; Hoff, 2005: 154). Some children acquire a higher percentage of nominals than others but in general children acquire more nominals than action words in the early stages of language development (Hoff, 2005: 155).

When the percentages of the total number of words comprising verbs and nouns were compared for the three groups of participants (Figure 7.20), the percentage verbs was slightly higher than the percentage nouns in the language production of participants in the Junior group, but this order was reversed in the Middle group. The percentage verbs and nouns was approximately the same in the language production of participants in the Senior group. In all cases the difference between nouns and verbs as well as the difference between the age groups did not amount to more than 2.5%. Despite the diversity inlexical development found by researchers and discussed by Hoff (2005:180), and also the wide scatter of lexical scores depicted in Figures 7.8 to 7.10 and 7.15 to 7.17, the EAL pre-school participants demonstrated overall a steady developmental increase in both the numbers of nouns and verbs in their lexicons, with no preference for either of these lexical categories.

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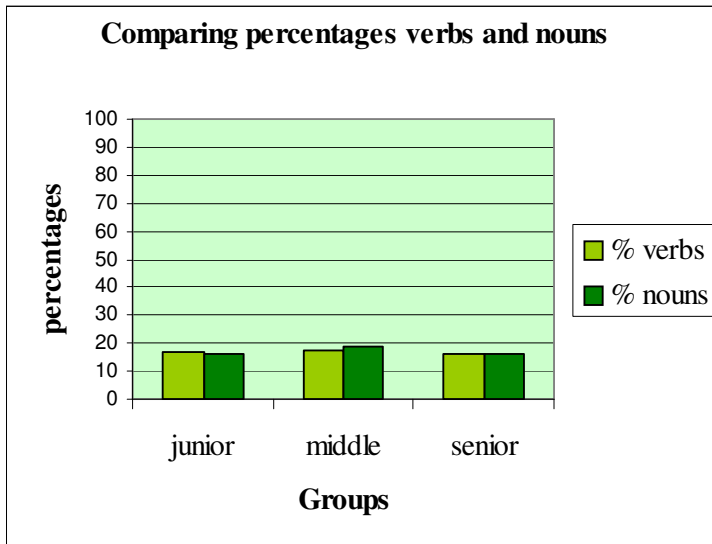
Figure 7.20. Percentages nouns and verbs in the total number of words produced by three groups of participants

Children's language experience, including the amount of language they hear, the nature of the language they hear and to what extent the language interest is related to their focus of attention, affects their lexical development (Hoff, 2005: 158 – 160). The measure of correspondence between the age groups with regard to their lexical development in EAL may be related to the fact that these participants were all acquiring English in the same pre-school setting.

The information regarding TNV, TDV and TNN to be carried over to the *Profile* will be the following:

Profile summary 14: TNV, TDV, TNN

Group	Range of occurrence representative of group (10th to 90th percentile)		
	TNV	TDV	TNN
Junior group (4-0 to 4-11)	3- 21	2 – 13	1 – 20
Middle group (5-0 to 5-11)	11 – 21	8 – 13	11 – 25
Senior group (6-0 to 6-11)	27 - 61	9 - 38	27 - 65

These ranges will only be relevant for the context in which the word counts were carried out, namely a conversation elicited by means of the conversational map to

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invite personal experience narrative (in this case, the topics were *going to the doctor/ my pets* - Tönsing, 1998:17; Rollins *et al.*, 2000).

The information regarding mean TNV and mean TNN as percentages of TNW will also be carried over to the *Profile*:

Profile summary 15: Mean TNV and mean TNN as percentage of mean TNW

Group	*Mean TNV as percentage of mean TNW*	*Mean TNN as percentage of mean TNW*
Junior group (4-0 to 4-11)	15.9%	16.5%
Middle group (5-0 to 5-11)	18.5%	17.3%
Senior group (6-0 to 6-11)	18%	18%

Further research is required to determine whether these percentages apply for more general conversation contexts between adults and EAL pre-schoolers.

7.4.   Conclusion

Although the semantic features of verbs were initially regarded as a potential source of information about representative *content* aspects of the pre-school participants' language, no behaviours typical of any age group could be identified. However, it was noted that low frequency of cognitive state verbs in the specific conversational context should *not* be used as an indicator of language disorder in this population, since more than 80% of all participants did not use cognitive state verbs in their conversations.

The size of the range for all word counts was smallest for the Middle group and largest for the Senior group. The Middle group of pre-school participants appeared to be the most homogeneous group with regard to the words represented in their language samples.

These results, although presented with a word of caution because of the diversity encountered, may yet be of value in planning assessment directed at determining the possible presence of atypical language *content* in EAL pre-schoolers.

7.5.   Summary

The dimension of *language content* was examined by determining the number of words and the respective numbers of two different word classes (verbs and nouns) in the language produced by the EAL pre-school participants. The word counts in each case showed a wide scatter of scores for participants in the various age groups. These scores were mostly too widely scattered to allow the determination of a representative range with the formula *mean –2SD to mean +2SD*. However, the clear developmental trends that appeared justified the transfer of information to the *Profile* regarding the range representing 80% of the participants in each age group (10th to 90th percentile). For the purpose of comparison between groups and between representation of lexical classes (nouns and verbs), the TNV and the TNN were expressed as a percentage of the TNW.

The results with respect to typical language behaviour in this section are summarized in Table 6.14. The size of the range for all word counts is provided in brackets in each case.

Table 7.14.   Summary: Representative ranges of language behaviours relating to *language content* identified in EAL pre-schoolers

Word counts/ratios			Means and representative ranges identified		
			Junior group	*Middle group*	*Senior group*
General word counts and TTR		**TNW**	Mean 70.5	Mean 96.3	Mean 278.5
			Range 9 – 154 (145)	Range 51 – 142 (91)	Range 166 – 439 (273)
		TDW	Mean 33.0	Mean 49.4	Mean 72.7
			Range 7 – 49 (42)	Range 33 – 63 (30)	Range 53 – 99 (46)
		TTR	Mean 0.47	Mean 0.51	Mean 0.26
			Range 30 - .78 (48)	Range 45 - .65 (20)	Range 21 - .34 (13)
Specific lexical counts		**TNV**	3- 21 (18)	11 – 21 (10)	27 – 61 (34)
		TDV	2 – 13 (11)	8 – 13 (5)	9 – 38 (29)
		TNN	1 – 20 (19)	11 – 25 (14)	27 – 65 (38)
Comparative percentages		***Mean TNV as percentage of mean TNW***	16%	19%	18%
		Mean TNN as percentage of mean TNW	17%	17%	18%

CHAPTER 8

RESULTS AND DISCUSSION: LANGUAGE USE EVIDENCED BY THE EAL PRE-SCHOOL PARTICIPANTS

AIM:
To present and discuss the aspects of language *use* identified in the language behaviour of the pre-school participants, to distinguish the aspects of language use (relating to intent or functions of communication, rules of conversation and narratives, and adapting to conversation partners or contexts) that appeared *typically* in the language production of the three age groups and to evaluate the potential utility of this information by considering the results to be carried over to the *Profile*.

Language use demonstrated by the pre-school participants

8.1   Introduction

The aspects of the language dimension of use or pragmatics (Owens, 2001:474) that were identified in Chapter 4 as significant on account of their relationship to either language impairment or EAL, were investigated as they appeared in the language behaviour of the pre-school participants. The results are presented below, together with a discussion of each set of results. In accordance with the areas of pragmatic behaviour put forward by the American Speech-Language-Hearing Association ([ASHA], 1990) and indicated in Figure 1.3 (Chapter 1), the areas to be discussed include using language for various functions, adapting to the listener, and adhering to conversational and narrative conventions.

8.2   Variety of responses/spontaneous utterances produced

Conversational rules or conventions include turn taking, responsivity to the conversational partner, and appropriate conversational behaviour (American Speech-Language-Hearing Association [ASHA] 1990). The first section of this analysis considers the nature of the utterances produced as conversational turns by the pre-school participants, in an attempt to determine the variety of response types or spontaneous utterances that might be regarded as produced typically by EAL pre-schoolers during a conversation with a speech-language therapist in the pre-school

setting.   The conversations between the pre-school participants and the research fieldworker provided the data for this analysis.

Although the analysis focused on the pre-school participants, it was necessary to first note the adult's turn as a question, a command or instruction, the presentation of a visual stimulus, or a response to the child's utterance. Only then could the utterance/s in the child's conversational turn be categorised. A set of categories was devised on the basis of a preliminary review of all the language samples obtained from the pre-school participants, and on discussions of conversation behaviour in the literature (Hoff, 2005:266-267; Owens, 2001:154-157; Owens, 1999:279-281). The categories utilised for this analysis, and the abbreviations to be used in the discussion, are the following:

SU	spontaneous initiating utterance (initiating a conversation or a new topic)
VSR	response to visual stimulus (picture)
QR/CR	response to question/command/instruction
Cf	confirmation of information requested
Sf	spontaneous follow-up by child of own response
FR/ER	follow-up response to adult's reaction, or response to encouragement, interjection, acknowledgement of speaker produced by adult
NR	no response or no attempt to maintain conversation.

These responses or spontaneous utterances were regarded as positive attempts by the pre-school participants to maintain the conversation, with the exception of NR, which indicated failure to respond to the adult's conversation initiatives. Table 8.1 displays the total number of participants in each age group who produced more than one example of each type of response.

Table 8.1.   Number of participants in each group producing more than one example of each type of response

Group	Type of response						
	SU	VSR	QR/CR	Cf	Sf	FR/ER	NR
Junior	0	1	9	0	5	2	5
Middle	1	0	10	0	2	0	6
Senior	1	1	10	2	9	7	5

Almost all of the pre-school participants (the exception being one member of the Junior group) produced responses to the questions or instructions of the research fieldworker (QR/CR). This may therefore be regarded as typical behaviour for these pre-school EAL learners. For participants in the Senior group, spontaneous follow-up of own responses (Sf) was also found to be typical, while following up non-question utterances of the adult partner (FR/ER) occurred to a noteworthy extent. Not yielding a response to follow on to the adult's turn (NR) was found to be noteworthy behaviour for all groups of pre-school participants. Conversational behaviour by the pre-school participants was therefore characterised by both participatory and to a lesser extent non-participatory conduct.

Only one participant in each of the Junior and Senior groups, and none in the Middle group, produced more than one conversational turn that was a direct response to a visual stimulus (VSR). The low frequency of occurrence of the category VSR means that the repeated use of a visual stimulus (picture) to elicit conversation was typically not required.

A comparison of the total number of participants producing one or more responses in these four categories, and also the mean number of responses produced in the respective categories, yielded the following (Figures 8.1 and 8.2):
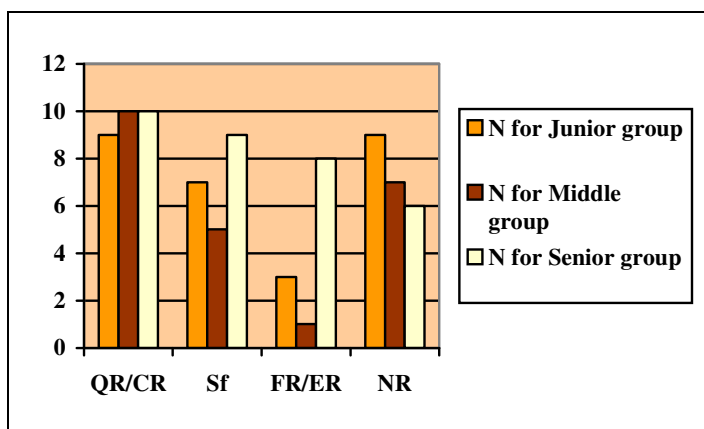
Figure 8.1.   Number of participants in each group for four response categories
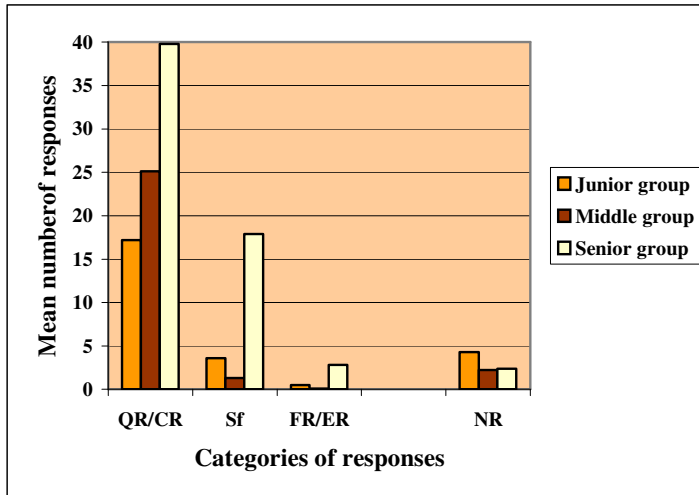
Figure 8.2.   Mean number of responses in four categories

From the visual representation (Figure 8.1) it is obvious that the Senior group has the largest number of participants in the three categories describing a positive response in the conversation (sharing this position with the Middle group in the category QR/CR), and the smallest number of participants delivering No Response (NR). From a developmental perspective, the positive response types follow a generally increasing trend, while No Response shows a decline. The mean number of responses in each category (Figure 8.2) mirrors the pattern displayed by the number of participants in each category (Figure 8.1) and thereby confirms the developmental pattern.

When considering the information to be carried over to the Profile, it is obvious that an indication of the percentage of responses in each category (calculated as percentage of the total number of responses produced by each participant) might provide information that could more easily be generalised than the number of responses per se. Tables 8.2 to 8.4 display the percentages for the three groups of participants, and for the categories identified as producing typical or noteworthy behaviour.

Table 8.2. **Types of responses calculated as percentage of total number of responses for Junior group**

Participant no.	Total responses	QR/CR	Sf	FR/ER	NR
J1	26	96.2%	0%	0%	3.8%
J2	6	0%	0%	0%	100%
J3	19	31.6%	0%	0%	68.4%
J4	38	73.7%	13.2%	5.3%	2.6%
J5	25	48%	20%	0%	28%
J6	38	50%	39.5%	5.3%	2.6%
J7	26	80.8%	3.8%	0%	15.4%
J8	24	50%	12.5%	0%	37.5%
J9	26	88.5%	3.8%	0%	3.8%
J10	36	72.2%	16.7%	2.8%	0%
Sum	264	591	109.5	13.4	262.1
Mean	26.4	59.1	10.95	1.34	26.21
SD	9.66	29.12	12.47	2.26	33.79
Range		0% – 96.2%	0% – 39.5%	0% – 5.3%	2.6% - 100%

SD = standard deviation

Table 8.3. **Types of responses calculated as percentage of total number of responses for Middle group**

Participant no.	Total responses	QR/CR	Sf	FR/ER	NR
M1	24	87.5%	4.2%	0%	0%
M2	29	89.7%	0%	0%	10.3%
M3	37	83.8%	13.5%	0%	0%
M4	19	68.4%	26.3%	0%	0%
M5	53	90.6%	0%	1.9%	7.5%
M6	31	90.3%	3.2%	0%	6.5%
M7	32	96.9%	0%	0%	3.1%
M8	24	87.5%	0%	0%	12.5%
M9	2	81.5%	0%	0%	14.8%
M10	17	58.8%	5.9%	0%	29.4%
Sum	293	835	53.1	1.9	84.1
Mean	29.3	83.5	5.31	0.19	8.41
SD	10.27	11.49	8.53	0.60	9.10
Range		68.4% – 90.6%	0% – 26.3%	0% – 1.9%	0% – 29.4%

SD = standard deviation

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Table 8.4.   Types of responses calculated as percentage of total number of responses for Senior group

Participant no.	Total responses	QR/CR	Sf	FR/ER	NR
S1	67	61.2%	26.9%	9%	0%
S2	57	71.9%	12.3%	0%	12.3%
S3	88	54.5%	42%	2.3%	1.1%
S4	91	52.7%	36.3%	4.4%	0%
S5	51	68.6%	25.5%	2%	3.9%
S6	65	67.7%	24.6%	6.2%	0%
S7	56	78.6%	12.5%	5.4%	3.6%
S8	31	64.5%	0%	6.5%	29%
S9	52	90.4%	3.8%	0%	5.8%
S10	76	39.5%	52.6%	7.9%	0%
Sum	634	649.6	236.5	43.7	55.7
Mean	63.4	64.96	23.65	4.37	5.57
SD	18.17	14.24	16.85	3.18	9.10
Range	31-91	39.5%-90.4%	0%-52.6%	0%-9%	0%-29%

SD = standard deviation

When the formula mean – 2SD to mean + 2SD was applied, the wide distribution of percentage scores made it impossible to determine representative ranges for the Junior group, and for all categories except QR/CR in the Middle and Senior groups (Tables 8.2 to 8.4). Once again, two possibilities were considered. The extreme values could be removed (Ehlers, 2005) and the formula mean +/-2SD reapplied, or the typical range could be calculated as between the 10th and 90th percentiles (Steyn *et al.*, 1994:127). As can be seen in Tables 8.5 to 8.7, the only way to determine a range that included 80% of the participants in each category for each age group was to use 10th percentile to 90th percentile.

Table 8.5.   Representative range for Junior group regarding percentage of utterances in various categories

Category	Mean – 2SD to mean +2SD	Lowest score removed: Mean – 2SD to mean +2SD	10th percentile to 90th percentile
QR/CR	X	X	31.6% – 80.8%
Sf	X	X	0% - 20%
FR/ER	X	X	0% – 5.3%
NR	X	X	3.8% – 68.4%

SD = standard deviation

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Table 8.6. **Representative range for Middle group regarding percentage of utterances in various categories**

Category	Mean – 2SD to mean +2SD	Lowest score removed: Mean – 2SD to mean +2SD	10th percentile to 90th percentile
QR/CR	X	70.2% – 99.8%	68.4% – 90.6%
Sf	X	X	0%- 13.5%
FR/ER	X	0	0
NR	X	X	0% – 14.8%

SD = standard deviation

Table 8.7. **Representative range for Senior group regarding percentage of utterances in various categories**

Category	Mean – 2SD to mean +2SD	Lowest score removed: Mean – 2SD to mean +2SD	10th percentile to 90th percentile
QR/CR	36.6% – 93.4%	47.6% – 82.4%	52.7% – 78.6%
Sf	X	X	3.8% – 36.3%
FR/ER	X	X	2% – 6.5%
NR	X	X	0% – 5.8%

SD = standard deviation

In addition to listing categories where typical behaviours were observed to occur, it was also important to note specific categories where behaviours did not occur. For example, the adults who assess language behaviour in EAL pre-schoolers should not expect spontaneous utterances (SU) or confirmation of information requested (Cf). One member of the Senior group (S21) did produce confirmation behaviour (as in the example to follow), but this was an exception.

Example of Cf:

S21

(Information requested: What are all the other children doing?)

<u>They?</u> One's sitting, one's playing and the other one's also playing.

The information regarding types of responses to be carried over to the Profile will be the following:

Profile summary 16: Responses/spontaneous utterances

Group	Range of occurrence representative of group (mean/median +/2SD)		
	Category	Representative range	Size of range
Junior group (4-0 to 4-11)	QR/CR	31.6% – 80.8%	49.2
	Sf	0% - 20%	20
	FR/ER	0% – 5.3%	5.3
	NR	3.8% – 68.4%	64.6
Middle group (5-0 to 5-11)	QR/CR	68.4% – 90.6%	22.2
	Sf	0%- 13.5%	13.5
	FR/ER	0	0
	NR	0% – 14.8%	14.8
Senior group (6-0 to 6-11)	QR/CR	52.7% – 78.6%	13.9
	Sf	3.8% – 36.3%	32.5
	FR/ER	2% – 6.5%	4.5
	NR	0% – 5.8%	5.8

8.3   Mazes

The language data from the conversation sample was scanned to identify instances of the following behaviours, which have been termed mazes because they tend to disrupt, confuse, and slow the progress of communication (Owens, 1999:177; Friel-Patti, DesBarres & Thibodeaux, 2001): false starts, reformulations, revisions, repetitions, and filled pauses. Table 8.8 displays the number of participants in each group who produced more than one utterance with each type of maze.

Table 8.8.   Number of children producing more than 2 utterances with a particular maze

Group	Number of participants producing more than 2 instances of:				
	False starts	Reformulations	Revisions	Repetitions	Filled pauses
Junior	1	0	0	5	0
Middle	2	2	0	1	1
Senior	6	3	0	10	5

The Senior group (age 6 to 6-11 years) produced the largest number of utterances with mazes. Half or more than half of the participants in the Senior group produced more than two utterances containing false starts, repetitions, and filled pauses.

The figures in Table 8.8 confirm that the following behaviours were demonstrated typically or to a noteworthy extent by the groups of participants.

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Junior group:	*repetitions* (marginally noteworthy – demonstrated by 50% of participants)
Middle group:	none
Senior group:	*repetitions* (typical – produced by 100% of participants)
	false starts (noteworthy – produced by 60% of participants)
	filled pauses (marginally noteworthy – demonstrated by 50% of participants)

Since children with SLI have been reported to produce a high frequency of mazes (Friel-Patti *et al.*, 2001), there should be some point of comparison as to the percentage of mazes that typically occurs in a specific population. Frequency of disruption is usually determined by calculating the frequency of mazes per 100 unmazed words (Owens, 1999:177). In the current research this would not be feasible in view of the relatively low TNW attained by the pre-school participants (Chapter 7). Table 8.9 and Figure 8.3 present the mean percentage of utterances containing each type of maze in the elicited language production of the three age groups.

Table 8.9.   Mean percentage of utterances containing mazes in three groups of children

Group	Mean percentage of utterances containing		
	false starts	*repetitions*	*filled pauses*
Junior group		5.7	
Middle group			
Senior group	4.2	12	3.7

The identified behaviours could act as clinical markers (indications of possible risk for language impairment) in the following way for the various age groups:

Junior group:	if repetitions occur in more than 5.7% of utterances
Middle group:	no typical behaviour
Senior group:	if false starts occur in more than 4.2% of utterances
	If repetitions occur in more than 12% of utterances
	If filled pauses occur in more than 3.7% of utterances.

The Senior group (6-0 to 6-11 years) rendered more data of clinical significance than the two younger age groups. The developmental trend for the occurrence of mazes is

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illustrated in Figure 8.3a and 8.3b. Figure 8.3a depicts the data for all participants, while the data from a single participant in the Middle group who produced excessively high scores was omitted in Figure 8.3b.
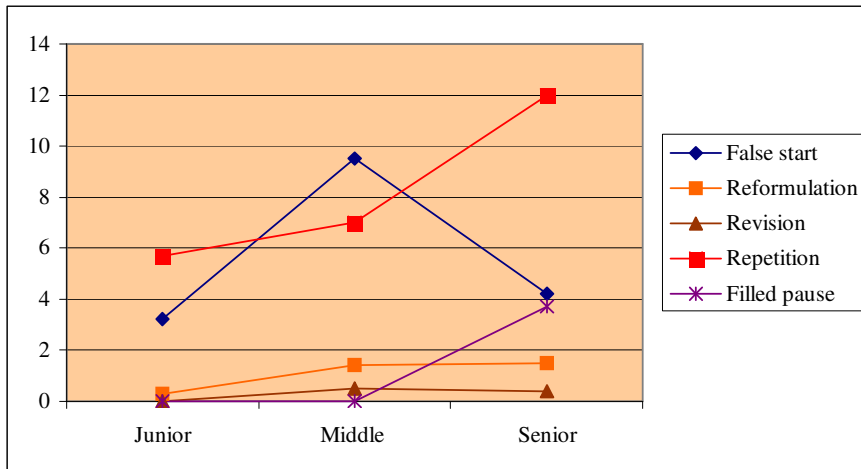
Figure 8.3a. Mean percentage of utterances containing mazes in three age groups (Junior group N=10, Middle group N=10, Senior group N=10)
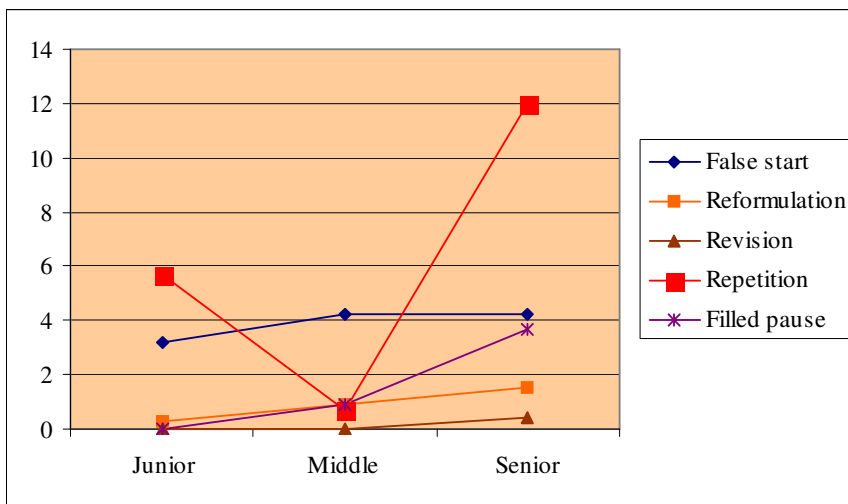
Figure 8.3b. Mean percentage of utterances containing mazes in three age groups (Junior group N=10, Middle group N=9, Senior group N=10)

The phenomenon of increase in the mean percentage of most of the types of mazes (the possible exception being false starts) may reflect the increased complexity of utterances in older children. Meeting cognitive and linguistic demands such as identifying increasingly complex topics in conversation and selecting appropriate words to express associated thoughts (Owens, 1999:166, 177) can lead to longer

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pauses and more extensive use of fillers. The number of participants producing more than two utterances containing a particular maze is illustrated in Figure 8.4.
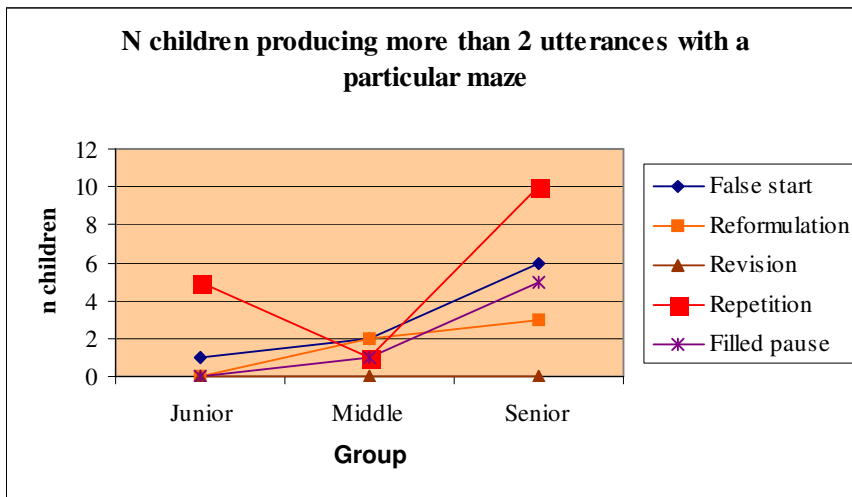
Figure 8.4. **Number of children in each of 3 age groups producing more than 2 utterances containing a particular maze**

In general, except for repetitions and revisions, a steady increase was observed in the number of participants producing the various mazes. The number of participants producing revisions was not noteworthy in any of the age groups. The number of participants producing repetitions was half of the group for the Juniors, only one for the Middle group, and the whole group for the Seniors. It may be that the repetitions produced by very young speakers are the result of lags in formulation or word finding attempts (Owens, 1999: 166), which decrease as they develop increased language ability. As development progresses, children may begin to use repetition as a strategy to gain time for formulation, especially in narratives (Owens, 1999:177).

The more noticeable appearance of filled pauses in the Senior group may similarly indicate advanced pragmatic awareness, in the sense that the child uses an acceptable ploy to retain the communicative turn while formulating a satisfactory utterance (Owens, 1999:177).

The information regarding mazes to be carried over to the Profile will be the following:

Profile summary 17: Mazes

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	Repetitions (occurring on average in 5.7% of utterances)	
Middle group (5-0 to 5-11)	No noteworthy behaviour identified	No typical behaviour identified
Senior group (6-0 to 6-11)	False starts (occurring on average in 4.2% of utterances) Filled pauses (occurring on average in 3.7% of utterances)	Repetitions (occurring on average in 12% of utterances)

8.4   Discourse devices

The discourse device investigated for pre-school EAL learners in conversation with an adult was the use of connectives as cohesive devices. The number of connectives per T-unit is regarded as a measure to rate good-to-poor narrative discourse (Owens, 1999:235). A T-unit (minimal terminal unit) is defined as a main clause plus any attached or embedded subordinate clause or nonclausal structure (Owens, 1999:487).

Investigation of the narrative discourse of the pre-school participants indicated that there was a low frequency of use of connective words. Table 8.10 displays the production of connective words by the three groups of participants during the conversation with the research fieldworker.

Table 8.10.   Production of connective words by the three groups of participants

Group	N participants producing more than one example of:		
	and	but	other
Junior	2	0	2
Middle	5	0	2
Senior	9	1	4

The only connective used to a noteworthy (Middle group) or typical (Senior group) extent was the connective "and", which is usually one of the first to appear in typically developing first language speakers of English (Hoff, 2005:204; Owens, 2001:338). The connective "but", which also appears early in typical development of English as

first language (Hoff, 2005:204), did not appear to a noteworthy extent in any of the age groups. Owens (2001:338) points out that, in the initial stages of language development, and is used as an all-purpose conjunction for temporal, causal, and adversative functions. This may also be true for EAL pre-schoolers who are in the early stages of acquiring English (see example from participant from Middle group in Profile summary 18: Connectives, where and has a temporal function).

The information regarding connectives to be carried over to the Profile will therefore be the following:

Profile summary 18: Connectives

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	No noteworthy behaviour identified	No typical behaviour identified
Middle group (5-0 to 5-11)	Use of And Example (M12): Our was swinging on the swing and I fall down	No typical behaviour identified
Senior group (6-0 to 6-11)		Use of And Example (S25): He lie me at the bed and he check my stomach

8.5   Communicative functions

Since there is no data available on age-appropriate pragmatic functions for multilingual EAL pre-schoolers in South African inner-city regions, the typical communicative intents and conversational skills displayed by the pre-school participants were investigated. The protocol designed by Creaghead (1984) was implemented to obtain data, since it was considered unlikely that the picture description and personal narrative would provide opportunities for the participants to display a variety of pragmatic language behaviours.

The results are displayed in Tables 8.11 to 8.13 below.

Table 8.11.   Percentage participants producing communicative intents

Communicative intents	Junior group	Middle group	Senior group
Greeting	100	100	100
Request object	10	50	70
Request action	20	40	70
Request information	10	70	70
Comment on object	40	60	70
Comment on action	50	60	80
Describe event	40	30	100
Prediciting	40	80	100
Hypothesizing	40	30	70
Denial	20	30	20
Choosing	100	100	100
Giving reasons	10	30	100
Closing a conversation	80	90	100

Table 8.12.   Percentage participants producing conversational devices

Conversational devices	Junior group	Middle group	Senior group
Answering	70	100	100
Volunteering to communicate	20	50	80
Attending to speaker	90	100	100
Taking turns	20	70	90
Acknowledging speaker	40	60	90
Specifying a topic	10	30	80
Changing the topic	10	0	60
Maintaining the topic	40	80	90
Asking conversational questions	10	10	60
Giving expanded answers	0	20	90
Requesting clarification	10	60	90
Clarifying	10	20	90

Tables 8-11 and 8-12 provide a visual overview of the increasing use of both communicative intents and conversational devices with increase in age of the pre-school participants. The general increase in these two behaviours is illustrated more specifically in Table 8.13 and Figures 8.5 and 8.6.

Table 8.13.   Number   of   noteworthy   and   typical   pragmatic   behaviours demonstrated by pre-school participants

Groups	N intents typical	N intents noteworthy	Total
Junior	3	1	4
Middle	4	4	8
Senior	7	5	12
	N devices typical	N devices noteworthy	Total
Junior	1	1	2
Middle	3	4	7
Senior	10	2	12

The number of communicative intents and functions displayed by the three age groups (Table 8.13) are compared in Figure 8.5 and Figure 8.6. The communicative intents and devices are not specified in these figures because the objective is to demonstrate the increased use of communicative intents and devices in general with increasing age.
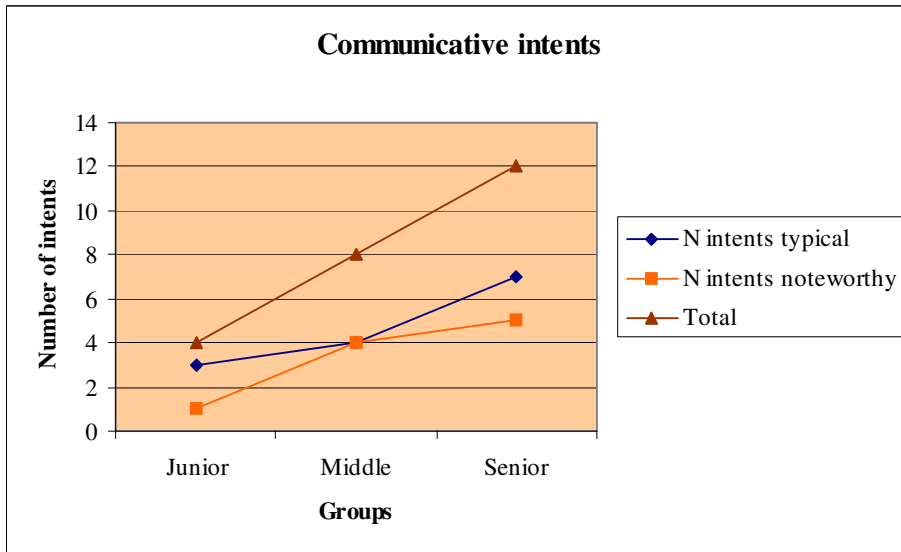
Figure 8.5.   **Comparison of three age groups regarding communicative intents**
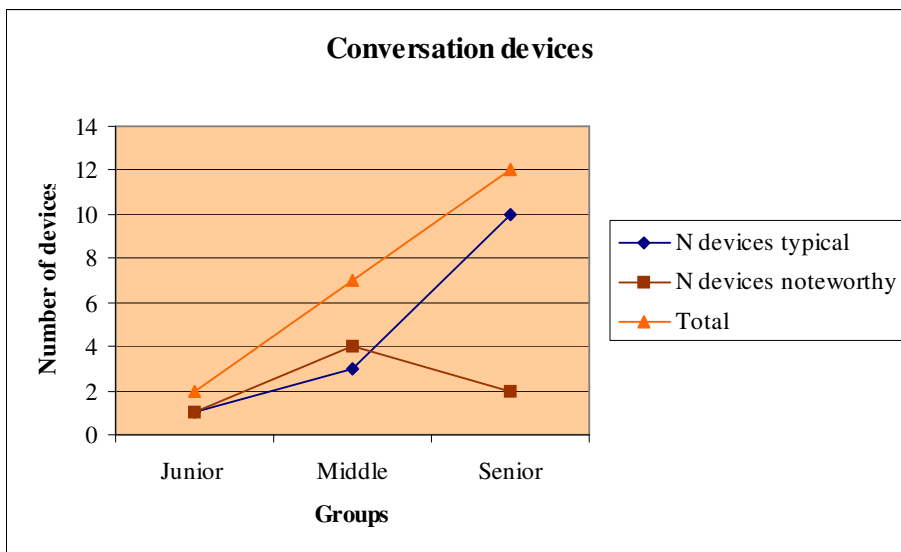
Figure 8.6.   **Comparison of three age groups regarding conversation devices**

Figures 8.5 and 8.6 demonstrate that the pre-school participants became more adept communicators with increase in age. The decrease in noteworthy behaviours is explained by the steep increase in typical behaviours. However, these results reflected

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only elicited behaviours and did not include communicative functions that occurred spontaneously during the conversation with the research fieldworker. Furthermore, although they were classified into communicative intents and conversational devices, it was considered that a more detailed classification might provide more comprehensive developmental information.

Keshavarz (2001:188), following Halliday, distinguishes seven categories of early developing communicative functions under two headings, namely interpersonal functions (instrumental, regulatory, interactional, and personal functions) and ideational functions (heuristic, imaginative, and informative functions).

When the data collected with Creaghead's (1984) protocol was superimposed on the categories proposed by Halliday (cf Keshavarz, 2001:188), and added to the communicative functions identified in the conversational language sample, a representation of the types of functions displayed by the pre-school participants was constructed (Table 8.14). In order to utilise the elicited behaviours, the functions represented in Creaghead's (1984) protocol were categorised as follows:

Categories proposed by Halliday (Keshavarz, 2001:188)	Functions listed by Creaghead (Creaghead, 1984)
Interpersonal functions:	
Instrumental functions:	requesting objects, requesting actions
Regulatory functions:	requesting/directing action
Interactional functions:	greeting, specifying a topic, closing a conversation, acknowledging, attending to speaker.
Personal functions:	making choices, expressing feelings, denial.
Ideational functions:	
Heuristic functions:	requesting information, requesting clarification
Imaginative functions:	hypothesizing, predicting
Informative functions:	providing information, commenting, describing an event, giving reasons, answering questions.

The results are displayed in Table 8.14.

Table 8.14. Categories of communicative functions displayed by pre-school participants

Groups	Interpersonal functions							
	INSTRUMENTAL		REGULATORY		INTERACTIONAL		PERSONAL	
	Sample	Creaghead	Sample	Creaghead	Sample	Creaghead	Sample	Creaghead
Junior		1			10	10	5	10
Middle		6			10	10	5	9
Senior		8			10	10	6	10
Groups	Ideational functions					
	HEURISTIC		IMAGINATIVE		INFORMATIVE	
	Sample	Creaghead	Sample	Creaghead	Sample	Creaghead
Junior	2	2	4	5	9	8
Middle		8	8	8	10	10
Senior	2	10	9	10	10	10

Key :-
Sample = data obtained from conversation sample
Creaghead = data obtained from using the activities suggested in Creaghead's (1984) protocol.

Examples of the types of communicative functions displayed by the pre-school participants are provided in Table 8.15.

Table 8.15. Examples of the types of communicative functions displayed by the pre-school participants

Participant number	Type	Example
J4 (Junior group)	Personal	That's a nice present there
J4 (Junior group)	Imaginative	Predicts: They's gone eat the cake
J5(Junior group)	Informative	This is the girl umbrella
M11 (Middle group)	Personal	Don't hit other children
S21 (Senior group)	Imaginative	Maybe it's a dog present
J6 (Junior group)	Interactional	Acknowledges statement with "yes"
J10 (Junior group)	Interactional	Introduces new topic: "If you come in the water you see a shark and a whale"

As surmised, the more detailed classification afforded insight into the specific types of functions displayed by the three age groups of participants (Table 8.14). Instrumental and heuristic functions were more readily observed in the elicited than in the spontaneous context, and both showed an increase in occurrence with increase in age of the participants. Both of these functions involve making requests from the conversational partner, and it is important to note that, although the EAL pre-school participants produced few or no requests in the conversation context, requests could be elicited by the use of Creaghead's (1984) protocol. Imaginative functions were evident in both contexts and also demonstrated a developmental tendency.

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Interactional functions (greeting, specifying a topic, closing a conversation) were typical behaviours in both spontaneous and elicited contexts for all three of the age groups of participants. A qualitative scrutiny of the category informative functions revealed that all participants answered questions. On the other hand, no participant demonstrated any regulatory functions.   The absence of regulatory language behaviours can be accounted for by the nature of the interaction context, namely interaction between a pre-schooler and an adult in a pre-school setting. For the rest of the data in Table 6.50 there is no clear indication that the pre-school participants found the ideational functions more difficult to use than the interpersonal functions as predicted by Keshavarz (2001:192).

The results depicted in Table 8.14 indicate that a more comprehensive assessment of communicative functions was possible when information from both the conversation and the elicited context was considered. When behaviour was elicited with the use of Creaghead's (1984) protocol, the pre-school participants demonstrated certain noteworthy and typical behaviours. Since therapists and teachers may be more familiar with the terminology employed by Creaghead (1984), the information will be carried over to the Profile as follows:

Profile summary 19: Communicative intents

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	Commenting on actions	Greeting Making choices Closing a conversation
Middle group (5-0 to 5-11)	Requesting an object Requesting information Commenting on an object Commenting on an action	Greeting Predicting Making choices Closing a conversation
Senior group (6-0 to 6-11)	Requesting an object Requesting an action Requesting information Commenting on an object Hypothesizing	Greeting Commenting on an action Describing an event Predicting Making choices Giving reasons Closing a conversation

Profile summary 20: Conversational devices

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	Answering	Attending to speaker
Middle group (5-0 to 5-11)	Volunteering to communicate Taking turns Acknowledging speaker Requesting clarification	Answering Attending to speaker Maintaining a topic
Senior group (6-0 to 6-11)	Changing a topic Asking conversational questions	Answering Volunteering to communicate Attending to speaker Taking turns Acknowledging speaker Specifying a topic Maintaining a topic Giving expanded answers Requesting clarification Clarifying

When the behaviours were grouped into the Hallidayan categories identified by Keshavarz (Keshavarz, 2001), there was also an increase in the number of functions demonstrated with increase in age. This information will also be carried over to the Profile as follows:

Profile summary 21: Communicative functions

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)
Junior group (4-0 to 4-11)	Imaginative functions	Interactional functions Personal functions Informative functions
Middle group (5-0 to 5-11)	Instrumental functions	Interactional functions Personal functions Informative functions Heuristic functions Imaginative functions
Senior group (6-0 to 6-11)		Instrumental functions Interactional functions Personal functions Informative functions Heuristic functions Imaginative functions

8.6   Conversational skills

This section describes various aspects of conversational skills, namely the ability of the pre-schoolers to repair breakdowns in conversation, the appropriateness of the pre-school participants' responses (Owens, 1999:156), the nature of their responses to questions (Pan, 1994:46), and their conversational turn-taking.

8.6.1. Repairing breakdowns

Both partners in a conversation may request repairs when conversation breakdown occurs, and it is equally important to take note of requests and of responses to these requests (Owens, 2001:365). For this reason, the conversations between the pre-school participants and the research fieldworker were analysed to identify all instances of repairs requested by both partners, and of the pre-school participants' responses to requests by the adult participant for conversation repairs. The results of the analysis are displayed in the tables and figures below.

Table 8.16. Conversation breakdown and repairs occurring in the conversation of EAL pre-schoolers

Type of behaviour observed	Group			Total for type of observation
	Junior	*Middle*	*Senior*	
t req	5	0	9	14
t resp	5	2	9	16
t nr	1	1	1	3
Total per group	11	3	19	
Number of participants	5	2	6	

Key: t req = total number of repairs requested by child
          t resp = total number of repairs requested by adult and supplied by child
          t nr = total number of repairs requested by adult but not supplied by child
          Total per group = total number of repair opportunities observed
          Number of participants = total number of participants per group participating in repair behaviour

Only one instance was observed for each age group where the adult requested some form of repair, but no repair was supplied by the child. The Middle group appeared to be generally less involved in repairing communication breakdowns than the other two groups. However, for both repairs requested and repairs supplied, there was an increase (Figure 8.7) from the Junior group (five instances observed in each case) to the Senior group (nine instances observed in each case). Although the data is relatively sparse, this indicates a developmental trend in repair behaviour.
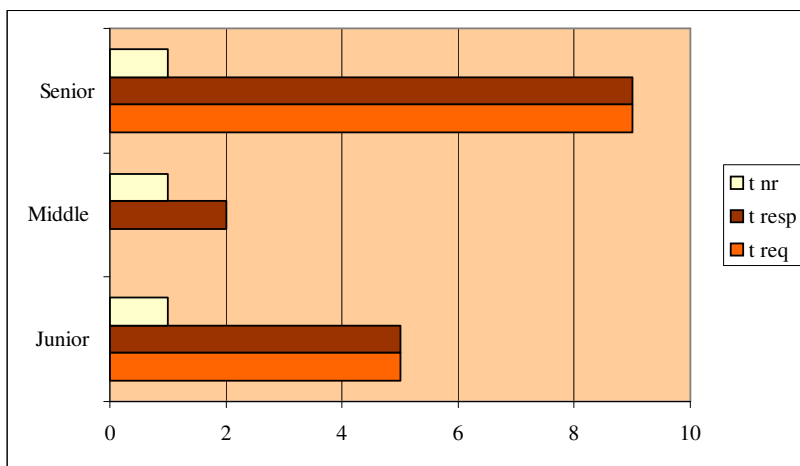
Figure 8.7. Conversational breakdown and repairs per group

Key: t req = total number of repairs requested by child
          t resp = total number of repairs requested by adult and supplied by child
          t nr = total number of repairs requested by adult but not supplied by child

Overall, more responses were observed than failures to respond, which is a positive indication that the pre-school participants were responsive to the needs of their communicative partner (Owens, 2001:365). In order to decide which kind of repair behaviour could be considered typical of each age group, the number of children demonstrating the various types of behaviour was examined (Table 8.17 and Figure 8.8).

Table 8.17.   Number of children demonstrating repair behaviours

Behaviour observed	Groups		
	Junior	*Middle*	*Senior*
N t req	4	0	3
N t resp	5	2	7
N t nr	1	1	1

Key: N t req = total number of children requesting repairs
        N t resp = total number of children supplying repairs requested by adult
        N t nr = total number of children not supplying repairs requested by adult
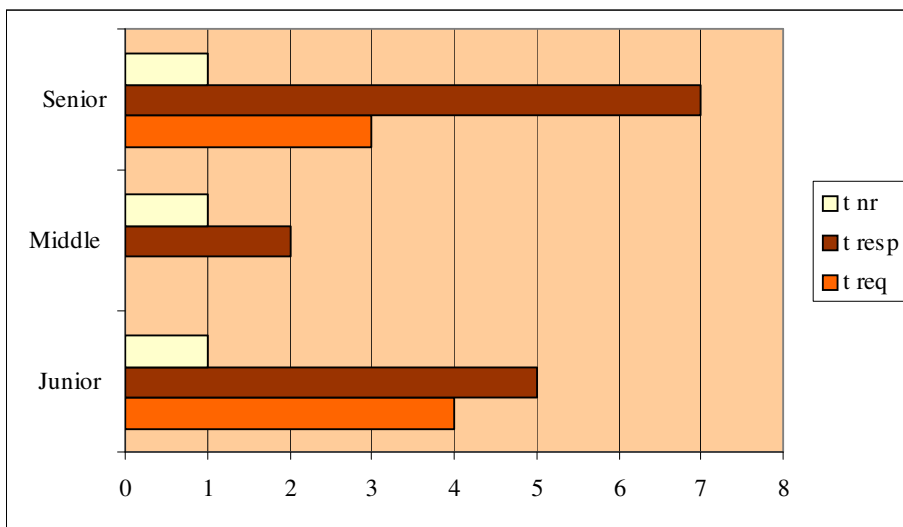
Figure 8.8.   Number of children demonstrating repair behaviours for three age groups

In the Junior group, only one type of behaviour was displayed to a noteworthy extent (by 50% of the participants), namely *supplying repairs requested by adult*. This behaviour was displayed by 70% of the Senior group. The details of the categories of repair observed for each group of participants appear in Table 8.18.

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Table 8.18.   Categories of repair observed per group (details)

	N per group	req rep	req conf	req spec	resp rep	resp conf	resp spec	Resp opp	nr rep
Total Junior group	5	1	3	1	2	0	3	6	1
Total Middle group	2	0	0	0	2	0	0	3	1
Total Senior group	6	0	9	0	4	4	1	10	1
Total observations		1	12	1	8	4	4	19	3

Key:

N per group = number of participants per group for whom any type of repair behaviour was observed.

Req rep = repetition requested by child for clarification (number of observations)

Req conf = confirmation requested by child (number of observations)

Req spec = specification requested by child (number of observations)

Resp rep = response to repetition requested by adult (number of observations)

Resp conf = response to confirmation requested by adult (number of observations)

Resp spec = response to specification requested by adult (number of observations)

Resp opp = total number of opportunities afforded to respond to requests for repair

Nr rep = no response when repetition requested by adult (number of observations)

In all, the mean number of opportunities afforded for children in the various groups to supply conversation repairs was 0.6 for the Junior group, 0.3 for the Middle group, and 1.0 for the Senior group (deduced from Table 8.18). This number seems so low that supply of repair behaviours is not considered a highly relevant category of behaviour to investigate for obtaining markers of typical conversational behaviour in young EAL children engaged in conversation with an adult. The implication is not that the pre-school participants were not able to produce this behaviour, but rather that repairs were not requested from them.

Table 8.19 provides an overview of the total number of participants displaying each type of repair behaviour.

Table 8.19.   Total number of children displaying each type of behaviour

	Req rep	Req conf	Req spec	Resp rep	Resp conf	Resp spec	Nr rep
Total junior group	1	2	1	2	0	3	1
Total middle group	0	0	0	2	0	0	1
Total senior group	0	3	0	3	3	1	1
Total all groups	1	5	1	7	3	4	3

Key:

Req rep = repetition requested by child for clarification (number of participants)

Req conf = confirmation requested by child (number of participants)

Req spec = specification requested by child (number of participants)

Resp rep = response to repetition requested by adult (number of participants)

Resp conf = response to confirmation requested by adult (number of participants)

Resp spec = response to specification requested by adult (number of participants)

Nr rep = no response when repetition requested by adult (number of participants)

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Although repair behaviours were noted in more than 50% of participants in both the Junior and Senior groups, no single type of behaviour was recorded for more than 50% of any specific group. Therefore, no information concerning repair behaviours will be carried over to the Profile.

8.6.2. Appropriateness of responses

Spontaneous utterances and follow-up utterances were excluded from this analysis, since they cannot be classified as responses in the sense required here. Only those utterances that were produced in response to a stimulus were included. "No response" is counted on the grounds that it can be regarded as a refusal or failure to respond. The results regarding the appropriateness of responses are displayed in Tables 8.20 to 8.22.

Table 8.20. Appropriateness of responses: Junior group

Participant	J1	J2	J3	J4	J5	J6	J7	J8	J9	J10	n	N producing more than once
Total responses	26	6	19	31	20	23	25	21	24	29	10	
Appropriate	21	0	5	24	13	21	19	10	19	25	9	9
Irrelevant/ inappropriate	2	0	1	2	0	0	1	0	2	2	6	4
Questionable	2	0	0	4	0	1	1	2	2	2	7	4
No response	1	6	13	1	7	1	4	9	1	0	9	5

Table 8.21. Appropriateness of responses: Middle group

Participant	M1	M2	M3	M4	M5	M6	M7	M8	M9	M10	n	N producing more than once
Total responses	21	29	32	14	53	28	32	24	26	15	10	
Appropriate	20	25	30	12	44	26	30	20	20	10	10	9
Irrelevant/ inappropriate	0	0	1	1	1	0	1	1	2	0	6	1
Questionable	1	1	1	1	4	0	0	0	0	0	5	1
No response	0	3	0	0	4	2	1	3	4	5	7	6

Table 8.22. Appropriateness of responses: Senior group

Participant	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	n	N producing more than once
Total responses	47	48	51	58	38	48	49	31	50	36	10	
Appropriate	45	20	49	55	32	46	45	19	46	35	10	10
Irrelevant/ inappropriate	1	15	1	1	2	1	0	1	1	0	8	2
Questionable	1	6	0	2	1	1	2	2	1	1	9	4
No response	0	7	1	0	2	0	2	9	2	0	6	5

While all of the categories of response were noted in more than 50% of participants in all three groups, production of more than two instances per participant in more than

50% of participants per group appeared only for the following categories for all three groups:

> Appropriate response
> No response

In the case of the Junior group, 50% of participants also provided more than two instances of questionable response, that is, it was debatable whether the response was appropriate or not. Overall, the young participants seemed typically to respond when they were sure of the response, and to refrain from responding in other cases.

Besides identifying the type of typical responses with regard to appropriateness, it was also necessary to determine the typical percentage of responses that would fall into each of these categories. The number of responses in each of these two categories (appropriate response and no response) were calculated as a percentage of the total number of responses for each participant. The means and standard deviations were then calculated. The resulting proposed normative ranges are presented in Table 8.23. The formula of two standard deviations above and below the mean could not be applied where the range of percentages obtained was too wide, with consequently a large standard deviation. In addition, the percentage of utterances falling within a category could not be more than 100%; consequently, the range included between the 10th and 90th percentiles (Steyn *et al.*, 1994:127) was used to describe the performance of 80% of the participants in each age group.

Table 8.23. **Proposed normative range for** *appropriate response* **and** *no response* **for three age groups of pre-school participants**

Group	Category	Mean	Range	SD	Norm (mean –2SD to mean +2SD	10th to 90th percentile.
Junior	Appropriate	70	59.9	20.8	28.4% – 100%	26.3% – 86.2%
	No response	19.8	68.4	23.8	Typical range could not be established	0% – 12.5%
Middle	Appropriate	85.8	28.5	9	67.8-100	76.9% – 93.8%
	No response	8.9	33.3	10.2	Typical range could not be established	0% – 12.5%
Senior	Appropriate	85.3	55.3	18.6	48.1 – 100	61.3% – 96%
	No response	5.9	29	9.3	Typical range could not be established	0% – 14.6%

The developmental tendency for these two categories is displayed in Figure 8.9.
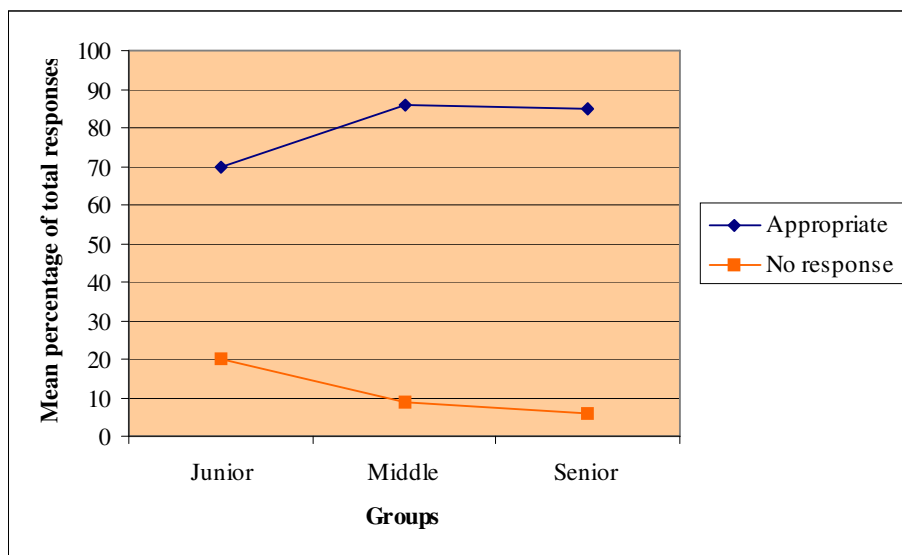
Figure 8.9. **Developmental tendency for appropriateness of response in three age groups**

The increase in appropriate responses from 4 to 6 years and the steady decrease in no response both point to an advance in appropriateness of responses with age, *if* no response *is regarded as inappropriate behaviour*. In summary, most of the responses elicited from the pre-school EAL participants were appropriate.

The information to be carried over to the Profile will be the following:

Profile summary 22: Appropriateness of responses

Group	Noteworthy behaviour (50-80% of group)	Typical behaviour (80%+of group)	Range of occurrence representative of group (10th – 90th percentile) and mean for group
Junior group (4-0 to 4-11)	No response	Appropriate response	Appropriate response 26.3% – 86.2% (mean: 70%) No response 0% - 12.5% (mean 19.8%)
Middle group (5-0 to 5-11)	No response	Appropriate response	Appropriate response 76.9% - 93.8% (mean 85.8%) No response 0% - 12.5% (mean 8.9%)
Senior group (6-0 to 6-11)	No response	Appropriate response	Appropriate response 61.3% - 96% (mean 85.3%) No response 0% - 14.6% (mean 5.9%)

8.6.3. Conversational turns taken

The mean percentage of conversational turns taken for each of the three groups of participants is displayed in Table 8.24. Participants in the Junior group on average took more than 80% of the conversational turns available to them, while participants in the Middle and Senior groups on average took more than 90% of the available turns. On the whole, therefore, the pre-school participants evidenced appropriate utilisation of the interactional framework of the conversation (Owens, 2001:163-165).

Table 8.24.   Percentage of conversational turns taken by pre-school participants

Group	Mean	Range	Standard deviation (SD)	10th %ile	90th %ile
Junior	82.78%	44 – 100%	21.18	57%	100%
Middle	93.46%	68.75 – 100%	9.57	89.66%	100%
Senior	93.94%	70.97 – 100%	9.21	85.71%	100%

The scatter of percentages for each group (Figures 8.10 to 8.12) reveals a single low score in each group, indicating that the typical range of behaviour would best be

determined by utilising the 10th and 90th percentile (Table 6.60) to find the range for 80% of each group (Steyn *et al.*, 1994:127). The upper limit for all three groups is 100%. The lower limit for the Junior group (57%), however, is considerably lower than that for the Middle and Senior groups (89.66% and 85.71% respectively). In the age range 4-0 to 4-11, therefore, EAL pre-schoolers in this context may be less inclined to utilise all available conversational turns and yet be demonstrating typical behaviour for their age group.
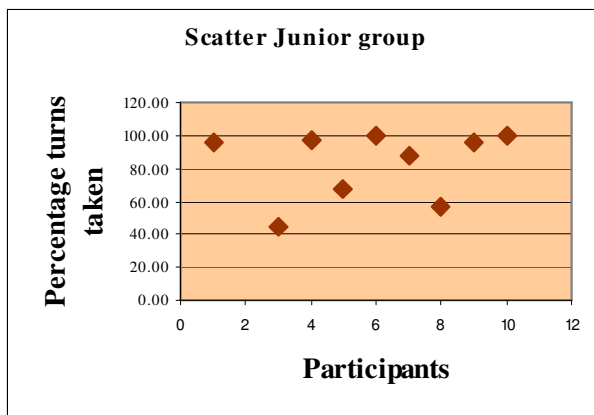
Figure 8.10. Scatter of percentages of conversational turns taken by Junior group
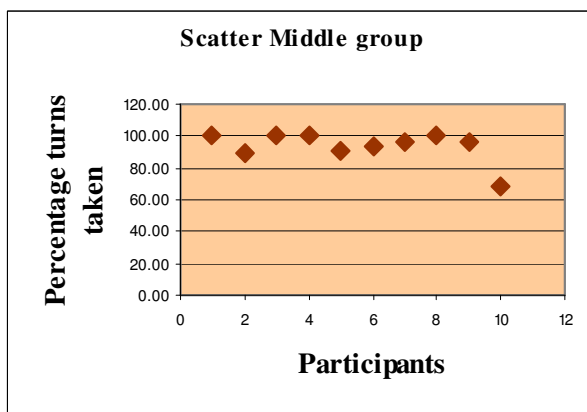
Figure 8.11. Scatter of percentages of conversational turns taken by Middle group

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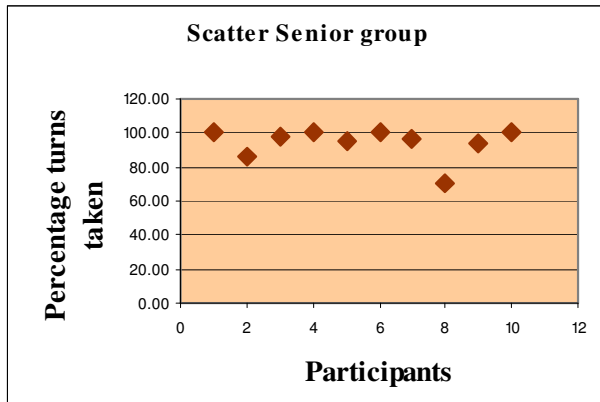
Figure 8.12. Scatter of percentages of conversational turns taken by Senior group

Although participants in all three age groups proved to be good conversationalists in terms of taking conversation turns, the youngest participants, as observed, were sometimes reluctant in this respect. Poor turn-taking is often encountered in young children with language disorders (Owens, 1999:295), but appropriate turn-taking is generally considered to be characteristic of the conversations of young children with normal language development (Owens, 1999: 164). Hoff (2005:266) remarks that children's ability to take turns may even outstrip their understanding of what is being said or asked. The information regarding turn-taking to be carried over to the Profile will be the following:

Profile summary 23: Conversational turns taken

Group	Range of occurrence representative of group (10th to 90th percentile)
Junior group (4-0 to 4-11)	57% – 100%
Middle group (5-0 to 5-11)	89.7% – 100%
Senior group (6-0 to 6-11)	85.7% – 100%

8.7   Narratives

The picture sequence sub-test from the Kindergarten Language Screening Test, Second Edition (KLST-2) (Gauthier & Madison, 1998) was intended to elicit connected discourse (Table 5.2, Chapter 5). In most cases, only picture description

was elicited in the form of naming the persons depicted, or labeling or briefly describing the action depicted. Some examples are provided below.

> Examples:
>
> Participant 9 (Junior group): "Eating and drinking juice. Drinking and eating. He's eating water."
>
> Participant 13 (Middle group): "A dog. They drink milk. The girl, he take off the milk. The girl. The doggie drink milk."

Occasionally a participant assigned intentions to a person or animal depicted on the picture cards.

> Example:
>
> Participant 21 (Senior group): "They was drinking the coke. And they was sitting and the dog … They are messed. And they are cleaned up. And the dog want to drink the coke."

With one exception (participant S28, Senior group), the pre-school participants produced narratives that could be classified as heaps or temporal chains without causality (Owens, 2001:354-355). The results relating to the picture story narratives were not considered further for inclusion in the Profile, but a note will be made that picture sequences may not be the ideal medium to elicit narratives from EAL pre-schoolers in this context. Gillis and De Houwer (1998:66) found that not all the four-year-old Dutch-speaking children they studied were able to tell a connected story based on a picture book. Some children tended to describe the separate pictures only, in much the same way as the EAL pre-school participants. The use of pictures may place cognitive demands that interfere with the children's ability to tell a story (Hoff, 2005:385; Müller, Munro & Code, 1981:65).

The components of a narrative were more clearly evidenced in the participants' productions of personal narratives as elicited by a story map (Tönsing, 1998:17). For each participant, the longest personal narrative produced was selected for analysis as suggested by Rollins, McCabe & Bliss (2000:227). The results of the analyses are

displayed in Tables 8.25 and 8.26. In this case, behaviours were not required to be produced more than once, since only one narrative was analysed for each participant.

Table 8.25. Narratives produced by the pre-school participants

Group	Narrative structure							
	none produced	*one-event*	*two-event*	*miscellaneous*	*leap-frog*	*chronological*	*end-at-high-point*	*classic*
Junior group	2	5	0	0	2	1	0	0
Middle group	0	1	2	5	0	2	0	0
Senior group	0	1	1	0	0	5	3	0

Table 8.26. Summary of narratives produced by each group of participants

Junior group	N	Middle group	N	Senior group	N
one-event	5	miscellaneous	5	chronological	5
leap-frog	2	two-event	2	end-at-high-point	3
None	2	chronological	2	one-event	1
chronological	1	one-event	1	two-event	1

Key: N = number of participants producing the specified narrative type

Although no typical narrative type (i.e. produced by 80% or more of a group of participants) was found for any age group, a developmental trend was observed in the narrative types produced by 50% of the participants in each age group. In addition, while two of the participants in the Junior group failed to produce a narrative, all of the participants in the Middle and Senior groups did produce narratives. The highest level of narrative produced (by three participants in the Senior group) was end-at-high-point narrative. No participant produced a classic narrative, the highest level reported in the literature for pre-schoolers (Rollins *et al.*, 2000).

In Table 8.27 the production of narratives by the pre-school participants is compared to the typical developmental sequence and age levels reported in the literature for European North American children (Rollins *et al.*, 2000:225). The developmental sequence appears to be similar for the two groups, but the pre-school participants appear to have attained the various levels at a later age than their North American counterparts.

Table 8.27. Comparison between development of high-point narrative structure in EAL pre-school participants and in European North American (NEA) children (data from Rollins *et al.*, 2000:225)

Developmental sequence	Typical age for NEA children	Age for EAL pre-schoolers (50% of participants in age group)
One-event narrative	Before 3 ½ years	4 years
Two-event narrative	3 ½ years	
Miscellaneous narrative		5 years
Leapfrog narrative	4 years	
Chronology	Present at all ages	6 years
End-at-high-point narrative	5 years	
Classic high-point narrative	6 years and older	

The frequency of occurrence of the various codes ascribed to the individual clauses contained in each participant's narrative, as well as the total number of codes assigned for each narrative, also yielded results indicating an overall developmental trend (Table 8.28). Increase in age coincided with an increase in the total number of codes assigned.

Table 8.28. Frequency of occurrence of each code for each group of participants

Group	Code					
	Orientation	*Action*	*Evaluation*	*Resolution*	*Coda*	*Total*
Junior	3	18	7	1	0	29
Middle	2	33	5	4	0	44
Senior	11	46	14	1	0	72
All	16	97	26	6	0	**145**

When the relative percentage of total codes assigned was computed for each type of code, the three age groups displayed the same pattern of distribution: the highest percentage of codes were in the action category, followed by evaluation and in the third place orientation. The only exception is the middle group where the resolution category carried a higher percentage than the orientation category (Table 8.29).

Table 8.29.   Percentage of occurrence of codes for each age group

Group	Code					
	Orientation	*Action*	*Evaluation*	*Resolution*	*Coda*	*Total*
Junior	10	62	24	4	0	100
Middle	5	75	11	9	0	100
Senior	15	64	20	1	0	100
All	11	67	18	4	0	100

The information regarding production of personal narratives to be carried over to the Profile will be the following:

Profile summary 24: Personal narratives

Group	*Noteworthy behaviour (50-80% of group)*	*Typical behaviour (80%+of group)*
Junior group (4-0 to 4-11)	**One-event narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category**	
Middle group (5-0 to 5-11)	**Miscellaneous narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category**	
Senior group (6-0 to 6-11)	**Chronological narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category**	

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8.8   Conclusion

The semi-structured conversation between the adult research fieldworker and the EAL pre-school participants, with the addition of communicative behaviours elicited with

the aid of Creaghead's (1984) protocol, yielded information that could be utilized in assessing the language use of the pre-school participants. It was possible to draw some conclusions regarding the use of language for various functions, adapting to and being responsive to the listener, and adhering to conversational and narrative conventions. It is likely that the results regarding language use will be useful in planning assessment of English language behaviours in EAL pre-schoolers aged 4-0 to 6-11, but especially in those pre-schoolers aged 6-0 to 6-11 where most data could be gathered.

However, the list of typical behaviours relating to language use will not inevitably be meaningful for clinical and educational practice. The ranges of behaviour indicated as "representative" are in many cases very broad and will need refinement. The main value of the results from this section lies in the general indication of the nature of language use typically found in EAL pre-schoolers.

8.9   Summary

The investigation of the divergent aspects of language *use* has yielded diverse results. In some cases there were clear indications of typical language behaviours and developmental trends. In other instances no typical language behaviours could be found. A summary of the results that showed typical language behaviours for any of the three groups of pre-school participants is provided in Table 8.30.

Table 8.30.   Typical language behaviours relating to *language use* identified in EAL pre-schoolers

Aspects		Typical behaviours identified		
		Junior group	*Middle group*	*Senior group*
Responses	Response to question	Percentage of total responses 31.6% – 80.8%	Percentage of total responses 68.4% – 90.6%	Percentage of total responses 52.7% – 78.6%
	Follow-up of own response	Percentage of total responses 0% - 20%	Percentage of total responses 0%- 13.5%	Percentage of total responses 3.8% – 36.3%
	Follow-up to adult's non-question response	Percentage of total responses 0% – 5.3%	Percentage of total responses 0	Percentage of total responses 2% – 6.5%
	No response	Percentage of total responses 3.8% – 68.4%	Percentage of total responses 0% – 14.8%	Percentage of total responses 0% – 5.8%

Mazes			Repetitions (occurring on average in 12% of utterances)
Connectives			Use of *And*
Communicative intents	- Greeting - Making choices - Closing a conversation	- Greeting - Predicting - Making choices - Closing a conversation	- Greeting - Commenting on an action - Describing an event - Predicting - Making choices - Giving reasons - Closing a conversation
Conversational devices	Attending to speaker	- Answering - Attending to speaker - Maintaining a topic	- Answering - Volunteering to communicate - Attending to speaker - Taking turns - Acknowledging speaker
Communicative functions	- Interactional - Personal - Informative	- Interactional - Personal - Informative - Heuristic - Imaginative	- Instrumental - Interactional - Personal - Informative - Heuristic - Imaginative
Appropriate responses	Percentage of total responses 26.3% – 86.2% (mean: 70%)	Percentage of total responses 76.9% - 93.8% (mean 85.8%)	Percentage of total responses 61.3% - 96% (mean 85.3%)
Conversational turns taken: **Percentage of turns taken**	57% – 100%	89.7% – 100%	85.7% – 100%
Personal narratives			

It is immediately apparent from Table 8.30 that a number of *typical language behaviours* appeared in the Senior group of pre-school participants, somewhat fewer in the Middle group, and fewer still forms of typical behaviour occurred in the Junior group.   This pattern of results implies that the pre-schoolers acquired additional pragmatic behaviours as they grew older.

CHAPTER 9

TWO VERSIONS OF A LANGUAGE PROFILE FOR EAL PRE-SCHOOL LEARNERS

AIM:
To demonstrate the feasibility of constructing a profile of typical language behaviours in a group of EAL pre-schoolers by presenting the outcome of the analyses of language form, language content and language use elicited and observed in the interaction between the research fieldworker and the pre-school participants in the form of two products: a comprehensive language profile for the circumscribed group of EAL pre-schoolers, and a compact version of the language profile containing the most relevant information concerning typical language behaviours demonstrated by the EAL pre-schoolers.

9.1.   Introduction

Early identification of language impairment in young children is of the essence in a world where communication ability determines a person's capacity to utilise the various forms of information technology, whether high technology or low technology, that dictate and regulate the lives of individuals and communities. The value attached to language and communication behaviour as the only developmental domain relating directly to future academic success (Capute, Palmer & Shapiro, 1987:60; Wentzel, 1991; Catts, 1993; Lockwood, 1994; Nelson, 1998; Catts, Fey, Zhang & Tomblin, 2001; Rossetti, 2001) is testimony to the priority accorded to this developmental area by researchers and practitioners in the field of early intervention and early childhood development in general. The South African Revised National Curriculum Statement also acknowledges the importance of language: "Language is central to our lives. We communicate and understand our world through language. Language thus shapes our identity and knowledge" (Department of Education, 2002b:5).

It is essential, therefore, that speech-language therapists ensure that they have appropriate and justifiable means to determine whether a pre-schooler's communication skills are in accordance with those of his peers, or differ in such a manner as to indicate a risk for future academic difficulties. The "deficit vs. disorder" debate started more than a decade ago in the United States (Taylor, 1986), and it is now generally accepted that the *typical* language behaviours of any group does not constitute a disorder or impairment (Owens, 2001:417). In South Africa the discussion

has followed much the same course (Smit & Wissing, 2000) but the dialogue and the research has yielded little information about typical language behaviours of EAL pre-schoolers. In order to draw legitimate conclusions relating to language ability or impairment, speech-language therapists and teachers working in collaboration in pre-school settings require a profile of typical language behaviours for the learners in their particular setting.

The research question posed for the current study was: *can a typical language profile be identified for a small group of EAL pre-school learners in a circumscribed urban area, from which a set of boundaries may be construed for the profile of EAL pre-school learners with potential language learning disorders?* It was stated at the outset that the intention was not to collect the most comprehensive language sample that could possibly be obtained in order to construct these profiles. The purpose was to base the profile on language and communication information resembling the data predictably obtainable during a conversation between an adult and a pre-schooler in the specified setting. The research results described in Chapters 6, 7 and 8 were processed to provide an answer to this question.

9.1.1. *The feasibility of constructing a language profile for pre-school EAL learners in a circumscribed urban area*

The language sample obtained from a semi-structured conversation using picture description (Minskoff, Wiseman & Minskoff, 1972; Gauthier & Madison, 1998) and a story map for personal narrative (Rollins, McCabe & Bliss, 2000), together with pragmatic behaviours elicited by means of a specific protocol (Creaghead, 1984) and additional data on morphology collected with the aid of selected pictures accompanied by sentence completion (such as proposed for Subtest 9 of the ITPA, Kirk, McCarthy & Kirk, 1968), yielded the following results:

1. *Typical behaviours* were identified for nine aspects of language form, one aspect of language content, and six aspects of language use.
2. *Noteworthy behaviours* were identified for nine aspects of language form, and seven aspects of language use.

3. *Representative range* of behaviour was identified for one aspect of language content. For six aspects of language content and one aspect of language use, a true representative range (-2SD to +2SD) could not be determined as the scores were too widely scattered. The range of *10th to 90th percentile* was determined for these aspects, but these ranges are very wide and must be interpreted with caution.   It is possible that the aspects concerned are representative of behaviours that do not demonstrate a typical configuration.

These results can be regarded as sufficient indication of the feasibility of constructing a rudimentary language profile for a small group of EAL pre-school learners in a circumscribed urban area, based on the data predictably obtainable during a conversation between an adult and a pre-schooler in the specified setting.

The present chapter proposes such a language profile containing aspects of language form, content and use found during the analysis of the data to be relevant and distinguishing characteristics of three age groups of EAL pre-schoolers from a specified setting. The specific indicators for learners at risk for language learning disabilities were placed on a separate *risk profile* to be presented in the following chapter.

9.1.2. *The presentation of the language profile for pre-school EAL learners in a circumscribed urban area*

The following two versions of the *typical language profile for pre-school EAL learners in a circumscribed urban area (*"the *Profile"* in previous chapters) will be presented in this chapter:

1. *The comprehensive pre-school profile (CPP)* listing all the typical and noteworthy behaviours that were identified, and also additional notes on aspects that are relevant for speech-language therapists. The CPP is intended as an illustration of a profile that can be used in collaboration with teachers. Such a profile can be utilised to plan an effective and appropriate language enrichment programme that will provide activities within areas of strength to develop self-confidence and allow learners to enjoy activities in which they experience

success. It will also specify areas where activities to encourage and facilitate the acquisition of additional language abilities are indicated.

2. *The essential classroom profile (ECP)* listing the typical behaviours that are likely to be most relevant for teachers in the designated multilingual pre-school setting. The ECP is intended as an illustration of the type of profile that teachers will be able to use as a daily reminder of language areas to be exploited and areas to be developed in class activities with EAL pre-schoolers.

The CPP and the ECP are augmented by the *Profile of risk indicators (PRI)* (Chapter 10). The PRI is proposed as a prototype of an instrument which will assist therapists and teachers in identifying those learners who are at risk for SLI. The three profiles (CPP, ECP and PRI) are intended to represent one combined construct and have been designed with collaborative practice between speech-language therapists and pre-school teachers in mind. The intention is to provide speech-language therapists with resource and support material for their task as consultants to teachers (Chapter 3).

Although the document *Norms and standards for teacher education in South Africa* (Committee on Teacher Education Policy [COTEP], 1995) stresses competence based teacher training and declares that the competence with which a teacher can execute a task is more important than knowledge about a certain subject (COTEP, 1995:1), this does not mean that knowledge has become unimportant: The categories of knowledge, skills and values are not mutually exclusive, they are interactive (Nieman, 1997:98). One must know something before one can do something with understanding. When speech-language therapists engage in collaborative practice with pre-school teachers, they need to provide the teachers with both knowledge and skills in order to facilitate the development of communicative competence in EAL pre-schoolers. Where the combined CPP, ECP and PRI are implemented, it will be incumbent upon the speech-language therapist to provide sufficient information to the teacher regarding the structure of the profiles and the background information on eliciting language behaviour from pre-schoolers to allow them to interpret and utilise the profiles to the benefit of their learners.

It may therefore be necessary for speech-language therapists to study material such as that included in Tables 5.5a to 5.5c (Chapter 5) and to take full cognisance of the methods and procedures described for the currently proposed profiles, or for any other resource they wish to utilise for the early identification of EAL pre-schoolers at risk for language impairment and potential language-learning disorder. The information collected in this process will be relevant for the teacher/s in the collaborative team.

9.2. **The comprehensive profile (CPP) and the essential profile (ECP)**

A *language profile for* multilingual EAL pre-schoolers was defined in Chapter 4 as *a characterisation of expressive language behaviour (in terms of form, content and use) of multilingual EAL pre-schoolers within a specific time frame (between the ages of four and seven years) and circumstances (therapist-child conversational dyad in the pre-school setting).* It was further pointed out that *the absence as well as the presence of items on a specific child's profile may be significant*. The intention was also stated that the profile should be *a descriptive tool relating level of achievement to structures that could be taught/elicited/facilitated next.*

On the whole, the CPP and the ECP answer this description. The dimensions of form, content and use are described in both profiles, although these three dimensions are not equally represented in terms of the number of items included. The language behaviours presented in the profiles are to be considered representative of those typically demonstrated in the context of a conversation between a therapist and a child in the pre-school setting. Certain behaviours are noted in terms of their absence rather than their presence in the typical spectrum, proof that the nature of the findings was carefully considered.

Data for the three age groups regularly showed a developmental progress, so that in many cases it is possible to relate level of achievement to structures that could be presented next in classroom activities. For the youngest age group of participants (4 to 4-11), however, fewer typical behaviours were identified than for the other two groups. In some cases the younger participants also presented with no noteworthy behaviours (i.e. occurring in 50-70% of the group).

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Following an asset-based approach and targeting the strengths available in the language behaviour of these EAL learners (Müller, Munro & Code, 1981), the profiles do not focus on "errors" typically made, but on the general language behaviours typically exhibited. However, where relevant, idiosyncratic characteristics (i.e. not shared by children developing English as first language) are indicated on the *Profile* with an asterisk (*) or red lettering. Various other unconventional language structures did occur in the language samples of the EAL participants, particularly in the morphology of verbs and pronouns (Chapter 6 – Results and discussion: language form), but these structures were not produced by a sufficient number of participants to be described as "typical" or "noteworthy" of any particular age group.

Occasionally grammatically acceptable and unacceptable forms of a language structure occurred in the same age group. Although this is reminiscent of the co-occurrence of less mature and more mature syntax considered to be typical of children with SLI (Leonard, Miller & Gerber, 1999; Owens, 1999:37), which was also demonstrated by the EAL pre-school participants in two cases, there are no grounds for any other interpretation than that *these particular EAL pre-schoolers are sometimes inconsistent in their language behaviour.* The *Profile* serves to highlight this inconsistency where it is relevant.

Both profiles contain examples of utterances that were taken from language samples of participants in the relevant age groups. In the CPP, which is intended for use by speech-language therapists, these examples often include idiosyncratic (unconventional) aspects not targeted for the specific language behaviour being described. In the ECP intended for use by teachers, such examples were not included, in order to avoid confusion.

Although both the CPP and the ECP represent the context of a conversation between a therapist and a child in the pre-school setting, certain specific conditions apply in the case of each aspect of language behaviour. The behaviours described on the two profiles were elicited during various activities in the interaction, and the relevant activities will need to be duplicated when obtaining information on the language behaviour of a particular pre-schooler or group of pre-schoolers if the CPP or ECP is

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to be used as frame of reference for the assessment of language behaviour. The activities are listed below, together with an indication of the aspects of language behaviour for which they provided the data.

Table 9.1. Language aspects elicited by each elicitation activity

Language elicitation activities/material	Language aspects elicited		
	Language form	*Language content*	*Language use*
Conversation: Discussing a picture of a birthday party (Minskoff *et al.* f, 1972)	Syntactic complexity Syntactic structures Morphology MLU (Mean length of utterance)	Word counts: TNW (Total number of words) TDW (Total number of different words) TTR (Type-token ratio) TNV (Total number of verbs) TDV (Total number of different verbs) TNN (Total number of nouns)	Variety of utterances produced Mazes Discourse devices (connectives) Communicative functions, intents and devices Appropriateness of Responses Turns taken
Conversation: story map for personal narrative about *Going to the doctor* (Rollins *et al.*, 2000)	Syntactic complexity Syntactic structures Morphology MLU	TNW TDW TTR TNV TDV TNN	Variety of utterances produced Mazes Discourse devices (connectives) Communicative functions, intents and devices Appropriateness of responses Turns taken Narratives
Activities suggested for eliciting pragmatic behaviours (Creaghead, 1984)			Communicative functions, intents and devices
Pictures and sentence completion (Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities [ITPA] [revised edition.] – Kirk, McCarthy and Kirk, 1968).)	Morphology		
Story based on picture cards, as well as additional response utterances to Items 11-14, from the KLST-2 (Gauthier & Madison, 1998).	Syntactic complexity MLU		

The CPP is presented in section 9.2.1 and the ECP in section 9.2.2. In the CPP (9.2.1), the abbreviations used are those also used in the text of Chapters 6, 7 and 8. A list of these abbreviations is provided at the end of the profile. Abbreviations were not used for the ECP (9.2.2).

**9.2.1	Profile for use by Speech-language therapists: the comprehensive pre-school profile (CPP)**

**Table 9.2.	Profile for use by Speech-language therapists: the comprehensive pre-school profile (CPP**

Note: Red asterisk (*) indicates language behaviours not typically found in children developing English as first language

		Language form									
Groups		**Clause level**		**Phrase level**			**Word level**				**Subject-verb agreement**
		Syntactic complexity	Clause structures	Noun phrase	Pronoun phrase	Verb phrase	**Verb morphology**			Noun morphology	
							Main verb	*Copula and auxiliary "be"*	*Other auxiliary verbs*		
4 – 4-11	Typical (80 – 100%)	Simple sentences *The cat is on the chair*	*No typical behaviour could be identified*	*No typical behaviour could be identified*	*No typical behaviour could be identified*	Is/was/am + verb + -ing *The sister is washing*	*No typical behaviour could be identified*	*No typical behaviour could be identified*	*No typical behaviour could be identified*	Plural marking omitted in elicited context Note: non-marking of possessives may also be found to be typical if sufficient examples are elicited.	*No typical behaviour could be identified*
	Noteworthy (50 – 70%)		SV *We playing* SVO *The man is take this*	DN *the cake* *N only, D omitted in obligatory context *is umbrella*	"I" as subject *I don't know*	Copula *is, are, am* *That's a nice present*	Progressive aspect (Grammatically acceptable) *That one is sitting in the chairs* Progressive aspect extended *Must lying down*	Copula *be* used appropriately *Is this one's birthday* Auxiliary *be* used appropriately *It's raining*			Subject-verb agreement for: 1st person singular *I'm falling down* 3rd person singular *Mommy is taking a cake*

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5 – 5-11	**Typical (80 – 100 %)**	Simple sentences *He's blowing a candles*	SVO *I eat sweeties and chips and Simbas*	DN *a car* PrepDN *in the shop*	"I" as subject *I got a car*	*No typical behaviours could be identified*	Verb stem (grammatically acceptable) *When I go like this, it's sore* *Verb stem (grammatically unacceptable) He give me a medicine*	Auxiliary *be* used appropriately *They are playing* *I'm going home.*	*No typical behaviour could be identified*	Plural omitted in elicited context Note: non-marking of possessives may also be found to be typical if sufficient examples are elicited.	Subject-verb agreement for 1st person singular *I'm going home*
	Noteworthy (50 – 70%)		SV *I was crying*		Me" as object *My father take me to the doctor* "My" (possessive) *My father take me to the doctor* "They" as subject *They give me medicine*	*Verb stem alone (grammatically unacceptable) My mother say I don't play ball*	Irregular past (grammatically acceptable) *I got a car* Progressive aspect (grammatically acceptable) *They are playing* Infinitive *They are going to dance*			Regular plural used appropriately *Two cakes*	Subject-verb agreement for 3rd person singular *Other one takes the Simbas*

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| 6 – 6-11 | Typical (80 – 100%) | Simple sentences *They can wash the dishes* | "Yes"

 SV *I'm playing*

 SVA *The cat he sit in this girl his chair*

 SVO *This one he want the cake* | DN *This picture*

 PrepDN *In that thing* | "I" as subject *I was sick*

 "Me" as object *The stove blood <u>me</u> here*

 "My" (possessive) *I did give children <u>my</u> cake*

 "They" as subject *<u>They</u> go away* | Is/am/are/was + verb + -ing *They <u>are praying</u>* | Verb stem (grammatically acceptable) *We <u>play</u> school*

 *Verb stem (grammatically unacceptable) *And then he <u>check</u> my ears*

 Progressive aspect (grammatically acceptable) *They <u>are praying</u>* | Copula *be* used appropriately *There <u>is</u> a party* *It <u>was</u> a nice birthday* *I'<u>m</u> Superman*

 Auxiliary *be* used appropriately *One'<u>s</u> sitting, one's playing and the other one <u>is</u> also playing* | *No typical behaviour could be identified* | Regular plural used appropriately *I opened my <u>presents</u>*

 Note: non-marking of possessives may also be found to be typical if sufficient examples are elicited. | <u>Subject-verb agreement</u> for: 1st person singular *I have 'flu*

 3rd person singular *That was a cruel dog*

 3rd person plural *They're having a birthday*

 *<u>Subject-verb non-agreement</u> for: 3rd person singular *His head go up and down* |

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	Noteworthy (50 – 70%)										
		Compound sentences joined by "and" *They can open the presents and they can play.* Complex sentences with an embedded object clause *I don't know what they are doing here*	"No" SVC *It's sore* SVOA *You put it at the back of the people*	PrepN *at school*	"He", "she", "it" as subject *She invited them* "We" as subject *We just keep the cat in the house*	Copula *is, are, am, was* *Maybe it's a dog present* Verb + particle *They pick me up*	Irregular past (grammatically acceptable) *They gave me medicine* *Extended use of progressive aspect *Nomsa is hitting us* Infinitive *The dog want to open the present*		Use of auxiliary *do* in negative form (*don't, didn't*) *I don't cut my cat's nails.* *I didn't see it, and she blood me.*	Irregular plural used appropriately *Brush their teeth*	Subject-verb agreement for 1st person plural *When we watch TV…*

Mean Length of Utterance (10th to 90th percentile)

Age group 4 – 4-11	Age group 5 – 5-11	Age group 6 – 6-11
Calculated in morphemes Conversation 1.9 – 4.4 Test 2-6.8 **Calculated in words** Conversation 1.6 – 4.2 Test 1.2-6.3	**Calculated in morphemes** Conversation 2.5 – 4.5 Test 2.8-6.9 **Calculated in words** Conversation 2.1 – 4.1 Test 2.2-6.1	**Calculated in morphemes** Conversation 3.1 – 5.8 Test 5.3-8.6 **Calculated in words** Conversation 2.9 – 5.4 Test 4.8 - 7.8

Note on MLU:

For the conversation sample, the MLU for morphemes and for words in each of the three groups of participants was similar. Teachers may use MLU calculated in words for the conversation sample

as a measure of language development, especially for the age groups 4-0 to 4-11 (Junior group) and 5-0 to 5-11 years (Middle group).

There was more morphological complexity in the test sample than in the conversation sample, as the MLU calculated in *morphemes* is longer than the MLU calculated in *words*.

In the profile for teachers, only MLU in words is provided.

	Language content								
	Note: Ranges indicated for word counts are very wide and should be interpreted with caution								
Age Groups	Total word counts			Verbs			Nouns		Cognitive state verbs
	TNW	TDW	TTR	TNV	TDV	V % TNW	TNN	N % TNW	
4 – 4-11	10th – 90th percentile 9 - 154 Mean 70.5	10th – 90th percentile 7 - 49 Mean 33.0	10th – 90th percentile .30 - .78 Mean 0.47	10th – 90th percentile 3- 21	10th – 90th percentile 2 – 13	Mean TNV as percentage of mean TNW 15.9%	10th – 90th percentile 1 – 20	Mean TNN as percentage of mean TNW 16.5%	80%+ of the participants in this age group did not use cognitive state verbs
5 – 5-11	10th – 90th percentile 51 - 142 Mean 96.3	10th – 90th percentile 33 – 63 Mean 49.4	10th – 90th percentile .45 - .65 Mean 0.51	10th – 90th percentile 11 – 21	10th – 90th percentile 8 – 13	Mean TNV as percentage of mean TNW 18.5%	10th – 90th percentile 11 – 25	Mean TNN as percentage of mean TNW 17.3%	80%+ of the participants in this age group did not use cognitive state verbs
6 – 6-11	10th – 90th percentile 166 - 439 Mean 278.5	10th – 90th percentile 53 - 99 Mean 72.7	10th – 90th percentile .21 - .34 Mean 0.26	10th – 90th percentile 27 - 61	10th – 90th percentile 9 - 38	Mean TNV as percentage of mean TNW 18%	10th – 90th percentile 27 - 65	Mean TNN as percentage of mean TNW 18%	80%+ of the participants in this age group did not use cognitive state verbs

Language use

Age groups		Mazes:	Personal narratives (see note below)	Communicative intents/functions			Conversation skills			
				Intents	Functions	Conversational devices	Appropriateness of responses	Connectives (as discourse devices)	Responses/ spontaneous utterances	Turns taken
4 – 4-11	Typical (80-100 %)	*No typical behaviour identified*	*No typical behaviour identified*	Greeting Making choices Closing a conversation	Interactional functions Personal functions Informative functions	Attending to speaker	Appropriate response 26.3% – 86.2% (mean: 70%)	*No typical behaviour identified*	***Representative range of occurrence (mean/median +/-2SD)*** **– Percentage of utterances consisting of:** **Response to question** 31.6% – 80.8% **Spontaneous utterance** 0% - 20% **Response to comment** 0% – 5.3% **No response** 3.8% – 68.4%	**Percentage of available turns taken by 80% of participants** (*10th to 90th percentile*) 57% – 100%
	Noteworthy (50-70 %)	Repetitions (occurring on average in 5.7% of utterances)	One-event narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category	Commenting on actions	Imaginative functions	Answering	Questionable response No response 0% - 12.5% (mean 19.8%)			

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		No typical behaviour identified	*No typical behaviour identified*	Greeting Predicting Making choices Closing a conversation	Interactional functions Personal functions Informative functions Heuristic functions Imaginative functions	Answering Attending to speaker Maintaining a topic	Appropriate response 76.9% - 93.8% (mean 85.8%)	*No typical behaviour identified*	***Representative range of occurrence (mean/median +/-2SD) - percentage of utterances consisting of* Response to question** 68.4% – 90.6% **Spontaneous utterance** 0%- 13.5%	**Percentage of available turns taken** *10th to 90th percentile* 89.7% – 100%
5 – 5-11			Miscellaneous narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category	Requesting an object Requesting information Commenting on an object Commenting on an action	Instrumental functions	Volunteering to communicate Taking turns Acknowledging speaker Requesting clarification	No response 0% - 12.5% (mean 8.9%)	**Use of *And*** *Our was swinging on the swing and I fall down*	**Response to comment** 0 **No response** 0% – 14.8%	
6 - 6-11		Repetitions (occurring on average in 12% of utterances)	*No typical behaviour noted*	Greeting Commenting on an action Describing an event Predicting Making choices Giving reasons Closing a conversation	Instrumental functions Interactional functions Personal functions Informative functions Heuristic functions Imaginative functions	Answering Volunteering to communicate Attending to speaker Taking turns Acknowledging speaker Specifying a topic Maintaining a topic Giving expanded answers Requesting clarification Clarifying	Appropriate response 61.3% - 96% (mean 85.3%)	**Use of *And*** *He lie me at the bed and he check my stomach*	***Representative range of occurrence (mean/median +/-2SD) - percentage of utterances consisting of* Response to question** 52.7% – 78.6% **Spontaneous utterance** 3.8% – 36.3% **Response to comment** 2% – 6.5% **No response** 0% – 5.8%	**Percentage of available turns taken** *10th to 90th percentile* 85.7% – 100%

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	False starts (occurring on average in 4.2% of utterances) Filled pauses (occurring on average in 3.7% of utterances)	Chronological narrative produced by 50% of participants. Additional note: More than 60% of any personal narrative falls in the *action* category	Requesting an object Requesting an action Requesting information Commenting on an object	Changing a topic Asking conversational questions		No response 0% - 14.6% (mean 5.9%)	

Note on narratives:

Picture sequences may not be the ideal medium to elicit narratives from EAL pre-schoolers, as only picture description was elicited in the form of naming the persons depicted, or labelling or briefly describing the action depicted The components of a narrative were more clearly evidenced in the participants' productions of personal narratives as elicited by a story map.

Abbreviations:

General	Clause structure	Phrase structures	Word counts
4 – 4-11 4 years to 4 years 11 months	S subject	D/det determiner	*TNW Total number of words*
5 – 5-11 5 years to 5 years 11 months	V verb	Prep preposition	TDW Total number of different words
6 – 6-11 6 years to 6 years 11 months	O object	N noun	TTR Type-token ratio
	Od direct object	V verb	TNV Total number of verbs
SD Standard deviation	Oi indirect object	V part. Verb particle	TDV Total number of different verbs
+/-2SD From two standard deviations above mean to two standard deviations below mean	C complement	Aux auxiliary verb	V % TNW Percentage of total number of words consisting of verbs
	A adverbial	Cop copula	TNN Total number of nouns
	c connective	Adj adjective	N % TNW Percentage of total number of words consisting of nouns
	Q question/question word	Pron pronoun	
	Comm command	Neg negative	

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9.2.2   Profile for teachers: the essential classroom profile (ECP)

Table 9.3.   Profile for teachers: the essential classroom profile (ECP

Note: Red lettering indicates language behaviours not typically found in children developing English as first language

Age groups		Language form (sentences and words)								
		Clause level		Phrase level			Word level			
							Verb morphology		Noun morphology (plurals, possessives)	Subject-verb agreement
		Syntactic complexity (simple, compound and complex sentences)	Clause structures (sentences consist of subject, verb, object, adverbial etc.)	Noun phrase (words used together with nouns)	Pronoun phrase (forms of pronouns used)	Verb Phrase (words used together with verbs)	Main verb (verb tenses)	"Is" (all forms) as main verb and auxiliary verb		
4 – 4-11	Typical	Simple sentences containing one verb: *She gave me injection*	*No typical sentence structure identified*	*No typical noun phrases identified*	*No typical pronoun use identified*	Verb consists of: is/was/am + verb + -ing: *The sister is washing*	*No typical verb tenses identified*	*No typical use of "is" identified*	*No typical use of plurals/possessives identified during conversation* *Plural marking is omitted in elicited context:* *Here is a dress, here are two (dress)*	*No typical subject-verb agreement identified*
5 – 5-11	Typical	Simple sentences containing one verb: *I gave the babies food*	Sentence consists of Subject + Verb + Object: *I eat sweeties and chips and Simbas*	Noun may be preceded by a/the *a car* Noun may be preceded by preposition + a/the	Pronoun "I" used as subject *I got a car*	*No typical verb phrases identified*	Verb without inflection (grammatically acceptable) *When I go like this, it's sore* Verb without inflection (grammatically unacceptable) He give me a	Auxiliary *be (is, are, am, was, were)* + verb used appropriately *They are playing* *I'm going home.*	*No typical use of plurals/possessives identified during conversation* Plural marking is omitted in elicited context: *Here is a dress, here are two … (dress)*	Subject-verb agreement for 1st person singular *I'm going home*

				in the shop			medicine			
6 – 6-11	**Typical**	Simple sentences containing one verb: *He broke my finger*	Sentence consists of *One word:* "Yes" Subject + Verb *I'm playing* Subject + Verb + Adverbial *I went to the doctor* **Subject + Verb Object** *We make a cake*	Noun may be preceded by a/the *This picture* Noun may be preceded by preposition + a/the *In that thing*	Pronoun "I" used as subject *I was sick* Pronoun "Me" used as object *The dog bit me* Use of "My" (possessive) *I did give children my cake* Pronoun "They" used as subject *They go away*	Verb consists of: is/was/am + verb + -ing: *They are praying*	Verb without inflection (grammatically acceptable) *We play school* Verb without inflection (grammatically unacceptable) *And then he check my ears* Grammatically acceptable use of is/are –ing: *They are praying*	*Is/are/am/was/were* used appropriately as main verb *There is a party It was a nice birthday I'm Superman* Auxiliary *be (is, are, am, was, were)* + verb used appropriately *One's sitting, one's playing and the other one is also playing*	Regular plural used appropriately *I opened my presents* Plural marking is omitted in elicited context: *Here is a dress, here are two … (dress).*	Subject-verb agreement for: 1st person singular *I have 'flu* 3rd person singular *That was a cruel dog* 3rd person plural *They're having a birthday* Subject-verb non-agreement for: 3rd person singular *His head go up and down*

Age group 4 – 4-11	Age group 5 – 5-11	Age group 6 – 6-11
Average number of words per utterance: In conversation with adult: between 1.6 and 4.2 Making up a story from 3 pictures: between 1.2 and 6.3	**Average number of words per utterance:** In conversation with adult: between 2.1 and 4.1 Making up a story from 3 pictures: between 2.2 and 6.1	**Average number of words per utterance:** In conversation with adult: between 2.9 and 5.4 Making up a story from 3 pictures: between 4.8 and 7.8

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	Language content: number and types of words Note: These word counts are valid for a 20 minute conversation consisting of discussion of a picture and telling about a personal experience. The ranges indicated are very wide and should be interpreted with caution.								
Groups	**Total word counts**			**Verbs**			**Nouns**		**Cognitive state verbs (verbs referring to mental activities like *think, remember, promise*)**
	Total Number of Words produced	*Number of Different Words produced*	*Ratio of Number of Different Words to Total Number of Words*	*Total Number of Verbs produced*	*Total number of Different Verbs produced*	*Percentage of Total Number of Words consisting of Verbs*	*Total Number of Nouns produced*	*Percentage of Total Number of Words consisting of Nouns*	
4 – 4-11	Between 9 and 154 (Average 71)	Between 7 and 49 (Average 33)	Between 0.30 and 0.78 (Average 0.47)	Between 3 and 21	Between 2 and 13	Average 15.9%	Between 1 and 20	Average 16.5%	**80%+** of the participants in this age group did not use cognitive state verbs
5 – 5-11	Between 51 and 142 (Average 96)	Between 33 and 63 (Average 49)	Between 0.45 and 0.65 (Average 0.51)	Between 11 and 21	Between 8 and 13	Average 18.5%	Between 11 and 25	Average 17.3%	**80%+** of the participants in this age group did not use cognitive state verbs
6 – 6-11	Between 166 and 439 (Average 279)	**Between** 53 and 99 (Average 73)	Between 0.21 and 0.34 (Average 0.26)	Between 27 and 61	Between 9 and 38	Average 18%	Between 27 and 65	Average 18%	**80%+** of the participants in this age group did not use cognitive state verbs

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	Language use in conversation and story telling (narratives)						
Age groups	**Mazes:** **False starts, Reformulations, Repetitions, Filled pauses**	**Using language for specific purposes**		**Conversation skills**			
		Specific intentions	*Using language to:*	*Conversation activities*	*Responding*	*Connecting sentences*	*Responses/spontaneous utterances*	*Turns taken*

4 – 4-11 **Typical (80-100%)**	*No typical use of mazes identified*	Greeting Making choices Closing a conversation	Interact with others Express personal feelings Provide information	Attending to speaker	Appropriate response: Between 26% and 86% of all responses (mean: 70%)	*No typical connected sentences observed*	Percentage of utterances during conversation with adult consisting of: Response to questions 31.6% – 80.8% Spontaneous utterances 0% - 20% Response to comments 0% – 5.3% No response 3.8% – 68.4%	57% to 100% of available turns in conversation are taken

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5 – 5-11 **Typical (80-100%)**	*No typical use of mazes identified*	Greeting Predicting Making choices Closing a conversation	Interact with others Express personal feelings Provide information Explore the environment Create an imaginary situation	Answering Attending to speaker Maintaining a topic	Appropriate response: between 77% and 94% of all responses (mean 86%)	*No typical connected sentences observed*	Percentage of utterances during conversation with adult consisting of: Response to questions 68.4% – 90.6% Spontaneous utterances 0%- 13.5% Response to comments 0% No response 0% – 14.8%	89.7% to 100% of available turns in conversation are taken
6 - 6-11 **Typical (80-100%)**	Repetitions (occurring on average in 12% of utterances)	Greeting Commenting on an action Describing an event Predicting Making choices Giving reasons Closing a conversation	Make requests Interact with others Express personal feelings Provide information Explore the environment Create an imaginary situation	Answering Volunteering to communicate Attending to speaker Taking turns Acknowledging speaker Specifying a topic Maintaining a topic Giving expanded answers Requesting clarification Clarifying	Appropriate response: Between 61% and 96% of all responses (mean 85%)	Use of **And** *He lie me at the bed and he check my stomach*	Percentage of utterances during conversation with adult consisting of: Response to questions 52.7% – 78.6% Spontaneous utterances 3.8% – 36.3% Response to comments 2% – 6.5% No response 0% – 5.8%	85.7% to 100% of available turns in conversation are taken

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9.3.   Conclusion

The research question stated at the outset of this chapter can be answered with a qualified positive response on the grounds of the results discussed in Chapters 6, 7 and 8. The qualification or restriction involves two features of the profile. Firstly, it concerns the aspects of language behaviour where a typical range of behaviours was sought. In most cases, the range extends from the 10th to the 90th percentile and covers a wide span of possibilities. The lower end of the range is invariably very low, so that the validity of the observations is subject to further investigation by subsequent research projects. Secondly, the youngest group of participants (the Junior group) produced fewer examples of typical behaviour than the two older groups (the Middle and the Senior group). Additional research is required to determine whether variability is a characteristic of this age group, or other language behaviours should be selected to reveal further typical patterns of language behaviour. With these provisos in mind, the researcher affirms that it was possible to identify a basic language profile for the pre-school participants in this research.

The CPP and ECP are intended in the first place to demonstrate the feasibility of using language samples from a small group of EAL pre-school learners to construct a language profile representative of that specific population. The design and presentation of the two profiles are intended as a suggestion of the way in which the relevant information can be made available to speech-language therapists and teachers in collaborative practice in multilingual pre-schools.

Merely providing information, however, will not ensure an improvement in the assessment practices in multilingual pre-schools. Language assessment in multilingual and multicultural settings poses certain challenges. The elicitation materials, the methods of eliciting language behaviours, and the

identity of the adult involved in the process have all been discussed in the literature as significant variables.

A profile of typical language behaviours, however, provides an incomplete tool for early intervention. The collaborative team still needs a list of risk indicators to facilitate the identification of pre-school EAL learners at risk for language impairment and potential language-learning disorder. The next chapter will investigate the feasibility of constructing such a risk profile based on the results of the current research.

9.4.   Summary

The various aspects of language behaviour in the dimensions of language form, language content and language use that were identified as typical for the three age groups of EAL pre-school participants were described in the form of a language profile. Two versions of the profile were suggested, a comprehensive version (CPP) and a version containing the essential information about typical language behaviours (ECP). Some limitations of the proposed profiles were discussed.

CHAPTER 10

THE PROFILE OF RISK INDICATORS FOR LANGUAGE IMPAIRMENT IN EAL PRE-SCHOOL LEARNERS

AIM:
To demonstrate the feasibility of constructing a *profile of risk indicators (PRI),* based on the aspects of language form, language content and language use identified as being typical of the three age groups of pre-school participants as well as certain risk indicators listed in the literature.

10.1   Introduction

The *profile of risk indicators* (PRI) for language impairment in multilingual EAL pre-schoolers in a circumscribed urban context was conceptualised in accordance with Crystal's (1981:22) general definition of a profile, namely, a first approximation of an accurate description of typical language behaviour in the designated population. An attempt was made to isolate the salient, identifying risk features and to organise them into a serviceable instrument that could enable the collaborative teacher-therapist team in the circumscribed multilingual urba area to identify those learners who are at risk for language impairment/language learning disabilities. Tools developed for learners who have English as their first language are generally considered unsuitable and invalid for distinguishing typical from atypical development within an EAL group (Crutchley, Botting & Conti-Ramsden, 1997; Craig & Washington, 2000; Van der Walt, 2001). In the South African context, moreover, few instruments are available even for first language speakers to assess language development or identify young children who are at risk for language impairment, so that adaptation of existing instruments is mostly not an option (Pakendorf & Alant, 1997:3; Pakendorf, 1998:2).

The term "risk" in this chapter relates to the characteristics listed in the literature as *characteristic of children with specific language impairment* (SLI). Because these children cannot be identified on the grounds of any anatomical, physical, or intellectual problems, clinicians and researchers have made many attempts to determine the parameters of *language characteristics* of children with SLI (Owens, 2001:37-38). Language characteristics pertaining to syntax, morphology, semantics, pragmatics and other language-related behaviours have been listed in the literature

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(Chapter 2, Table 2.1). It is these characteristics *indicative of SLI* that are here also denoted as *risk indicators,* that is, if a child displays these characteristics, there is a possibility or risk that the child may manifest a specific language impairment.

Risk indicators or markers (Bishop & Leonard, 2000:20) should ideally assist speech-language therapists and teachers in distinguishing between children with typical language development and children with language impairment. A clinical risk indicator for language impairment should refer to a language behaviour that children with typical language development master at a relatively early age (Bishop & Leonard, 2000:22), so that children with language impairment would clearly perform below children with typical language development. The language behaviour to be identified should also be very specific, so that it would be possible to know what language competencies to teach and to plan intervention accordingly. The two profiles of typical language behaviours in young EAL learners (CPP and ECP) were intended to provide information that would enable the researcher to identify such clinical risk markers.

Two kinds of risk indicators are included in the PRI, namely indicators related to language development characteristics (derived from the CPP) and indicators not specifically related to language development characteristics (derived from the literature on SLI). The developmental indicators are included on the grounds of evidence from the literature that some language behaviours displayed by children with SLI match the behaviours of younger children with typical language development (Nelson, 1998:104; see also Chapter 2, Table 2.2).

The fact that the pre-school participants were multilingual with English as additional language also has some bearing on the inclusion of developmentally based risk indicators. Research in Britain indicated that bi- or multilingual children with SLI did not become proficient in the basic interpersonal communication skills (BICS) of their second or additional language even after two to three years of exposure (Crutchley, Botting & Conti-Ramsden, 1997). In the multilingual South African urban context, the notion of *proficiency* cannot refer to L1-like language behaviour. The *typical* English language behaviour of multilingual EAL pre-schoolers would have to be the

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criterion, since language *difference* is not regarded as language *deficit* (Owens, 2001:417). For this reason, comparisons like *lexical errors that are similar to the types seen in younger normally developing children*, *performs like younger children with regard to syntax,* and *pragmatic behaviour – generally tends to act like younger children* (Nelson, 1998:104) can only be made for the EAL population when typical language behaviours for that population form the frame of reference.

In the same way, the risk indicators not specifically related to language development characteristics also imply comparison to a peer group exhibiting typical behaviours. These indicators include:

1. Acquiring additional vocabulary items more slowly than peers
2. Using fewer questions than peers
3. Co-occurrence of later-developing and earlier-developing syntactic forms
4. General lower level of performance in language production than in language comprehension
5. Having fewer options for tailoring utterances to listener needs than peers
6. Having difficulty understanding the rules for turn-taking in conversations
7. Slower processing of language input than peers
8. short attention span for language-related activities.

(Nelson, 1998:104, 290; Owens, 1999:37-38; Bishop & Leonard, 2000:116-125)

Some of these aspects can be addressed with information from the CPP, for example the percentage of utterances consisting of questions and the co-occurrence of earlier and later developing syntax. Other aspects, like being slower in acquiring new words and taking longer time to process language input, will depend on the experience of the teacher and/or therapist until such a time as norms for the multilingual EAL population have been established.

It has also been reported in the literature (Owens, 1999:37-38) that young children with SLI experience problems with the abilities regarded as prerequisites for language development. These problems include:

1. Poor ability to perceive sequenced acoustic events of short duration
2. Poor ability to use symbols
3. Inadequate mental energy
4. Limitations of play
5. Probably long-term memory storage problems.

(Owens, 1999:37-38; Nelson 1998: 290).

Although these general clinical indicators are not language or culture specific, they still imply comparing the learner being assessed to his or her peers in a specific context. They are included in the PRI but with the caution that no norms are available for comparison.

Although the dimensions of language form, language content and language use were all included in the research to determine a typical language profile on which to base a set of risk indicators, these dimensions are not equally represented in either the CCP-ECP or the PRI. This is in keeping with reports in the literature concerning the universal hallmarks of SLI (Bishop & Leonard, 2000:116-125). While characteristics like slow and protracted lexical development, limited syntactic ability and a general lower level of performance in language production than in language comprehension are noted for many languages, in every language studied to date *grammatical morphology*, an aspect of language *form*, is the area where children with SLI seem to manifest extraordinary problems (Bishop & Leonard, 2000:116-125; Beverly & Goodnoh, 2004:1). This aspect was therefore examined in detail and made up many items of the investigations preparatory to the construction of the CPP and the ECP (Chapter 6).

However, for the very reason that language form is an area of potential difficulty for children who acquire English as additional language as well as for children with SLI (Owens, 2001:217-220), relatively few typical language behaviours relating to language form could be identified, and consequently fewer items concerning language form appear in the PRI than items concerning language use.

10.2   Constructing the PRI

The PRI is presented in the form of a checklist divided into three sections (language form, language content and language use) for three age groups (4-0 to 4-11, 5-0 to 5-11 and 6-0 to 6-11). Ideally, these risk indicators should be subjected to stringent research to determine their sensitivity (the rate of identifying true cases of language impairment) and specificity (the rate of identifying true cases of typical language development), that is, the PRI should avoid false identifications (Bishop & Leonard, 2000:22). The aim of the current research, however, is to determine the possibility and feasibilty of constructing such a profile. The identification potential of the profile will need to be determined in a long-term research project.

It is essential to state clearly that the language behaviours discussed in this chapter as indicative of possible language impairment has bearing *only* on the use of *English* by multilingual EAL pre-schoolers in the specified context and during the stipulated communication activities.   Their typical language behaviours in their primary languages, as well as the risk indicators for those languages, are not known at present.

10.3   List of risk indicators

In Table 10.1, the typical language behaviours of the EAL pre-schoolers identified in the CPP are listed together with an indication of the risk indicators obtained from these observations.   The table also includes notes on the feasibility or practicability of deducing risk indicators in specific cases.

In the right hand column of Table 10.1 the relevant information regarding risk factors implied in the research findings concerning language behaviours in the specified population of EAL pre-schoolers, which was discussed in Chapters 6 to 8, is presented in summarised form to clarify certain aspects of the PRI.   Where language development data is compared to data for other populations provided in the literature, the ages of the pre-school participants are given in months to facilitate comparison.

Table 10.1. List of risk indicators based on information from the CPP

Language form			
Age groups	**Information from CPP – all typical behaviours identified**	**Risk indicators**	**Additional notes**
4-0 to 4-11	Simple sentences	Does not typically communicate in sentences	
	Is/was/am + verb + -ing	Does not use auxiliary verb is/was/am + verb + -ing (*she is washing)*	
	Plural marking omitted in elicited context	Note: typically occurring omission of an element of language form cannot be converted into a clinical marker	
	Mean Length of Utterance (10th to 90th percentile) Calculated in morphemes Conversation 1.9 – 4.4 Test 2-6.8 Calculated in words Conversation 1.6 – 4.2 Test 1.2-6.3	Mean length of utterance in personal narrative + picture description is less than 1.9 morphemes or 1.6 words Note: The range for conversation is provided rather than the range for test context because the conversation context may more easily be reproduced without specific materials	3. Mean length of utterance (MLU) MLU on its own is regarded as a less valuable clinical marker than MLU combined with information regarding errors of morphology and syntax (Owens, 2001:190). For this reason, speech-language therapists working in multilingual pre-schools are cautioned against using MLU as an independent measure of language development. The MLU (calculated in morphemes) for young American English speakers reported in the literature is approximately 1.99 at age 21 to 31 months, ranging to 4.5 at age 41 to 52 months (Hoff, 2004:208; Kuder, 2003:56-58). The MLU in English (calculated in morphemes) for the EAL pre-school participants in a conversation setting ranged from 1.9 at age 48 months, to 5.8 at age 72 months and older, with a MLU of 4.5 appearing at 60 months and older. It would seem that the participants in the current research attained MLUs comparable to those of their American English counterparts aged approximately 20 months younger.
	Simple sentences SVO	**Does not typically communicate in sentences; or uses sentences, but not sentences containing three elements: a subject, a verb and an object (SVO)**	

DN	When using nouns, omits the determiner (*a, the*, etc.) in obligatory contexts – uses noun only	
PrepDN	Does not use *preposition + determiner + noun* (*in the water, on the chairs*)	
"I" as subject	Does not use the pronoun *I* (*I* went to the shop)	
Verb stem (grammatically acceptable) *When I go like this, it's sore* *Verb stem (grammatically unacceptable) *He give me a medicine*	Note: the use of verb stem in both grammatically acceptable and unacceptable contexts cannot be converted to a clinical marker	
Auxiliary *be* used appropriately	Note: use of auxiliary "be" has already been listed as a clinical marker	
Plural omitted in elicited context	Note: typically occurring omission of an element of language form cannot be converted into a clinical marker	
Note: non-marking of possessives may also be found to be typical if sufficient examples are elicited.		
Subject-verb agreement for 1st person singular	Does not use the verb "am" with the pronoun "I" (*I am* in teacher Gina's class)	
Mean Length of Utterance (10th to 90th percentile) Calculated in morphemes Conversation 2.5 – 4.5 Test 2.8-6.9 Calculated in words Conversation 2.1 – 4.1 Test	Mean length of utterance in personal narrative + picture description is less than 2.5 morphemes or 2.1 words Note: The range for conversation is provided rather than the range for test context because the conversation context may more easily be reproduced without specific materials	

	2.2-6.1		
6-0 to 6-11	Simple sentences	Note: the typical use of sentences as such is not a marker here, as there are specific sentence types that occur typically	*Syntactic complexity* Amount of complex syntax has been identified as a factor predicting later academic difficulties (Craig, Connor & Washington, 2003:31), and may therefore be regarded as a clinical risk indicator or marker. The absence of complex syntax at the age of 6 years is regarded as a clinical marker for the English-speaking USA pre-school population, who typically produce clausal conjoining with "and" at the age of 41-46 months, with "because", "when", and "but" appearing soon afterwards (Owens, 2001:326-327). For the population of EAL pre-schoolers who acted as participants in the current study, however, the age for typical production of "and" for clausal conjoining is later than 72 months.
	"Yes" SV SVA SVO	Does not use "yes" to answer questions Does not use sentences consisting of subject, verb and adverbial (SVA) *(they sit <u>on the chairs,</u> I am going <u>tomorrow,</u> he can jump <u>like that</u>)* **Does not use sentences consisting of subject, verb, and object (SVO)** **(*we drink tea*)**	*Clausal structures* **The clausal structures occurring typically in the EAL participants aged 60 months and older correspond to the syntactic structures seen to develop earliest in typically developing English-speaking children between the ages of 28 and 34 months (Owens, 2001:326, 1999:200). The EAL pre-schoolers appeared to be following the accepted characteristic developmental sequence for the development of English syntax but at a later age. Children with SLI have been noted to follow a similar developmental order for syntax to that seen in children with typical language development (Owens, 2001:38). For the EAL population studied in the current research, the developmental norms for comparison would not be those described in the literature on normal language development, but those reported in the current study.**
	DN	**When using nouns, omits the determiner (*a, the*, etc.) in obligatory contexts – uses noun only**	
	PrepDN	Does not use *preposition + determiner + noun* *(in the water, on the chairs)*	

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"I" as subject "Me" as object "My" (possessive) "They" as subject	**Does not use the pronouns I, me, my** **Does not use the pronoun they**	
Is/am/are/was + verb + -ing	Does not use auxiliary verb is/was/am + verb + -ing (**she is washing)**	
Verb stem (grammatically acceptable) *Verb stem (grammatically unacceptable)	Note: the use of verb stem in both grammatically acceptable and unacceptable contexts cannot be converted to a clinical marker	
Progressive aspect (grammatically acceptable)	Note: already mentioned under production of auxiliary verb "be"	
Copula be used appropriately	**Verb "be" is not used as main verb (is, are, am, was, were)** (this is my friend, the boys are naughty, I am Superman)	
Auxiliary be used appropriately	Note: already mentioned under production of auxiliary verb "be	
Regular plural used appropriately	Regular plural is not used, or not used appropriately	
Note: non-marking of possessives may also be found to be typical if sufficient examples are elicited.		

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	Subject-verb agreement for: 1st person singular 3rd person singular 3rd person plural	Note: appropriate use of verb "to be" already mentioned.	
	*Subject-verb non-agreement for: 3rd person singular	Note: the use of both agreement and non-agreement cannot be converted to a clinical marker	
	Mean Length of Utterance (10th to 90th percentile) Calculated in morphemes Conversation 3.1 – 5.8 Test 5.3-8.6 *Calculated in words* Conversation 2.9 – 5.4 Test 4.8 - 7.8	Mean length of utterance in personal narrative + picture description is less than 3.1 morphemes or 2.9 words Note: The range for conversation is provided rather than the range for test context because the conversation context may more easily be reproduced without specific materials	

Language content **Note: Ranges indicated for word counts are very wide and should be interpreted with caution**			
Age groups	**Information from CPP – all typical behaviours identified**	**Risk indicators**	
	TNW **10th – 90th percentile** 9 - 154 **Mean** 70.5	Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 9 – may augment words with gestures, nods and shaking head to indicate "no"	TNW, TDW, TTR It is advised that the proposed typical range of counts, and the derived clinical indicators, be used with caution, as the ranges described are very wide. Means were provided in the CPP/ECP because of the wide scatter of scores, especially for the Junior and Senior groups of participants.
	TDW **10th – 90th percentile** 7 - 49 **Mean** 33.0	Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 7	

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TTR **10th – 90th percentile** .30 - .78 **Mean** 0.47	Type-token ratio (TDW divided by TNW) is lower than 0.3, indicating lack of lexical diversity (poor vocabulary)	TTR Typical American English children between 2 and 8 years have been found to demonstrate TTRs of between 0.42 and 0.50 (Klee, 1992:28; Owens, 1999:192). The lower TTR (mean 0.26) of the group of participants aged 6 to 6-11 years (Senior group) does not indicate a language impairment for these EAL pre-school learners, since it was the typical TTR found for this group. Although true representative ranges could only be determined for the Middle group and for TDW in the Senior group, it is noteworthy that the mean TNW for all groups was less than one third of the TNW reportedly produced by similar-aged groups of American English children within 20 minutes of conversation (Owens, 1999:192). The proviso, however, is that the representative TNW, TDW and TTR indicated for the three age groups of pre-school EAL participants are valid only for a conversation elicited by means of a specific picture stimulus (Minskoff, Wiseman & Minskoff, 1972) and a specific conversational map (Tönsing, 1998:17; Rollins, McCabe & Bliss, 2000).
TNV 10th – 90th percentile 3- 21 TDV 10th – 90th percentile 2 – 13	Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 3 Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 2	TNV, TDV As in the case of TNW, TDW and TTR, it is advised that the proposed norms be used with caution, as they represent a wide scatter of verb counts for each of the three age groups of participants.
V % TNW *Mean TNV as percentage o f mean TNW* 15.9%	Less than 15.9% of the total number of words produced during conversation are verbs	

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	TNN 10th – 90th percentile 1 – 20	Does not produce nouns during 20 minutes of conversation (picture discussion + personal narrative) – may produce pronouns or "*this/that one*"	
	N % TNW *Mean TNN as percentage of mean TNW* *16.5%*	**Less than 16.5% of the total number of words produced during a conversation are nouns**	
	Cognitive state verbs 80%+ of the participants in this age group did not use cognitive state verbs	Note: this information cannot be converted to a clinical marker	Cognitive state verbs It is important to note that low frequency of cognitive state verbs should *not* be used as an indicator of language impairment in this population of multilingual EAL pre-schoolers, since they *typically* did not use cognitive state verbs in their conversations with the research fieldworker.
5-0 to 5-11	**TNW** 10th – 90th percentile 51 - 142 Mean 96.3	Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 51	
	TDW 10th – 90th percentile 33 – 63 Mean 49.4	Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 33	
	TTR 10th – 90th percentile .45 - .65 Mean 0.51	Type-token ratio (TDW divided by TNW) is lower than 0.45, indicating a lack of lexical diversity (poor vocabulary)	
	TNV 10th – 90th percentile 11 – 21	Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 11	
	TDV 10th – 90th percentile 8 – 13	Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 8.	

	V % TNW *Mean TNV as percentage of mean TNW* 18.5%	Less than 18.5% of the total number of words produced during conversation are verbs	
	TNN 10th – 90th percentile 11 – 25	Total number of nouns produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 11	
	N % TNW *Mean TNN as percentage of mean TNW* 17.3%	Less than 17.3% of the total number of words produced during conversation are nouns	
	Cognitive state verbs **80%+** of the participants in this age group did not use cognitive state verbs	Note: this information cannot be converted to a clinical marker	
6-0 to 6-11	**TNW** **10th – 90th percentile** 166 - 439 **Mean** 278.5	Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 166	
	TDW **10th – 90th percentile** 53 - 99 **Mean** 72.7	Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 53	
	TTR **10th – 90th percentile** .21 - .34 **Mean** 0.26	Type-token ratio (TDW divided by TNW) is lower than 0.21, indicating a lack of lexical diversity (poor vocabulary)	
	TNV **10th – 90th percentile** 27 – 61	Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27	

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	TDV **10th – 90th percentile** 9 – 38	Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 9.	
	V % TNW *Mean TNV as percentage of mean TNW* 18%	Less than 18% of the total number of words produced during conversation are verbs	
	TNN **10th – 90th percentile** 27 – 65 **N % TNW** *Mean TNN a s percentage of mean TNW* 18%	Total number of nouns produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27 Less than 18% of the total number of words produced during conversation are nouns	
	Cognitive state verbs **80%+** of the participants in this age group did not use cognitive state verbs	Note: this information cannot be converted to a clinical marker	

Language use			
Age groups	**Information from CPP– all typical behaviours identified**	**Risk indicators**	

| 4-0 to 4-11 | Types of functions:
Personal functions (language used to express personal feelings, attitudes, interest)
Informative functions (using language to provide information)
Interactional functions (using language to establish interactions)

Specific functions elicited with Creaghead's (1984) protocol:
Greeting
Making choices
Closing a conversation | Does not use language to
express personal feelings, attitudes, interest
provide information
establish interactions

When Creaghead's (1984) protocol is applied:
Does not greet people
Does not make choices
Does not close a conversation | Communicative functions – intents and devices
Although the EAL pre-school participants produced few or no requests in the conversation context, requests could be elicited by the use of Creaghead's (1984) protocol. The use of Creaghead's (1984) protocol to obtain an impression of an EAL pre-school learner's optimal pragmatic functioning is therefore advised. |
| | Conversational skills:
Attending to speaker | Does not indicate attending to speaker | |

Percentage of utterances consisting of: Response to question 31.6% – 80.8% Spontaneous utterance 0% - 20% Response to comment 0% – 5.3% No response 3.8% – 68.4%	During 20 minutes of conversation (picture discussion + personal narrative), more than 80% of utterances consist of answers to the adult's questions Note: when 0% positive production is typical, the behaviour is not suitable for a clinical marker During 20 minutes of conversation (picture discussion + personal narrative), more than 68.4% of potential utterances consist of *no response* to adult's questions or comments	
Percentage of available turns taken by 80% of participants *(10th to 90th percentile)* 57% – 100%	Less than 57% of available turns are taken during conversation	Conversational turns taken In the age range 4-0 to 4-11 (48 to 59 months), the EAL pre-schoolers were typically less inclined than the older participants to utilize all available conversational turns. Poor turn-taking is often encountered in young children with language disorders, but poor turn-taking cannot be regarded as a clinical marker or risk indicator for this age group of participants.

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| 5-0 to 5-11 | Types of functions:
Interactional functions
Personal functions
Informative functions
Heuristic functions
Imaginative functions

Specific functions elicited with Creaghead's (1984) protocol:
Greeting
Predicting
Making choices
Closing a conversation

Conversational skills:
Answering
Attending to speaker
Maintaining a topic | Does not use language to
establish interactions
express personal feelings, attitudes, and interest
provide information
explore and organise the environment
create an imaginary environment

When Creaghead's (1984) protocol is applied:
Does not greet people
Does not predict what is going to happen
Does not make choices
Does not close a conversation

Does not answer questions
Does not indicate attending to speaker
Does not maintain a topic of conversation introduced by self or adult | |
| | Appropriate response
76.9% - 93.8%
(mean 85.8%) | Less than 76.9% of responses during conversation are appropriate | Appropriateness of responses
While typical behaviours (demonstrated more than once by 80% or more of the participants in a specific age group) could be identified, the formula of two standard deviations above and below the mean could not be applied to obtain the range of percentages of the total number of response behaviours represented by the individual types of behaviour. The implication is that the scores were widely scattered, so that caution in interpreting these figures is once more advised. |

	Percentage of utterances consisting of Response to question 68.4% – 90.6% Spontaneous utterance 0%- 13.5% Response to comment 0 No response 0% – 14.8%	During 20 minutes of conversation (picture discussion + personal narrative), more than 90.6% of utterances consist of answers to questions Note: when 0% positive production is typical, the behaviour is not suitable for a clinical marker During 20 minutes of conversation (picture discussion + personal narrative), more than 14.8% of potential utterances consist of *no response* to adult's questions or comments	Variety of utterances produced When the formula *mean – 2SD to mean + 2SD* was applied, the wide distribution of percentage scores made it impossible to determine representative ranges for the Junior group, and for all categories except QR/CR in the Middle and Senior groups (Tables 8.2 to 8.4). The percentage scores representative of 80% of each group of participants was therefore determined (10th to 90th percentile), resulting in a wide range of possible scores.
	Percentage of available turns taken *10th to 90th percentile* 89.7% – 100%	Less than 89.7% of available turns are taken during conversation	
6-0 to 6-11	Types of functions: Instrumental functions Interactional functions Personal functions Informative functions Heuristic functions Imaginative functions Specific functions elicited with Creaghead's (1984) protocol: Greeting Commenting on an action Describing an event Predicting Making choices Giving reasons Closing a conversation Conversational skills:	Does not use language to: - satisfy needs and desires (request objects or actions) - establish interactions - express personal feelings, attitudes, and interest - provide information - explore and organise the environment - create an imaginary environment When Creaghead's (1984) protocol is applied: Does not greet people Does not comment on other people's actions Does not describe events Does not predict what is going to happen Does not make choices	

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	Answering Volunteering to communicate Attending to speaker Taking turns Acknowledging speaker Specifying a topic Maintaining a topic Giving expanded answers Requesting clarification Clarifying	Does not give reasons Does not close a conversation Does not answer questions Does not volunteer to communicate Does not indicate attending to speaker Does not take turns in conversation Does not acknowledge speaker Does not specify a topic during conversation Does not maintain a topic introduced by self or adult Does not give expanded answers Does not request clarification of obscure/unintelligible utterances Does not clarify own obscure/unintelligible utterances	
	Appropriate response 61.3% - 96% (mean 85.3%)	Less than 61.3% of responses during conversation are appropriate	
	Connectives - Use of *And* *He lie me at the bed <u>and</u> he check my stomach*	Does not use *and* as an all-purpose temporal, causal, and conjoining connective between sentences	Discourse devices: connectives In general a low frequency of use of connective words was found for the EAL participants. The only connective used to a noteworthy (Middle group) or typical (Senior group) extent was the connective "and", which was used as an all-purpose conjunction for temporal, causal, and adversative functions. This entry in the CPP/ECP and the PRI represents an alternative description of the information provided under *Language form –amount of complex syntax.*

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	Percentage of utterances consisting of Response to question 52.7% – 78.6%	During 20 minutes of conversation (picture discussion + personal narrative), more than 78.6% of utterances consist of responses to adult's questions	
	Spontaneous utterance 3.8% – 36.3%	During 20 minutes of conversation (picture discussion + personal narrative), less than 3.8% of utterances consist of spontaneous utterances	
	Response to comment 2% – 6.5%	During 20 minutes of conversation (picture discussion + personal narrative), less than 2% of utterances consist of responses to adult's comments	
	No response 0% – 5.8%	During 20 minutes of conversation (picture discussion + personal narrative), more than 5.8% of potential utterances consist of *no response* to adult's questions or comments	
	Percentage of available turns taken 10th to 90th percentile 85.7% – 100%	Less than 85.7% of available turns during conversation are taken	

	Repetitions (occurring on average in 12% of utterances)	Repetitions occur in more than 12% of utterances	Mazes
			Since children with SLI have been reported to produce a *high frequency* of mazes (Friel-Patti, DesBarres &. Thibodeaux, 2001), a point of comparison was sought as to the percentage of mazes that typically occurs in the designated EAL pre-school population population. The following clinical markers (indications of possible risk for language impairment) were suggested for two of the age groups of participants:
			Junior group: repetitions in more than 5.7% of utterances
			Senior group: false starts in more than 4.2% of utterances
			                                   repetitions in more than 12% of utterances
			                                   filled pauses in more than 3.7% of utterances
			No typical behaviour was identified for the Middle group of participants.

			Repairing breakdowns (not represented in the CPP/ECP*)* Overall, more responses to the conversational input of the research fieldworker by the pre-school participants were observed than failures to respond. As far as repairs are concerned, however, the number of repair behaviours demonstrated seemed so low that it was not considered a highly relevant category of behaviour to investigate for obtaining markers of typical conversational behaviour in young EAL children engaged in conversation with an adult. The implication is not that the pre-school participants were not able to produce this behaviour, but rather that repairs were not requested from them.
			Narratives The production of narratives by the pre-school participants was compared to the typical developmental sequence and age levels reported in the literature for European North American children (Rollins, McCabe & Bliss, 200:225). The developmental sequence appeared to be similar for the two groups, but the pre-school participants attained the various levels at a later age than their North American counterparts.

The list of risk indicators in Table 10.1, together with the additional risk indicators for SLI discussed in the literature (Nelson, 1998:104; Owens, 1999:37-38; Bishop & Leonard, 2000:116-125), are the basis of the PRI which is presented in the next section.

10.4 Profile of risk indicators for language impairment in EAL pre-schoolers

From the information in Table 10.1, the indications are that it is feasible to construe a profile of risk indicators from a profile of typical language behaviours for a small sample of pre-school learners from a specific circumscribed community. Since there are at present no culturally and linguistically valid tests available to identify learners with SLI in this multilingual population, the only way to determine the validity of the checklist would be to verify the predictions of language impairment based on the use of the checklist, by following the progress of learners identified as *children with SLI* over a number of years.

The notes appearing in Table 10.1 are not included in the PRI, which lists only those behaviours considered to be potential indicators that an EAL pre-school learner of the population represented in the current research is at risk for language impairment and potential language-learning disorder.

Table 10.2.   **Profile of risk indicators (PRI) for language impairment in a group of multilingual EAL pre-schoolers.**

Age group	Risk indicators
	Language form
4-0 to 4-11	1. Does not typically communicate in sentences 2. Does not use auxiliary verb is/was/am + verb + -ing (*she is washing)* 3. Mean length of utterance in personal narrative + picture description is less than 1.9 morphemes or 1.6 words
5-0 to 5-11	**1. Does not typically communicate in sentences; or uses sentences, but not sentences containing three elements: a subject, a verb and an object (SVO)** 2. When using nouns, omits the determiner (*a, the*, etc.) in obligatory contexts – uses noun only 3. Does not use *preposition + determiner + noun* *(in the water, on the chairs)* 4. Does not use the pronoun *I* (*I* went to the shop) 5. Does not use the verb "am" with the pronoun "I" *(I am in teacher Gina's class)* 6. Mean length of utterance in personal narrative + picture description is less than 2.5 morphemes or 2.1 words
6-0 to 6-11	1. Does not use "yes" to answer questions 2. Does not use sentences consisting of subject, verb and adverbial (SVA) *(they sit on the chairs, I am going tomorrow, he can jump like that)* **3. Does not use sentences consisting of subject, verb, and object (SVO)** **(we drink tea)** **4. When using nouns, omits the determiner (a, the, etc.) in obligatory contexts – uses noun only** Does not use *preposition + determiner + noun* *(in the water, on the chairs)* **5. Does not use the pronouns I, me, my**

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	6. Does not use the pronoun *they* 7. Does not use auxiliary verb is/was/am + verb + -ing (**she** *is washing)* **8. Verb "be" is not used as main verb (is, are, am, was, were)** *(this is my friend, the boys are naughty, I am Superman)* 9. Regular plural is not used, or not used appropriately 10. Mean length of utterance in personal narrative + picture description is less than 3.1 morphemes or 2.9 words
Language content	
4-0 to 4-11	1. Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 9 – may augment words with gestures, nods and shaking head to indicate "no" 2. Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 7 3. Type-token ratio (TDW divided by TNW) is lower than 0.3, indicating lack of lexical diversity (poor vocabulary) 4. Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 3 5. Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 2 6. Less than 15.9% of the total number of words produced during a conversation are verbs 7. Does not produce nouns during 20 minutes of conversation (picture discussion + personal narrative) – may produce pronouns or "*this/that one*" **8. Less than 16.5% of the total number of words produced during a conversation are nouns**
5-0 to 5-11	1. Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 51 2. Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 33 3. Type-token ratio (TDW divided by TNW) is lower than 0.45, indicating a lack of lexical diversity (poor vocabulary) 4. Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 11 5. Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 8. 6. Less than 18.5% of the total number of words produced during conversation are verbs

	7. Total number of nouns produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 11
	8. Less than 17.3% of the total number of words produced during conversation are nouns
6-0 to 6-11	1. Total number of words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 166
	2. Total number of different words produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 53
	3. Type-token ratio (TDW divided by TNW) is lower than 0.21, indicating a lack of lexical diversity (poor vocabulary)
	4. Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27
	5. Total number of different verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 9.
	6. Less than 18% of the total number of words produced during conversation are verbs
	7. Total number of nouns produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27
	8. Less than 18% of the total number of words produced during conversation are nouns

Language use	
4-0 to 4-11	1.Does not use language to express personal feelings, attitudes, interest provide information establish interactions 2. When Creaghead's (1984) protocol is applied: Does not greet people Does not make choices Does not close a conversation 3. Does not indicate attending to speaker 4. During 20 minutes of conversation (picture discussion + personal narrative), more than 80% of utterances consist of answers to the adult's questions 5. During 20 minutes of conversation (picture discussion + personal narrative), more than 68.4% of potential utterances consist of *no response* to adult's questions or comments 6. Less than 57% of available turns are taken during conversation

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5-0 to 5-11	1. Does not use language to establish interactions express personal feelings, attitudes, and interest provide information explore and organise the environment create an imaginary environment 2. When Creaghead's (1984) protocol is applied: Does not greet people Does not predict what is going to happen Does not make choices Does not close a conversation 3. Does not answer questions 4. Does not indicate attending to speaker 5. Does not maintain a topic of conversation introduced by self or adult 6. Less than 76.9% of responses during conversation are appropriate 7. During 20 minutes of conversation (picture discussion + personal narrative), more than 90.6% of utterances consist of answers to questions 8. During 20 minutes of conversation (picture discussion + personal narrative), more than 68.4% of potential utterances consist of *no response* to adult's questions or comments 9. During 20 minutes of conversation (picture discussion + personal narrative), more than 14.8% of potential utterances consist of *no response* to adult's questions or comments 10. Less than 89.7% of available turns are taken during conversation
6-0 to 6-11	1. Does not use language to: satisfy needs and desires (request objects or actions) establish interactions express personal feelings, attitudes, and interest provide information explore and organise the environment create an imaginary environment 2. When Creaghead's (1984) protocol is applied:

Does not greet people
Does not comment on other people's actions
Does not describe events
Does not predict what is going to happen
Does not make choices
Does not give reasons
Does not close a conversation

3. Does not answer questions

4. Does not volunteer to communicate

5. Does not indicate attending to speaker

6. Does not take turns in conversation

7. Does not acknowledge speaker

8. Does not specify a topic during conversation

9. Does not maintain a topic introduced by self or adult

10. Does not give expanded answers

11. Does not request clarification of obscure/unintelligible utterances

12. Does not clarify own obscure/unintelligible utterances

13. Less than 61.3% of responses during conversation are appropriate

14. Does not use *and* as an all-purpose temporal, causal, and conjoining connective between sentences

15. During 20 minutes of conversation (picture discussion + personal narrative), more than 78.6% of utterances consist of responses to adult's questions

16. During 20 minutes of conversation (picture discussion + personal narrative), less than 3.8% of utterances consist of spontaneous utterances

17. During 20 minutes of conversation (picture discussion + personal narrative), less than 2% of utterances consist of responses to adult's comments

18. During 20 minutes of conversation (picture discussion + personal narrative), more than 5.8% of potential utterances consist of *no response* to adult's questions or comments

	19. Less than 85.7% of available turns during conversation are taken
	20. Repetitions occur in more than 12% of utterances

Additional risk factors for all age groups. Norms are not available. Observe and compare to behaviour demonstrated by peers.	
Language behaviours (Bishop & Leonard, 2000:116-125; Owens, 1999:37-38; Nelson, 1998:104, 290)	Acquiring additional vocabulary items more slowly than peers Using fewer questions than peers Co-occurrence of later-developing and earlier-developing syntactic forms Having fewer options for tailoring utterances to listener needs than peers Having difficulty understanding the rules for turn-taking in conversations Slower processing of language input than peers Shorter attention span for language-related activities than peers.
General language-related behaviours (Owens, 199:37-38; Nelson, 1998:290).	Poor ability to perceive sequenced acoustic events of short duration Poor ability to use symbols Inadequate mental energy Limitations of play Indications of long-term memory storage problems.

The PRI and similar checklists can be utilised in collaborative practice by speech-language therapists and teachers throughout the pre-school years but especially at the time when pre-schoolers are being prepared for transitioning to primary school, in the way that Nelson (1998: 290) provided "danger signals" to support teachers in identifying pre-school learners at risk for language impairment. The pre-school learner's need for timely intervention, the teacher's need for support in decision-making, and the school's need for optimal services to learners (Wren, Roulstone, Parkhouse & Hall, 2001:109) can be addressed. Such practice can contribute to the attainment of the collaborative-consultative ideal for therapist-teacher teams in South Africa proposed by Hugo (2004).

10.5 Conclusion

The risk indicators obtained from the CPP and from the literature were organised in the PRI. Although comparatively few items are listed on the PRI for the age group 4-0 to 4-11 of the EAL pre-school participants, the total number of 17 items listed for that age group could allow a speech-language therapist or teacher to identify learners who should receive in-depth assessment of language capabilities. For the learners in the age groups 5-0 to 5-11 and 6-0 to 6-11 more items were extracted from the CPP than for the younger group.

The information in the CPP/ECP and in the PRI requires some verification and refinement, but it represents a point of departure for speech-language therapists to gather the knowledge about their multilingual clients that they are required to have in order to practise responsibly (South African speech-language-hearing association [SASLHA], 2003). The research that was conducted with the aim of constructing these profiles was informed by clinical practice involving multilingual pre-school learners and their teachers. It may now be possible to utilise these instruments in practice and thereby inform further research aimed at revising and optimalising the profiles, so that they may be considered appropriate tools to use in evidence-based practice (Kamhi, 1999).

Every attempt was made in the current research project to obtain as much information as possible from the conversation context, with as little recourse to test materials as possible. This is in accordance with the view that language sample analysis is a tool that can be used frequently for documenting "without language or cultural bias, children's ability to use language across a range of communicative contexts" (Evans & Miller, 1999:102).

10.6 Summary

This chapter reports how the salient, identifying risk features were identified and organised into a serviceable instrument that should enable the collaborative teacher-therapist team in the circumscribed multilingual urba area to identify those learners who are at risk for language impairment/language learning disabilities. The term "risk" was defined with reference to *characteristic of children with specific language impairment.* Two kinds of risk indicators are included in the PRI, namely indicators related to language development characteristics (derived from the CPP) and indicators not specifically related to language development characteristics (derived from the literature on SLI). Since there are at present no culturally and linguistically valid tests available to identify learners with SLI in this multilingual population, the validity of the checklist can only be determined by following the progress of learners identified as *children with SLI* over a number of years.

CHAPTER 11

CONCLUSION[1]

AIM: To draw general conclusions from the research findings, to critically evaluate the research, and to derive implications for clinical practice and future research.

"Evidence based practice … is in essence, the science part of the art and science of therapy" (Threats, 2002:xvii)

11.1 Introduction

The current strong trend toward evidence-based practice places strenuous demands on the collaborative therapist-teacher team in multilingual pre-schools. What was previously recognised as "best practice' is now required to be tested and evaluated. ECD practitioners have to follow the clinical research literature in order to evaluate the relevance of the findings and make informed decisions to the benefit of the families and communities they serve (Bothe, 2004:3). The current research in hand aimed to render results concerning language assessment that can provide a basis for decision-making in ECD once these results have been clinically tested in a systematic way.

Furthermore, language research and analysis has for several decades been an ongoing centre of activity for linguists, educators, and speech-language therapists (Hoff, 2005:5ff). The focus of these activities is now increasingly on multilingualism, which has become a global issue (Brown & Attardo, 2005:88). Although language in education will always be a highly politicised topic contextualised by past events and present policies (see for instance Peirce & Ridge, 1997:171, 172), the current research on multilingualism in South African schools and pre-schools, sparse as it is, is directed towards the future and has a decided emphasis on thoughtful application to the benefit of learners. One of the concerns addressed by South African researchers to date is the assessment of language in multilingual learners at various levels of education (Jordaan, 1993; Nxumalo, 1997; Pakendorf & Alant, 1997; Van der Walt, 2001; Van Dyk &

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[1] I am indebted to Dr D.C. Swanepoel for the organisation and layout of this chapter.

Weideman, 2003).   The link between the political dimensions of multilingualism and practice is often found in the notion of accountability.

The relationship between research and practice, therefore, which is implicit in evidence-based practice, also guides relevant research and accountable clinical practice for speech-language therapists in this uniquely South African framework.   This is evinced in the Health Professions Council of South Africa's (HPCSA's) recent statement that "[a] number of the Council's Professional Boards have recognised the importance of quality and timeous research on issues relating to quality and the availability of services provided by the practitioners within their scope" (HPCSA, 2005a:9).

The current research aimed to contribute to accountable, research-directed clinical practice, the first step towards actual evidence-based practice, by investigating and reporting on *the feasibility of constructing a language profile for pre-school EAL learners in a circumscribed urban area.*   This research was intended to meet the unique need of the local South African context in a socially and economically justifiable manner (Hugo, 1998:12; Swanepoel, 2005:298).   The way in which the researcher set about achieving the stated aim, and the extent to which the task was accomplished, is discussed in the sections of this chapter that follow.

11.2   Conclusions

The aim of the study was achieved through the realisation of specific objectives.   The resulting conclusions are summarised in the following paragraphs.

Objective 1   To analyse selected aspects of language data from a group of EAL pre-school learners in an urban setting in South Africa, relating to form, content and use

Analyses of language form, content and use were conducted on language samples elicited from three age groups of multilingual EAL pre-schoolers.   Sufficient information could be obtained from approximately 20 minutes of conversational interaction between each pre-school participant and the adult research fieldworker to provide data relating to ten aspects of language form, eight aspects of language use, and nine aspects of language content.   The results, presented in chapters 6, 7 and 8, were summarised in Table 6.38,

Table7.14 and Table 8.30. The conclusion can be drawn that it is possible to utilise language data from one typical conversation interaction between a pre-school EAL learner and a speech-language therapist to obtain information on a wide spectrum of language behaviours. The speech-language therapist may then draw on this information either to assess the language of an individual learner, or to build a database of typical language behaviours for a particular group of EAL learners.

Objective 2   To identify typical language behaviours, if any, to be included in a language profile for these specific EAL pre-schoolers

Based on the analyses, certain typical language behaviours were identified. Two kinds of data were involved:

1. Categorical data describing phenomena that either occurred or did not occur
2. Quantitative data describing phenomena that occurred in a certain measure

Typical language behaviours of the EAL pre-school participants (demonstrated more than once by 80%-100% of the participants in an age group) were identified for nine aspects of language form, one aspect of language content, and six aspects of language use. *Noteworthy behaviours* (demonstrated more than once by 50%-70% of the participants in an age group) were identified for nine aspects of language form, and seven aspects of language use. A *representative range* of behaviour was identified for one aspect of language content. For six aspects of language content and one aspect of language use, a true representative range (-2SD to +2SD) could not be determined as the scores were too widely scattered. For language form and language use, therefore, clinically useful results were obtained, while the results for language content were less useful. Overall, however, these results are valuable in that they demonstrate the feasibility of using language data collected from a small group of EAL pre-schoolers to construct a profile of typical English language behaviours. It is assumed that typical behaviours relating to language content can also be obtained by means of either a modified elicitation procedure or a modified processing procedure, or a combination of both. In principle, the conversation context was appropriate for the purpose of collecting data for a profile of typical language behaviours. The information organized in the form

of a profile can be utilised to plan an appropriate programme to facilitate language development. Such a programme can have two objectives: firstly, to provide activities within areas of strength, that will develop self-confidence and allow learners to enjoy activities in which they experience success; secondly, to encourage and facilitate the acquisition of additional language abilities in areas of relative weakness that are indicated by the profile.

Objective 3   To identify possible risk indicators for typical EAL learners in this particular context by comparing the constructed/created profile to the indicators for Specific Language Impairment found in the literature

A comprehensive pre-school profile (CPP) was constructed to provide an overview of the English language behaviours typically encountered in the three age groups of EAL pre-school participants from a circumscribed urban area. Since the language behaviours identified were very specific, and children with language impairment would clearly perform below children with typical language development (Bishop & Leonard, 2000:22; Nelson 1998:104), these language behaviours were then re-interpreted as a set of *risk indicators,* that is, if a child displays these characteristics, there is a possibility or risk that the child may manifest a specific language impairment. The *CPP,* therefore, was intended to provide information that would enable the researcher to construct the *PRI* (profile of risk indicators). The CPP and the derived more compact Essential Classroom Profile (ECP) were presented in Section 9.2.1 and Section 9.2.2. The selection of aspects of language behaviour for inclusion in these profiles was based on the characteristics of SLI discussed in the literature (as presented in chapter 4). It may be concluded, therefore, that it was possible to identify risk factors for language impairment from the lists of typical behaviours represented in the two profiles, the CPP and the ECP. Moreover, the ECP was developed specifically for the use of pre-school teachers who work in collaborative practice with speech-language therapists. It therefore not only meets the need of the teachers, but also provides the therapist with a tool to facilitate collaborative interaction with teachers.

Objective 4 To compile a set of profiled indicators for Specific Language Impairment and Language Learning Disorder in young (pre-school) EAL learners in a specific urban setting in South Africa

Developmental language indicators from the CPP together with additional indicators of specific language impairment (SLI) obtained from the literature were used to construct the Profile of Risk Indicators for EAL pre-schoolers in a specific multilingual urban setting. The PRI was presented as an example of an instrument to be utilised by the collaborative team of speech-language therapist and pre-school teacher in the designated setting, to enable them to distinguish between learners who display typical characteristics of EAL and learners who are at risk for language impairment and subsequent language learning disorders. The PRI can be described as a set of danger signals (Nelson, 1998:290) that are of special significance for early identification of language impairment and secondary prevention of language learning disorders. The study demonstrated, therefore, that language data from pre-schoolers could be applied to deliver utilisable outcomes for the collaborative practice between speech-language therapists and pre-school teachers.

In this way, the results of this research addressed the unique need of the local South African context in a manner that allows access by pre-schools regardless of their social and economic status (Hugo, 1998:12; Swanepoel, 2005:298). Moreover, a point of departure was created for the development of evidence-based collaborative practice between pre-school teachers and speech-language therapists who share the concern that the language of learning and teaching should be accessible to all learners in order to allow them to develop their full academic and personal potential.

The research results can only be optimally utilised, however, if both the strengths and the weaknesses of the study are carefully examined and considered. The accountable ECD professional can then make informed decisions about harnessing the information to the advantage of young children and their families.

11.3   Critical evaluation of the study

Critical reflection on both the process and the outcomes of completed research ensures the appropriate interpretation of the research results (Mouton, 2001:125) as well as meaningful continuation of the research endeavour, thus ensuring sustainable impact in the case of clinically related research. The current research is viewed as being the first step in an attempt to meet the need regarding locally relevant information on the development of English as additional language in multilingual pre-schoolers and related language impairment evidenced by this population.

Table 11.1 provides a critical evaluation of the study, based on the strengths, limitations and potential contribution of the research design, the nature of the data as well as data collection and processing, the participants in the study and their context (with acknowledgement to Swanepoel, 2005, for the format of the presentation).

Table 11.1.   Critical evaluation of the study.

Research design		
Strength The descriptive design (Leedy & Ormrod, 2004:179) together with the clinical and constructivist perspective allowed the researcher to investigate and draw conclusions from all aspects of language that were encountered during the conversations between the pre-school participants and the research fieldworker.	**Limitation** The general design for a descriptive study of this nature should optimally include a qualitative dimension to allow for a detailed description of the context and all the role players in that context (Leedy & Ormrod, 2004:134, 137-138). These role players were mentioned in chapter 5 (parents, principal, teachers, learners, speech-language therapist). However, it would be valuable to present the perspective of representative members from each group of role-players, in order to provide a better understanding of the specific context (Hammer, 1998; Leedy & Ormrod, 2004:139). Such an understanding would enable the researcher to ensure that the research meets the needs of the community (Hugo, 1998).	**Potential contribution**
Nature of data		
Strength The nature of the data that was collected ensured a comprehensive view of language as advocated by Damico (1991a) and subsequent authorities in the field of assessment of additional language.	**Limitation**	**Potential contribution** The encompassing approach to language provides a prototype for the development of locally relevant language assessment instruments. Although the various aspects of language are described separately, an integrated perspective is obtained when language form and language content aspects are interpreted against the background of language use, as advised by Damico(1988, 1991a, 1991b, 1993) and Owens (1999:5).
Data collection		
Strength Researchers have found that structured elicitation tasks produce more advanced child language than unstructured conversational sampling (Owens, 2001:433). The data collection procedures that were utilised in the current research (summarised in Table 9.1) included both structured conversation and direct elicitation. These procedures enabled the researcher to obtain comparable data for different ages, personalities, and cultures. The data collection was authentic and functional	**Limitation** The method of data collection may have been restrictive in that it could have included an unstructured conversation and, ideally, language samples should be collected in several different contexts (Damico, 1991b; Owens, 1999:121; Owens, 2001:442). In the present study, however, the data collection activities were planned to be non-intrusive and therefore were restricted to one context only. Moreover, the research fieldworker's clinical experience with young EAL pre-schoolers was that unstructured conversation settings produced very little output on the part of the learners. The learners in the Senior group (age 6-0 to 6-11) may have been	**Potential contribution** The procedures described in Table 5.2 and Table 9.1 provide a suggested set of procedures for collecting the types of data required in assessment of EAL in multilingual pre-schoolers. Speech-language therapists can utilise the research report as well as the results to plan for collecting representative language data from EAL pre-schoolers in a specific setting, drawing up a profile of typical language behaviours for that group of learners, and assessing the language behaviours of those learners about whom the teacher is particularly concerned. At present, there are neither appropriate tests available (SASLHA, 2003) nor any

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(Damico, 1993) in that it took place in the typical pre-school setting, during the school day, with activities typically shared by an adult and a learner in this setting.	an exception, but it would not have been possible to compare their data to data from the two younger groups.	structured suggestions for a set of elicitation and analysis procedures.
Data processing		
	Limitation The processing of data for language content in particular, but also for MLU, produced a high level of variability in scores. Alternative data processing methods or procedures need to be investigated. For MLU, the measures *MLU50* and *MLU5 longest* to obtain parity for purposes of comparison suggested by Pan (1994:30 ff) may provide more useful information. Language content may be more profitably investigated by looking at the pre-schoolers' comprehension than at their language expression (Owens, 1999:183). In addition, the pre-schoolers' ability to learn a novel noun could provide valuable information on their knowledge of the category noun (Conti-Ramsden, 2002:253).	
Participants		
Strength The pre-school participants represent a typical section of the pre-school population for a specific geographical area with a great number of pre-schools, so that the results are applicable to a large number of pre-schools with comparable demographics (Naudé, Meyer, De Jongh & Du Plessis, 2000).	**Limitation** The relatively limited number of pre-school participants limited the potential number of typical behaviours that could be identified. However, the number of typical behaviours that were identified was sufficient to allow for a distinction between learners who exhibit language difference and those who are at risk for language disorder.	
Context		
Strength The pre-school context lends itself to collaborative practice between teachers and speech-language therapists (Du Plessis, Hugo & Soer, 2000), and results regarding typical language behaviours were presented in two forms (CPP and ECP) that would be accessible for both teachers and therapists.	**Limitation** The fact that data was collected from one pre-school context only limits the applicability of the findings to that context or contexts with similar characteristics. However, the detailed manner in which the research was described ensures that the procedures may be replicated in other contexts (Leedy & Ormrod, 2004:88).	**Potential contribution** The results of this study can be utilised to provide a tool for ECD practice (early identification of language impairment and prevention of language learning disorder) as well as providing basic developmental data. The dearth of basic data as well as assessment instruments in the multilingual South African context has been pointed out by SASLHA (2003) and is experienced regularly by speech-language therapists in practice in all parts of the country. The research results, therefore, address a much-felt need in the local context (Hugo, 1998:12).

The current study succeeded in demonstrating the feasibility of constructing a profile of typical English language behaviours, notably for language form and language use, for a specific group of multilingual EAL pre-schoolers. The information contained in this profile was implemented to propose a profile of risk indicators for language impairment in these pre-schoolers. The three profiles (CPP, ECP and PRI) that were put forward contribute toward developing accountable, evidence-based practice in ECD in South Africa's multilingual urban contexts.

11.4   The way forward

The potential contribution of the study in hand, as indicated in Table 11.1, refers mostly to collaborative practice between speech-language therapists and pre-school teachers in identifying young learners at risk for language impairment and potential language learning disorder. However, the application of the information obtained from the results of this study may be broader. The scope of the speech-language therapist's support services in the pre-school is not restricted to intervention for communication pathology, but extends to the facilitation of language development in all cases where such development is at risk (Wilcox & Shannon, 1999:216). In delivering these services the therapist acts as partner in a collaborative team with pre-school teachers and parents, performing functions of consultation, collaborative planning, shared decision making, and creative problem solving (Wilcox & Shannon, 1996:218; Throneburg, Calvert, Sturm, Paramboukas & Paul, 2000:10).

In all of these activities in the multilingual pre-school the therapist needs to maintain accountability, which depends to a large extent on evidence-based practice. Evidence-based practice, in turn, depends on researchers who provide clinicians with relevant research upon which to base their clinical decisions (Threats, 2002). The results of the current research will be relevant for speech-language therapists who practice in ECD settings, especially those involved in pre-schools in urban areas in the Gauteng province of South Africa. The current results are also intended to be the point of departure for further studies to increase the evidence base.

The implications of the research results for clinical practice and for continued research to support clinical practice are provided in the following sections.

11.4.1. Clinical implications

The research results showed that it was possible to obtain, for a specified group of multilingual EAL pre-school learners, a set of English language data in the form of profiles that

1. Can be used in collaborative practice by speech-language therapists and pre-school teachers
2. Can be implemented for the facilitation of language development as well as for the identification of SLI
3. Can be constructed from language samples elicited by means of methods and materials achievable in all settings and for all budgets
4. Can serve as point of departure for evidence-based practice in assessing the language behaviour of multilingual EAL pre-schoolers in settings where neither the teacher nor the therapist have access to the learner's primary language, and English is the language of mutual understanding.

Speech-language therapists and teachers may wish to follow the same procedures for obtaining language profiles for the learners in their particular setting, or those who work within the Pretoria inner city area may want to use the profiles in their ECD practice. However, they will need to bear in mind not only the materials and the procedures that were used in the current research, but also the conversational dyad. The language samples were obtained in conversations between pre-schoolers (the pre-school participants) and an adult (the research fieldworker). Speech-language therapists and pre-school teachers are often advised to obtain language samples from young children in natural settings and specifically in conversation with peers (Ehren, 2000:219, Kuder 2003:218). In a multilingual setting such as that typically found in the urban areas of Gauteng, however, it is highly unlikely that a conversation with peers will be conducted only, or even mainly, in English. Children often devise their own peer group communication strategies. For this reason, the researcher heeded

Kuder's (2003:218) advice: "The ideal of assessment in a natural setting must be balanced by the realities of the limitations".

11.4.2. Research implications

The critical review of the research in Table 11.1 demonstrates that the current research opened up a large number of possibilities for continued research in a clinical context. Some of the proposed studies will entail revising, modifying, and improving various aspects of the findings reported in this study. Other studies may aim to answer questions raised by the current findings. There are also several ways in which the research can be followed up or expanded. Examples of these possibilities for further research are discussed in the following paragraphs.

Aspects that seem to require *further investigation in order to propose a more trustworthy set of profiles* include the following:

1. The validity of the norms for typical language behaviour at the various ages should be investigated by including larger numbers of participants (De Vos, Strydom, Fouché & Delport, 2002:200). The descriptive research design utilised in the current study can be applied and participants from a number of pre-schools with corresponding demographic characteristics can be included to obtain a truly representative sample of the relevant population (Leedy & Ormrod, 2004:198).

2. The validity of the findings for the various age groups as developmental indicators should be tested by longitudinal developmental studies of one or more groups of participants over a long term (Leedy & Ormrod, 2004:183). A particular group, or groups, of pre-school learners can be followed over the three years of their sojourn in the pre-school to determine a true developmental or "acquisitional" profile of language behaviours (Crystal, 1981:22).

3. Ideally, the risk indicators of language impairment should be subjected to stringent research to determine their sensitivity (the rate of identifying true cases of language impairment) and specificity (the rate of identifying true cases of typical language development), that is, the PRI should avoid false

identifications (Bishop & Leonard, 2000:22) Longitudinal studies and predictor analyses (Bishop & Leonard, 2000:24) would be an appropriate approach to investigating the validity (sensitivity and specificity) of the items on the PRI. These studies would, however, have to be conducted in every context where the specific language profile for pre-schools differs from the profile of the original sample population as described by Du Plessis and Naudé (2003).

4. Specific aspects of data analysis need to be investigated. As indicated in Table 11.1, alternative data processing methods need to be investigated for MLU. *MLU50* and *MLU5 longest* (mean length of 50 utterances, and mean length of the 5 longest utterances for each participant) have been suggested by various researchers to obtain parity for purposes of comparison (Pan, 1994:28, 30 ff). Language content, as suggested in Table 11.1, may be more profitably investigated by looking at the pre-schoolers' comprehension than at their language expression (Owens, 1999:183). However, comprehension is more easily investigated in specific structured tasks (tests) than in conversational contexts, as discussed in chapter 5. The pre-schoolers' ability to learn a novel noun could provide valuable information on their knowledge of the category noun, but knowledge of the category verb will probably not be measurable (Conti-Ramsden, 2002:253). Skill in word-learning can be measured by determining the number of presentations required for a learner to retain the new word (Cont-Ramsden, 2002:253).

Further research will provide answers to the following questions that were raised by the results of the study in hand:

1. Current views of the nature of language, which guide approaches to research on language development, include a view of language as a social behaviour (Hoff, 2005:12) and this places the focus on children's language use. The *PRI*, therefore, may engender some interest among researchers following this trend. The question raised by the results of the current research is: to what extent would the aspects of language use that the pre-school participants demonstrated have been influenced if other conversational partners had been introduced? The answer to this question can be obtained by rephrasing the problem as follows:

the purpose of the research would be to analyse the aspects of typical language produced in interaction with a specific conversation partner, in comparison to the aspects of typical language produced in interaction with an alternative conversation partner, in the context of the pre-school (De Vos *et al*., 1998:101). A within-subjects experimental design (Leedy & Ormrod, 2004:237) would be appropriate in this case.

2. Conversational interactions between real parents and real children are regarded as "the empirical bedrock" of the study of child language acquisition (Sokolov & Snow 1994: 410). In the case of EAL, the interactions probably need to be between children and caregivers in the educational setting, but possibly also between children and peers. However, the latter dyad is difficult to study because of the effect of intrusion on the part of the researcher who records the conversations. There is also a higher probability of non-English conversation. No instances of code switching were recorded in the language samples obtained for the current study. The question to be answered is the following: what influence would the introduction of various conversation partners have on the nature of the language (with regard to code mixing or code switching) used by the pre-school participants? In this case, the research question could be answered by implementing a multiple baseline experimental design (Leedy & Ormrod, 2004:237) to show the effect of the different conversation settings for a single pre-school learner at different times or during different activities.

3. Research in other settings has shown that story retelling tasks, when presented orally and visually with pictures, yield the longest and most grammatically complete utterances (Gazella & Stockman, 2003; Schneider& Dubé, 2005). The question is: what influence would the introduction of pictures in a story map task have on the narratives produced by the pre-school participants? An alternating experimental design (Leedy & Ormrod, 2004:237) could be applied to compare the effect of the two conditions (story telling with and without accompanying pictures) on the narratives produced by a group of pre-school learners.

The following suggestions may act as guidelines for continuing the present line of research:

1. Different language groupings and different geographical areas in South Africa could yield different language data and therefore different profiles. It would be valuable to ECD professionals to have relevant information for various groups of EAL pre-schoolers, since it is not yet known what the characteristics of various groups may be. A possibility exists that different languages may exert different influences on the nature of the English language produced by EAL pre-schoolers (Owens, 2001:431). The current study could be duplicated in multilingual urban settings with different language profiles in the pre-schools, such as the Western Cape where isiXhosa would probably be represented more strongly than in Gauteng, and other languages may feature less prominently (see Census in Brief, 1998).

2. In addition to obtaining profiles of typical language behaviour for various geographical areas, researchers in South Africa could also use the data from the studies suggested above to investigate the possibility of language-specific indicators of risk for SLI. If various languages exert different influences on the English used by the multilingual pre-schoolers, the PRI that is intended to be used for early identification of learners at risk for language impairment will also differ. The research for the purpose of determining the possibility of language-specific indicators of risk for SLI would fall within the domain of applied linguistics, and would take the form of descriptive studies.

3. It would be a significant contribution to the development of evidence-based practice if researchers in South Africa could obtain group-specific norms for the general risk indicators listed in chapter 10, in the same way as for the indicators based on language behaviours. False positive identification of learners at risk for SLI as well as under-identification of these learners in a particular context could be avoided on the grounds of such group-specific norms. The norms could be obtained in descriptive studies of the same nature as the study in hand.

4. Child development overall is influenced not only by the child's physical characteristics and immediate environment, but also by the child's personality

characteristics, social factors that impinge on the family, and culturally determined attitudes toward child-rearing and related matters (Herbert, 2003:7). All of these factors could be investigated for different multicultural populations in South Africa, to provide ECD practitioners with potential explanations for learners' communicative behaviour and thus to enable them to plan appropriate intervention strategies. This research purpose places the proposed investigations within the domain of qualitative research (Leedy & Ormrod, 2004:95). Researchers who plan these studies would need to select or develop appropriate qualitative research designs.

Based on the overview of the clinical and research implications, as well as the critical review of the study, an action plan for language assessment in multilingual EAL pre-schoolers can be proposed. In a situation that is less than ideal, where it is not viable to assess the language of a young child in his or her primary language because the speech-language therapist and/or pre-school teacher has no access to that language, where English is the language of mutual understanding but the child is still in the process of acquiring the basic English for interpersonal communication, it may yet be possible to conduct a language assessment.

By analysing the English language behaviour of the pre-schooler, the collaborative teacher-therapist team may be able to distinguish between language behaviour typical for that population and language behaviour indicative of risk for language impairment. In addition, the teacher-therapist team may be able to devise activities to facilitate the development of English in multilingual pre-schoolers, so that the prospects for the acquisition of cognitive academic language is improved and all learners may have access to the education curriculum.

11.5 A proposed action plan for facilitating language development and identifying learners at risk for language impairment in multilingual pre-schools

The results of the current study may be useful in providing a course of action to the collaborative team of speech-language therapist and pre-school teacher for language

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assessment and the facilitation of language development according to the following guidelines.

1. Suggestions are offered for activities to elicit language samples that will provide the language data required for either constructing a set of norms for a particular population, or assessing the language of an individual or a group of children in the Pretoria inner-city area. These activities are listed in chapter 9, Table 9.1.

2. Procedures for analysing the language data obtained from pre-schoolers can be found in Table 5.5a, Table 5.5b and Table 5.5c.

3. The speech-language therapist may use the comprehensive pre-school profile (CPP) (chapter 9) to obtain an overview of typical English language behaviours relating to language form, language content and language use demonstrated by multilingual EAL pre-schoolers.

4. The speech-language therapist and teacher together may utilise the CPP and the essential classroom profile (ECP) (both described in chapter 9) to plan classroom-based language activities aimed at facilitating the development of English language in the pre-school learners.

5. The teacher-therapist team may structure collaboration with parents by
   a. explaining their role in continuing to develop the primary language or languages in the home, and
   b. providing them with particulars about the language development activities as well as the content of the classroom curriculum.

6. The speech-language therapist may act as consultant to support the teacher in using the profile of risk indicators (PRI) (chapter 10) for preliminary identification of learners to be referred for language assessment by the therapist.

The therapist may use the PRI to obtain suggestions for areas of focus in in-depth assessment of language behaviour, preferably dynamic assessment. The PRI, together with the CCP, would optimally form part of the speech-language therapist's equipment in the ongoing process of dynamic assessment, which has been found to increase the effectiveness of identification of potential language impairment in children from culturally and linguistically diverse backgrounds (Jacobs, 2001:217). If an area of

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difficulty were identified on the PRI, the CPP could be used to determine which task to teach to the child in order to measure the degree to which this training results in learning (Jacobs, 2001:218). If learning takes place, the presence of SLI is regarded as less likely.

These guidelines may be summarised in the form of an action plan for language assessment and the identification of learners at risk for SLI in multilingual pre-schools in South Africa. The proposed action plan appears in Figure 11.1.
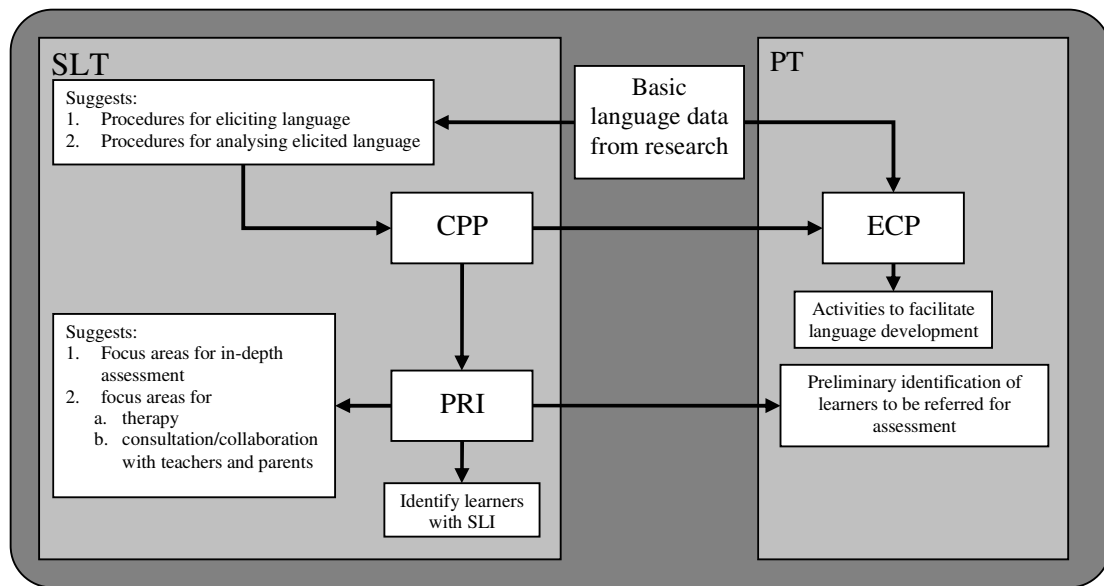
Figure 11.1. Action plan for facilitating language development and identifying learners at risk for language impairment in multilingual pre-schools

Key:
SLT = speech-language therapist
PT = pre-school teacher

Accurate record keeping of this process over a period of time could provide ECD professionals with evidence of effective procedures for their clinical practice. This is in keeping with the view of evidence-based practice as "a method of approaching clinical decision making by looking at relevant specific clinical research and/or by looking through systematic clinical observations" (Threats, 2002:xvii).

11.6 Final comments

Speech-language therapists who work in education settings in various countries have experienced three shifts in their service delivery: from the traditional pull-out model towards a collaborative classroom-based approach (Throneburg, Calvert, Sturm, Paramboukas & Paul, 2000:10), from serving a population with one main language to working in a multilingual setting (Brown & Attardo, 2005:88); and from assuming they were familiar with best practice to meeting the strenuous demand for evidence-based practice (Threats, 2002; Bothe, 2004:3-4).

These three influences – the necessity of collaborative practice, the reality of multilingualism, and the demands of evidence-based practice – have found echoes in the field of practice for speech-language therapists in South Africa (SASLHA, 2003). Bearing in mind Hoff's (2005:xv) caution that "the questions are likely to outlive the tentative answers that the field can provide at this time", some suggestions for assessing language in multilingual pre-schools and identifying learners at risk for language impairment are provided in this chapter. However, some of the suggestions that were put forward may seem to ECD professionals to place new or additional demands on them.

This study does, indeed, extend a challenge to ECD professionals in South Africa: They are challenged "to engage in a growth process prompted by an expanded research base … coupled with appreciation of the expertise [they] have to offer" (Ehren & Ehren, 2001:234). Speech-language therapists and teachers in collaborative practice in multilingual South African pre-schools have at hand everything they need to provide the pre-schoolers in their care with the best possible opportunity for fulfilment of their academic and social potential. They can do this in an accountable and enjoyable way. This study is intended as a contribution toward that purpose.

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APPENDIX A

THE KOMMUNIKA PROJECT

The Kommunika project

The Kommunika project (Naudé,   Meyer, de Jongh, & du Plessis, 2000; Du Plessis & Naudé, 2002) was launched in 1999 to find answers to the following questions:

- *What are the needs of pre-school teachers and caregivers with regard to aspects of their programme aimed at the development of language skills in pre-school learners who are not mother tongue speakers of the language of instruction?*

- *What are the possible needs of the pre-school learners in a multilingual environment with regard to the development of skills in the language of teaching and learning?*

- *What can the speech-language therapist bring to the multilingual pre-school environment in order to fulfil the role of support person for both educators and learners?*

 The aim of the first phase was to determine the strengths and needs of pre-school teachers regarding their role in facilitating communication development in multilingual pre-school learners, and to determine the language needs of the multilingual pre-schoolers as observed by the pre-school teachers.

The second phase of the project sought to collect data on the language output of the multilingual pre-schoolers in a natural setting, using ethnographic principles and various elicitation techniques (to be described in more detail later). The aim of this phase was to provide a comprehensive description of the English language output of pre-schoolers in a multilingual school setting.

The third and final phase of the project aims to develop guidelines for a support "package" for the specified pre-school setting. Participatory action research will be used to involve the educators (pre-school teachers) in the development of the final package. This phase is at present in the planning stages.

Although the phases of the project have been described in a linear fashion, in the actual implementation they overlap and the outcomes of one phase inform both the planning and execution of the others. A schematic representation of the project is offered in Figure 1.
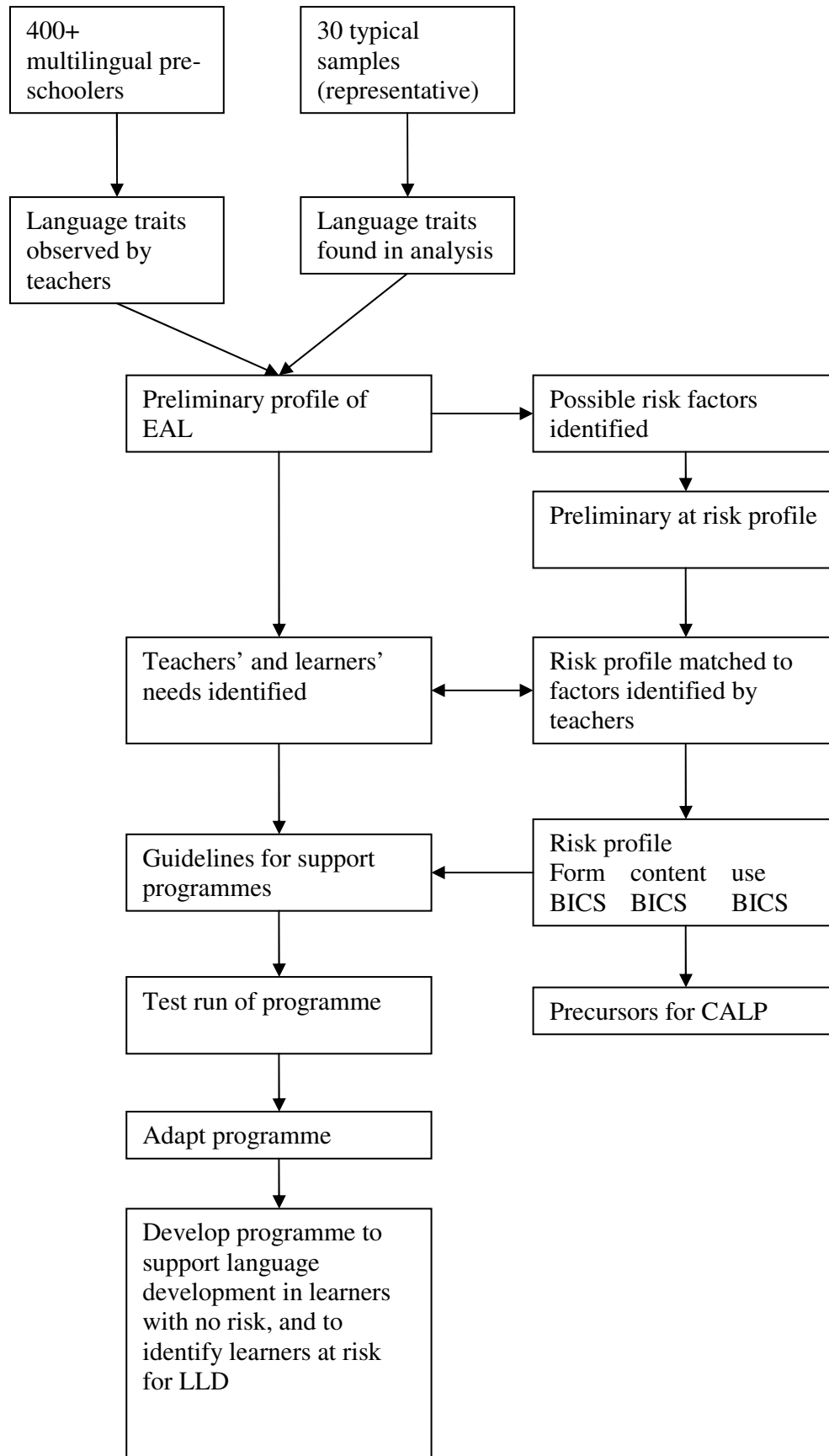
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┌──────────────────┐    ┌──────────────────┐
│ 400+             │    │ 30 typical       │
│ multilingual pre-│    │ samples          │
│ schoolers        │    │ (representative) │
└────────┬─────────┘    └────────┬─────────┘
         │                       │
         ▼                       ▼
┌──────────────────┐    ┌──────────────────┐
│ Language traits  │    │ Language traits  │
│ observed by      │    │ found in analysis│
│ teachers         │    │                  │
└────────┬─────────┘    └────────┬─────────┘
         └───────────┐  ┌────────┘
                     ▼  ▼
┌──────────────────┐    ┌──────────────────┐
│ Preliminary      │───▶│ Possible risk    │
│ profile of EAL   │    │ factors          │
│                  │    │ identified       │
└────────┬─────────┘    └────────┬─────────┘
         │                       ▼
         │              ┌──────────────────┐
         │              │ Preliminary at   │
         │              │ risk profile     │
         │              └────────┬─────────┘
         ▼                       ▼
┌──────────────────┐    ┌──────────────────┐
│ Teachers' and    │◀──▶│ Risk profile     │
│ learners' needs  │    │ matched to       │
│ identified       │    │ factors identified│
│                  │    │ by teachers      │
└────────┬─────────┘    └────────┬─────────┘
         │                       ▼
         ▼              ┌──────────────────┐
┌──────────────────┐    │ Risk profile     │
│ Guidelines for   │◀───│ Form content use │
│ support          │    │ BICS BICS  BICS  │
│ programmes       │    └────────┬─────────┘
└────────┬─────────┘             ▼
         ▼              ┌──────────────────┐
┌──────────────────┐    │ Precursors for   │
│ Test run of      │    │ CALP             │
│ programme        │    └──────────────────┘
└────────┬─────────┘
         ▼
┌──────────────────┐
│ Adapt programme  │
└────────┬─────────┘
         ▼
┌──────────────────┐
│ Develop programme│
│ to support       │
│ language         │
│ development in   │
│ learners with no │
│ risk, and to     │
│ identify learners│
│ at risk for LLD  │
└──────────────────┘
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Figure 1. Placing "Profiling language learning disorders in young urban EAL learners" in the context of the Kommunika project (du Plessis & Naudé, 2001)

APPENDIX B

LETTERS OF INFORMED CONSENT TO TEACHERS AND PARENTS
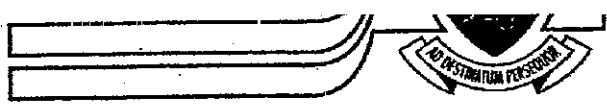
University of Pretoria

Department of Communication Pathology
Speech, Voice and Hearing Clinic

Tel   : +27 12 420 2357
Fax   : +27 12 420 3517
Email : enaude@postino.up.ac.za

Dear Parents

At the Department of Communication Pathology at the University of Pretoria we are currently doing research on the development of English as a second language by preschool learners.

The information obtained in this research will be analysed for two doctoral studies. The first study will set guidelines for a equipment package to enable preschool teachers to develop English second language in multilingual preschool learners. The second study aims to develop norms for language development in second language learners in order to identify potential problems early. The results of these two studies will be published and presented at seminars.

We would like to ask your permission to let your child take part in this research.

If you agree, your child's English will be evaluated at the preschool by a speech-language therapist. There will be no cost involved. The results will be treated confidentially and your child's name will not appear in any publication.

This research is done with the approval of the schools' principal.

Please complete the attached letter of permission and return to the school as soon as possible.

If you have any questions about the research you are welcome to contact the researchers at the address listed below.

Your cooperation is greatly appreciated.

Sandra du Plessis and Elsie Naudé
Department of Communication Pathology
University of Pretoria
PRETORIA
0002
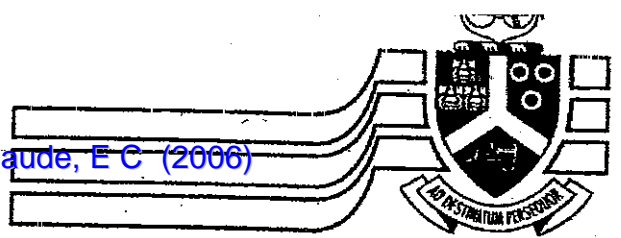
University of Pretoria

**Department of Communication Pathology
Speech, Voice and Hearing Clinic**
Tel   : +27 12 420 2357
Fax   : +27 12 420 3517
Email : enaude@postino.up.ac.za

May 2000

Dear Teacher

There has been much discussion lately about the multilingual learner in the regular classes. Teachers seem to struggle to meet the needs of multilingual learners. The preschool teachers, especially, have a gruelling task of preparing the multilingual preschooler for formal schooling in English.

Kommunika, preprimary centre for the development of communication skills in young children is currently researching this matter. As part of the research an equipment package will be developed which would enable preschool teachers in a multilingual setting to encourage and support the development of both home language and English second language.

The first step in this research is to identify the needs experienced by the preschool teachers. Your help in completing the attached questionnaire is of vital importance for the success of this research. We would appreciate your cooperation.

In order to permit you to answer as honestly as possible, your name need not appear anywhere on the questionnaire, and confidentiality is ensured. All that is required is your honest opinion and observations.

Your cooperation is greatly appreciated.

SANDRA DU PLESSIS
RESEARCH ASSISTANT

ELSIE NAUDé
HEAD: KOMMUNIKA

LETTER OF PERMISSION

Parent's name: _____

Child's name: _____

Child's teacher: _____

I give permission for my child's language to be evaluated by Sandra du Plessis, research assistant of the University of Pretoria.
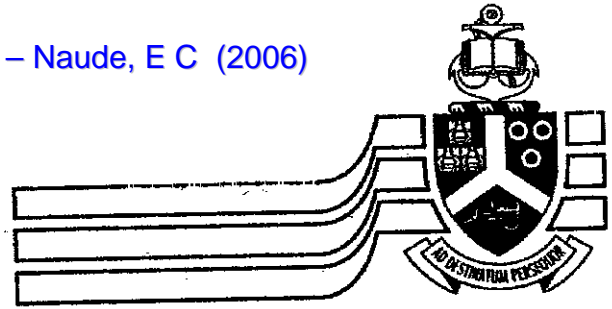
Signed: _____

Date: 2002 - 09 - 26

I wish to receive a copy of the evaluation results for my child:

Yes ☑

No ☐

APPENDIX C

PERMISSION FROM THE RESEARCH PROPOSAL AND ETHICS COMMITTEE

University of Pretoria

Committee for Research and Ethics
Faculty of Humanities

Dear Mrs. Naude

Project: Profiling language learning disorders in young urban English Additional Language learners
Researcher: Mrs. E.C. Naude
Supervisor: Prof. B. Louw
Department: Communication Pathology
Reference number:67151419

Thank you for the application you submitted to the Committee for Research and Ethics, Faculty of Humanities.

I have pleasure in informing you that the Committee for Research and Ethics formally approved the above study on 21-02-2003.
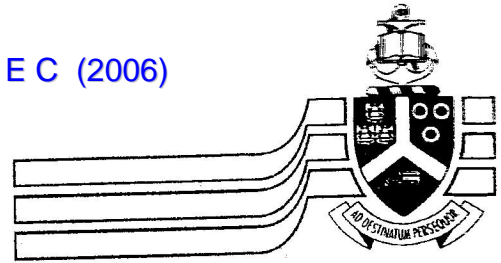
We wish you success with the project.

Sincerely,

Prof. Brenda Louw
Chair: Committee for Research and Ethics
Faculty of Humanities
UNIVERSITY OF PRETORIA

Studenteno: 67151419
Ons verw: Me P Woest
Tel: 012420 2736
Faks: 012420 2698
E-pos: petru.woest@up.ac.za

Oktober 2005

Me EC Naudé
Dept Kommunikasiepatologie
Universiteit van Pretoria
PRETORIA
0002

Geagte me Naudé

Universiteit van Pretoria

Pretoria 0002 Republiek van Suid-Afrika Tel 012-420-4111
Faks 012-420-2698 http://www.up.ac.za

Fakulteit Geesteswetenskappe

TITEL REGISTRASIE: STUDIERIGTING – DPHIL: KOMMUNIKASIEPATOLOGIE

Dit is vir my 'n genoeë om u mee te deel dat die volgende goedgekeur is:

ONDERWERP: **Profiling language in young urban English Additional Language learners**

PROMOTOR: **Prof B Louw**

MEDE-PROMOTOR: **Prof A Weideman**

VAKKEUSE VIR DIE DOKTORALE EKSAMEN:
Hoofvak: **KMP 990**
Byvakke:

U AANDAG WORD IN BESONDER GEVESTIG OP DIE BESONDERHEDE MET BETREKKING TOT U DOKTORALE PROEFSKRIF EN SAMEVATTING SOOS UITEENGESIT OP DIE KEERSY VAN HIERDIE BRIEF.

1. **REGISTRASIE:**
   (i)   U moet vir minstens een akademiese jaar registreer vir die graad voordat u toegelaat kan word om u proefskrif in te dien.
   (ii)   U registrasie moet jaarliks voor April van elke akademiese jaar hernu word totdat u aan al die vereistes vir die magistergraad voldoen het. Geen herregistrasie sal na 31 Maart aanvaar word nie. U sal slegs geregtig wees op die leiding van u leier indien u jaarliks bewys van registrasie aan hom voorlê.

2. **KENNISGEWING VOOR INDIENING:**
   Dit is 'n vereiste dat u my ten minste drie maande voor die tyd in kennis stel van u voorneme om 'n proefskrif in te dien.

3. **GOEDKEURING VIR INDIENING:**
   Vir eksamendoeleindes moet u voldoende eksemplare vir elke eksaminator indien, tesame met 'n skriftelike verklaring van u leier dat hy/sy die indiening van die proefskrif goedkeur sowel as 'n verklaring deur u, wat voor 'n Kommissaris van Ede geteken word, wat by die Fakulteitsadministrasie ingehandig word.

4. **DATUM VAN EKSAMEN:**
   U word vriendelik versoek om my in kennis te stel van die datum van u doktorale eksamen indien dit eers na indiening van die proefskrif afgeneem word.

Die uwe

nms **DEKAAN: FAKULTEIT GEESTESWETENSKAPPE**

APPENDIX D

**METHOD TO DETERMINE INTER- AND INTRA-RESEARCHER
AGREEMENT**

Computing agreement between analysers

Total number disagreements: 35

Total number points of analysis: 1832

Total number agreements: 1797 = **98.1%**

Points of analysis: Structures at clause level + structures at phrase level + structures at word level

Examples:

Example number	Level	*Utterance and analysis*	*No. of points of analysis*
1		That people sitting in the chairs	
	Clause	S V A	3
	Phrase	Det N Prep Det N	2
	Word	pl - ing pl	3
2		We play with the swings and the sand	
	Clause	S V Oi	3
	Phrase	Pron Prep Det N c Det N	4
	Word	pl	1
3		The dog has seen the present and then said "grr"	
	Clause	S V O c V O	6
	Phrase	Det N Aux Det N	3
	Word	3s -en past t	3

Points of analysis

1

Juniors	PoA	Middle	PoA	Seniors	PoA
1	60	13	60	21 (18 utterances)	166
2	21	14	134	22 (15 utterances)	66
3	10	16	69	23 (11 utterances)	111
4	183	17	141	30 (8 utterances)	
5	60	20	54		
6	132				
7	81				
8	54				
9	127				
10	222				
Total PoA	950		457	(52 utterances)	425
Total PoA for all groups 1832					

Reasons more PoA included for younger groups:

1. first section to be analysed
2. often less typical

Disagreements for senior group: 12 out of 425 = 2.8%   **Agreement 97.2%**

Disagreements for middle group: 8 out of 457 = 1.8%   **Agreement 98.2%**

Disagreements for junior group: 15 out of 950 = 1.6%   **Agreement 98.4%**

Reason for more disagreements in senior group: more complex utterances

Intra-analyser accuracy:

Analyses were repeated and revised at intervals of 6 months (3 revisions).

APPENDIX E

GLOSSARY OF TERMS

APPENDIX F

GLOSSARY

Adjective: an adjective is a syntactic unit used to modify nouns. The following are included by various authors under this term: possessive form of nouns (mom's), ordinals (first), descriptors (shopping centre) and true adjectives (blue, old, pretty). Other authors refer to ordinals and descriptors as modifiers. Adjectives can be recognised because they may add the /-er/ and /-est/ morphemes to indicate the degree of a quality.

Adverbial: an adverbial is a syntactic unit used to modify a verb.   It may consist of a word (adverb), a phrase, for example a preposition phrase (he jumped over the fence), or a clause (he ran until he dropped).   An adverb is defined by some authors as a syntactic unit used to modify a word or phrase other than a noun or pronoun, such as a verb (ran quickly), an adjective (extremely old man), another adverb (very quickly), or a whole clause (obviously you do not understand). Adverbs often, but not always, end in /-ly/. Adverbs and adverbials may indicate the time, place, manner, or degree.

Clause: a group of word containing a subject and the accompanying verb; used as a sentence (independent clause) or attached to an independent clause (dependent clause). The verb is central to the clause.

Competence: the (mentally represented) linguistic knowledge that underlies speakers' performance in a language.

Concept: concepts are related to word meanings. The meaning of a word is a concept. A concept is a theoretical entity that enables the person who possesses the concept to perform certain acts, for example to judge whether something is an X or not. The concept provides a rule that specifies/defines the features of an entity. Concepts are expressed in relation to other concepts. Concepts that share a number of features are related to each other.

Context: context refers to the environment in which a sound/word/sentence is uttered. The context can be linguistic, experiential, or socio-emotional.

Conversation: conversations take place when two or more people talk together (not simultaneously) and are coherent. Coherence refers to the overall meaning of a text.

Deixis: Deixis is the process of using the speaker's perspective as a reference. Deictic terms include words such as this, that, here, there, me, you. All of these words have different referents for the speaker and for the listener; Deixis is when the listener adopts the speaker's referent.

Determiners: determiners function as premodifiers to nouns, together with initiators and adjectivals. The most common determiners are *the* and *a/an.*

Discourse: a simple definition of discourse is "continuous speech". The study of units larger than the individual sentence (for example, paragraphs, conversations, texts) is discourse analysis.

Elicit: in the context of language sampling, eliciting refers to the use of evocative techniques designed to facilitate or draw out the production of specific language behaviour.

Indirect object: a sentence element filled by a noun or noun substitute for whom the action is performed, as in "She bought the flowers for him". Some verbs govern two objects, a direct object as well as an indirect object. Indirect objects may only be noun phrases (often with a preposition) or pronouns. Example:

> I gave the book to the girl
> direct object indirect object
>   or
> I gave the girl/her the book.
> Indirect object direct object

Interlanguage: the mental grammar constructed, and the language produced, by a nonnative speaker of a language; a combination of L1 and L2 rules, plus ad hoc rules from either or both languages. Transitional in nature.

Language content: according to the tripartite model of language (for example as expounded by Bloom & Lahey, 1978), language content is the component of language that has to do with meaning. This component is also called the semantic component of language.

Language form: according to the tripartite model of language (for example as expounded by Bloom & Lahey, 1978), language form is the component of language that has to do with syntactic, morphologic and phonetic structure. This component is sometimes referred to as the grammatic or structural component of language.

Language profile: A language profile is a description of language behaviour within a specific time frame and circumstances (adapted from Crystal, 1979).

Language sample: a language sample is a record of a person's expressive language that provides a representative example of language in actual use.

Language use: according to the tripartite model of language (for example as expounded by Bloom & Lahey, 1978), language use is the component of language that has to do with language within a communication context. It includes

communicative intentions or functions, the rules of conversations and of narratives, and the way in which speakers adapt their communication to various people and situations (ASHA 1990). This component is sometimes referred to as the pragmatic component of language.

MLU: Mean Length of Utterance is the average number of morphemes per utterance for a specific speaker at a specified time.

Morphology: the branch of linguistics that studies the structure of words. A morpheme is the smallest linguistic unit with meaning. They are made up of phonemes. Note that the individual sounds have no meaning, while the morpheme does. Some morphemes consist of a single phoneme, such as the plural –s, while others consist of a word (dog). A morpheme is indivisible without violating the meaning or producing meaningless units.

Nouns: a noun is a syntactic unit noting a person (Juan), place (Buenos Aires), thing (taxi), quality (courage), or activity (departure) that can usually be made possessive (woman's) and plural (women). Nouns can serve as the subject, object, or indirect object of a sentence. The noun is the only element required in a noun phrase.

Object: a sentence element filled by a noun or noun substitute upon which the action is performed, as in "She threw the ball", "She bought the flowers".

Performance: speakers' actual use of language in concrete situations, affected by underlying linguistic competence as well as by nonlinguistic factors.

Phonology: the field of linguistics studying how the sound systems of languages are organised. Phonemes are the smallest linguistic units of sound, each with distinctive features, that can signal a difference in meaning when modified (changed). A phoneme can also be described as a mental image of a sound or the idea of a sound.

Phrase: a syntactic unit that is not a full clause; a group of words that is used as a noun or verb substitute or a noun or verb modifier.

Preposition: a syntactic unit noting the relation- usually in space or time – of a noun or its equivalent to some other word in the sentence. Common prepositions include *after, at, before, between, by, for, from, in, of, on, over, to, under, with.*

Pronouns: a syntactic unit that can take the place of a noun. Pronouns may fulfil syntactic functions such as subject (*I, you, he, she, it, we, they*), object (*me, you, him, her, it, us, them*), possessive (*my, your, his, her, its, our, their*) and reflexive (*myself, yourself, himself, herself, itself, ourselves, yourselves, themselves*). In addition, pronouns may be classified as interrogative (*who?*), relative (*who*), and indefinite (*any, anyone, everyone etc.*).

Psycholinguistics: study of the psychological aspects of language, especially as they apply to the psychological processes involved in learning, processing, and using language.

Semantics: the field of linguistics studying the meaning in language. Semantics is concerned with rules governing the meaning or content of words or longer grammatical units.

Sentence: the largest unit dealt with by syntax; a linguistic unit consisting of a verb/verb phrase, together with a subject except for command sentences, with optional elements. A sentence may be classified as simple (independent clause alone), compound (two or more independent clauses joined together), complex (an independent clause plus one or more dependent clauses), or compound-complex (two or more independent clauses plus one or more dependent clauses).

Subject: a sentence element filled by a noun or noun substitute by which the action is performed, as in "She threw the ball", or which is the topic of the verb/verb phrase, as in "Being an actor is not an easy job".

Syntax: the way words are put together to form constructions, such as phrases and sentences. It is based on the idea of grammaticality, which refers to organisational rules specifying word order, sentence organisation, and word relationships in a specific language or group of languages.

Transcription: in the context of language analysis transcription is writing down a language sample from an auditory recording. Special notations (including phonetic symbols) may be used as and when required.

Type-token ratio: the ratio of the number of different words to the total number of words. It is used in research rather than for clinical purposes. Various ways of computing this ratio have been suggested and these should be considered carefully for each individual research purpose.

Verbs: a verb is a word that is the central element of a verb phrase, and that denotes actions, states, or processes. Verbs are the principal parts of a sentence, together with nouns.

Vocabulary: the words included in the language use of a person or group of persons. Studies of early vocabulary growth suggest that new words are added slowly at first, with the rate of vocabulary growth increasing greatly as the vocabulary becomes larger. Words not only enter a person's vocabulary but also leave it. Distinguish between a persons vocabulary and the lexicon of a language - its inventory of morphemes, together with information about how these morphemes can be combined to form more complex lexical items (words).

Word: a unit of language that acts as the label for a referent or a relationship.

Sources:

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Owens, R.E. 1999. *Language disorders – a functional approach to assessment and intervention (3rd edition).* Boston: Allyn & Bacon.

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Sorace, A., S. Gass & L. Selinker. 1994. *Second language learning data analysis*. Hillsdale, NJ: Lawrence Ehrlbaum Associates.

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APPENDIX F

TRANSCRIPTIONS OF CONVERSATIONS (ON CD-ROM)

APPENDIX G

RAW DATA (ON CD ROM)