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 preschoolers. In order to draw legitimate conclusions relating to language ability or impairment, speech-language therapists and teachers working in collaboration in preschool 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 preschool 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).

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

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		Language aspects elicited	l
activities/material	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
Conversation: story map for personal narrative about <i>Going to the doctor</i> (Rollins <i>et al.</i> , 2000)	Syntactic complexity Syntactic structures Morphology MLU	TNW TDW TTR TNV TDV TNN	Turns taken 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) Pictures and sentence completion (Subtest 9 – Grammatic Closure, from the Illinois Test of Psycholinguistic Abilities [ITPA] [revised edition.] – Kirk, McCarthy and Kirk, 1968).) Story based on picture cards, as	Morphology Syntactic complexity		Communicative functions, intents and devices
well as additional response utterances to Items 11-14, from the KLST-2 (Gauthier & Madison, 1998).	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

						Languag	e form				
		Clause	level		Phrase leve	l		Word	level		
	ednoup	Syntactic complexity	Clause structures	Noun phrase	Pronoun phrase	Verb phrase	Main verb	Copula and auxiliary "be"	Other auxiliary verbs	Noun morphology	Subject-verb agreement
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 <u>is</u> 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
4-4	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 <u>I</u> don't know	Copula is, are, am That <u>'s</u> 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

	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 <u>I</u> 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 1 st person singular I'm going home
5 – 5-11	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 <i>Two cakes</i>	Subject-verb agreement for 3 rd person singular Other one takes the Simbas

- 6-1]	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	"T" as subject I was sick "Me" as object The stove blood me here "My" (possessive) I did give children my cake "They" as subject They go away	Is/am/are/was + verb + -ing They are praying	Verb stem (grammatically acceptable) We play school *Verb stem (grammatically unacceptable) And then he check my ears Progressive aspect (grammatically acceptable) They are praying	Copula be used appropriately There is a party It was a nice birthday I'm Superman Auxiliary be used appropriately One's sitting, one's playing and the other one is also playing	No typical behaviour could be identified	Regular plural used appropriately I opened my presents 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 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
--------	---	---	--------------------------------------	--	--	--	---	---	---	--

	Compound	"No"	PrepN	"He", "she",	Copula is, are,	Irregular past	Use of	Irregular plural	Subject-verb
	sentences		at school	"it" as subject	am, was	(grammatically	auxiliary do	used appropriately	agreement
	joined by	SVC		<u>She</u> invited	Maybe it <u>'s</u> a dog	acceptable)	in negative	Brush their <u>teeth</u>	for 1 st person
	"and"	It's sore		them	present	They <u>gave</u> me	form (don't,		plural
	They can open					medicine	didn't)		When we
	the presents	SVOA		"We" as	Verb + particle		I <u>don't cut</u>		watch TV
	and they can	You put it at		subject	They <u>pick</u> me <u>up</u>	*Extended use of	my cat's		
70%	play.	the back of		<u>We</u> just keep		progressive	nails.		
		the people		the cat in the		aspect	I <u>didn't see</u>		
- 0	Complex			house		Nomsa <u>is hitting</u>	it, and she		
Noteworthy (50 –	sentences					us	blood me.		
hy	with an								
ort	embedded					Infinitive			
ew	object clause					The dog want <u>to</u>			
Vot	I don't know					open the present			
	what they are								
	doing here								
		1	1	1	1	thth		1	1

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	Calculated in morphemes	Calculated in 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		
Calculated in words	Calculated in words	Calculated in words		
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		

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 co				
×		Total word co		indicated for wo	rd counts are very verbs	wide and should be i		oution ouns	Cognitive state verbs
Age Groups	TNW	TDW	TTR	TNV	TDV	V % TNW	TNN	N % TNW	
4 - 4-11	10 th – 90 th percentile 9 - 154 Mean 70.5	10 th - 90 th percentile 7 - 49 Mean 33.0	10 th – 90 th percentile .3078 Mean 0.47	10 th – 90 th percentile 3-21	10 th – 90 th percentile 2 – 13	Mean TNV as percentage of mean TNW 15.9%	10 th – 90 th 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	10 th – 90 th percentile 51 - 142 Mean 96.3	10 th – 90 th percentile 33 – 63 Mean 49.4	10 th – 90 th percentile .4565 Mean 0.51	10 th – 90 th percentile 11 – 21	10 th – 90 th percentile 8 – 13	Mean TNV as percentage of mean TNW 18.5%	10 th – 90 th 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	10 th – 90 th percentile 166 - 439 Mean 278.5	10 th – 90 th percentile 53 - 99 Mean 72.7	10 th – 90 th percentile .2134 Mean 0.26	10 th – 90 th percentile 27 - 61	10 th – 90 th percentile 9 - 38	Mean TNV as percentage of mean TNW 18%	10 th – 90 th 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

Lar	iguage	use									
sdno		Mazes:	Personal narratives	Communicative i	intents/functions		Conversation skills				
Age groups			(see note below)	Intents	Functions	Conversational devices	Appropriateness of responses	Connectives (as discourse devices)	Responses/ spontaneous utterances	Turns taken	
	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 (10 th to 90 th percentile) 57% – 100%	
4 – 4-11	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%)				

	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 10 th to 90 th 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 10 th to 90 th percentile 85.7% – 100%

False starts	Chronological	Requesting an	Changing a	No response	
(occurring	narrative	object	topic	0% - 14.6%	
on average	produced by	Requesting an	Asking	(mean 5.9%)	
in 4.2% of	50% of	action	conversational		
utterances)	participants.	Requesting	questions		
Filled	Additional note:	information			
pauses	More than 60%	Commenting on			
(occurring	of any personal	an object			
on average	narrative falls in				
in 3.7% of	the action				
utterances)	category				

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	C complement	Aux auxiliary verb	V % TNW Percentage of total number of words consisting of verbs
above mean to two standard deviations	A adverbial	Cop copula	TNN Total number of nouns
below mean	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	

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

					Langua	age form (sent	ences and words)			
		Clause	e level		Phrase level		Wo	ord level		
	Age groups	Syntactic complexity (simple, compound and complex sentences)	syntactic structures (sentences omplexity (sentences ompound subject, entences) entences) Syntactic structures (sentences omplex it of subject, entences) Noun phrase (words used together with nouns) Pronoun phrase (forms of pronouns used) Pronoun phrase (words used together with verbs) Noun phrase (words used together with verbs)		"Is" (all forms) as main verb and auxiliary verb	Noun morphology (plurals, possessives)	Subject- verb agreement			
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>I gave the babies food</i>	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 <u>I</u> 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 1 st person singular I'm going home

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 <u>I</u> was sick Pronoun "Me" used as object <u>The dog bit</u> <u>me</u> Use of "My" (possessive) I did give children <u>my</u> cake Pronoun "They" used as subject <u>They</u> 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/ used approas main voe There is a lt was a nobirthday I'm Super Auxiliary am, was, verb used appropriate One's sittle playing an other one playing	opriately erb party ice man be (is, are, were) + tely ing, one's nd the	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 2.1 and 4.1 Making up a story from 3 pictures: between 2.2 and 6.1 Making up a story from 3 pictures: between 4.8 and 7.8					en 2.9 and						

	Note: The	ese word counts) minute conve	rsation consistii	er and types of word ng of discussion of a should be interprete	picture and telli		experience.
	7	Total word count			Verbs	<u> </u>		Nouns	Cognitive state
Groups	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	verbs (verbs referring to mental activities like think, remember, promise)
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

	Language use in conversation and story telling (narratives)								
Age groups		Mazes: False starts, Reformulations,	Using language for specific purposes		Conversation skills				
Age		Repetitions, Filled pauses	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

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 <u>and</u> 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

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 preschoolers 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

(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

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 for	m
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 (10 th to 90 th 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 (<i>a</i> , <i>the</i> , 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 1 st person singular	Does not use the verb "am" with the pronoun "I" (<u>I am</u> in teacher Gina's class)	
Mean Length of Utterance (10 th to 90 th 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	Does not use "yes" to answer questions Does not use sentences consisting of subject, verb and adverbial (SVA)	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
	SVO	(they sit on the chairs, I am going tomorrow, he can jump like that) Does not use sentences consisting of subject, verb, and object (SVO) (we drink tea)	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)	

"T" as subject "Me" as object "My" (possessive) "They" as subject	Does not use the pronouns <i>I</i> , <i>me</i> , <i>my</i>	
	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.		

Subject-verb agreement for: 1 st person singular 3 rd person singular 3 rd person plural	Note: appropriate use of verb "to be" already mentioned.	
*Subject-verb non-agreement for: 3 rd person singular	Note: the use of both agreement and non- agreement cannot be converted to a clinical marker	
Mean Length of Utterance (10 th to 90 th 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 10 th – 90 th 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 10 th – 90 th 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					

TTR 10 th – 90 th perce 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 10 th – 90 th perces	personal narrative) is less than 3 Total number of different verbs produced during 20 minutes of conversation (picture	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 pe mean TNW 15.9%	Less than 15.9% of the total number of word produced during conversation are verbs	S .

	TNN $10^{th} - 90^{th} \text{ percentile } 1 - 20$ N % TNW Mean TNN as percentage of mean TNW 16.5%	Does not produce nouns during 20 minutes of conversation (picture discussion + personal narrative) – may produce pronouns or "this/that one" 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 <i>not</i> be used as an indicator of language impairment in this population of multilingual EAL preschoolers, since they <i>typically</i> did not use cognitive state verbs in their conversations with the research fieldworker.
5-0 to 5-11	TNW 10 th – 90 th 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 10 th – 90 th 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 10 th – 90 th percentile .4565 Mean 0.51	Type-token ratio (TDW divided by TNW) is lower than 0.45, indicating a lack of lexical diversity (poor vocabulary)	
	TNV 10 th – 90 th percentile 11 – 21	Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 11	
	TDV 10 th – 90 th 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 10 th – 90 th 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 10 th – 90 th 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 10 th – 90 th 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 10 th – 90 th percentile .2134 Mean 0.26	Type-token ratio (TDW divided by TNW) is lower than 0.21, indicating a lack of lexical diversity (poor vocabulary)	
	TNV 10 th – 90 th percentile 27 – 61	Total number of verbs produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27	

	Language use	
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	
N % TNW Mean TNN a s percentage of mean TNW 18%	Less than 18% of the total number of words produced during conversation are nouns	
TNN 10 th – 90 th percentile 27 – 65	Total number of nouns produced during 20 minutes of conversation (picture discussion + personal narrative) is less than 27	
V % TNW Mean TNV as percentage of mean TNW 18%	Less than 18% of the total number of words produced during conversation are verbs	
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.	

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%	During 20 minutes of conversation (picture discussion + personal narrative), more than 80% of utterances consist of answers to the adult's questions	
Spontaneous utterance 0% - 20% Response to comment 0% - 5.3% No response 3.8% - 68.4%	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 <i>no response</i> to adult's questions or comments	
Percentage of available turns taken by 80% of participants (10 th to 90 th 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.

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 <i>no response</i> to adult's questions or comments	Variety of utterances produced When the formula <i>mean</i> – 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 10 th to 90 th 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	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 predict what is going to happen	
	Conversational skills:	Does not make choices	

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 <i>and</i> 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.

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 <i>no response</i> to adult's questions or comments	
Percentage of available turns taken 10 th to 90 th 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 <i>high frequency</i> 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 preschoolers

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 <u>is washing)</u>		
	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 $I(I \text{ went to the shop})$		
	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>I</i> , <i>me</i> , <i>my</i>		

	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 <i>no response</i> to adult's questions or comments
	6. Less than 57% of available turns are taken during conversation

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 <i>no response</i> 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 <i>no response</i> 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
	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	Acquiring additional vocabulary items more slowly than peers	
behaviours (Bishop	Using fewer questions than peers	
& Leonard,	Co-occurrence of later-developing and earlier-developing syntactic forms	
2000:116-125;	Having fewer options for tailoring utterances to listener needs than peers	
Owens, 1999:37-	Having difficulty understanding the rules for turn-taking in conversations	
38; Nelson,	Slower processing of language input than peers	
1998:104, 290)	Shorter attention span for language-related activities than peers.	
General	Poor ability to perceive sequenced acoustic events of short duration	
language-	Poor ability to use symbols	
related	Inadequate mental energy	
	Limitations of play	
behaviours	Indications of long-term memory storage problems.	
(Owens, 199:37-		
38; Nelson,		
1998:290).		

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.