A detailed inventory of linguistically and culturally sensitive speech- and language assessment material, available to speech- language therapists working in South Africa

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Title: A detailed inventory of linguistically and culturally sensitive, speech and language assessment material, available to speech-language therapist working in South Africa

Abstract: The importance of culturally and linguistically sensitive speech and language assessment is emphasized in the subject literature. This is particularly relevant to speech-language therapist working in the South African context. Over the past 25 years a number of research projects, conducted at academic departments involved, focused on the adaptation, translation and development of such assessment material. The problem is that although the materials were included in undergraduate and postgraduate research reports speech-language therapists are not always aware of the availability of the assessment material. The aim of this study was to develop a detailed inventory of culturally and linguistically sensitive material, available for use in speech and language assessment in South Africa. A literature study and electronic survey was conducted to collect data. Results shows that a total of 97studies were conducted in this regard and there are assessment material available in only seven of the eleven official languages of South Africa. Assessment material for Afrikaans and South African English attracted the most attention from researches but only 35 studies were conducted for black African languages. Detailed information of the studies and materials identified is presented in table format and quantitative data provided and discussed. Further research is recommended to develop, translate, and adapt as well as standardize more assessment material in the indigenous languages of South Africa languages to ensure culturally and linguistically service delivery.

Keywords: Linguistically and cultural sensitive, assessment material, South African context, speech-language therapy.

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Tite: A detailed inventory of linguistically and culturally sensitive, speech and language assessment material, available to speech-language therapist working in South Africa

Opsomming: Die belang van kultureel en linguisties sensitiwe spraak- en taal assessering word in die vakliteratuur beklemtoon. Dit is ook van besondere belang vir spraak-taal terapeute wat werksaam is in die Suid-Afrikaanse konteks. Verskeie studies is oor die afgelope 25 jare by akademiese departemente in dié verband uitgevoer, met die oog op die aanpassing, vertaling en ontwikkeling van sulke assesseringsmateriaal. Die probleem is dat hoewel hierdie materiaal in voor- en nagraadse navorsings verslae vervat is, praktiserende spraak-taalterapeute nie noodwendig daarvan bewus is nie. Die doel van hierdie studie was om 'n gedetailleerde inventaris te ontwikkel van kultureel- en linguistiese sensitewe materiaal vir spraak- en taalassessering in Suid-Afrika. 'n Literatuurstudie is uitgevoer om data in te samel. Resultate toon dat 'n totaal van 97 studies in die verband uitgevoer is en dat assesseringmaterial beskikbaar is vir sewe van die elf amptelike tale van Suid-Afrika. Assessiringmateriaal vir Afrikaans en Engels het die meeste aandag ontvang, maar slegs 35 studies het op swart Afrikatale gefokus. Gedetaillerde inligting van geïdentifiseerde studies en materiaal in tabelformaat opgesom en kwantitatiewe inligting word aangebied en bespreek. Verdere aanpassing, vertaling, ontwikkeling, asook standardisering van assesserings materiaal vir inheemse tale van Suid-Afrika word aanbeveel, ten einde kultureel- en linguisties sensitiwe dienslewering te verseker.

Sleutelwoorde: Linguisties- en kultureel-sensitiwe; assesseringsmateriaal; Suid-

Afrikaanse konteks; spraak-taalterapie

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INTRODUCTION

1.1 Problem statement and literature review

South Africa is a country with a diverse multilingual and multicultural population. There are eleven official languages, which are Afrikaans, English, Sepedi Sotho, Southern Sotho, SeTswana, ShiVenda, Ndebele, SeSwati, XiTsonga, Xhosa and Zulu (Webb & Kembo-Sure, 2000). Smaller ethnic groups also speak a variety of other languages, even though they are not considered official languages of South Africa (Ethnologue, 2002).

Language is closely related to culture and helps to define the inherent identity of an ethnic group. Language and culture are inevitably intertwined (Anderson, 1994; Kayser, 1996,). Although multilingualism and multiculturalism are not rare phenomena (Crystal, 1997), linguistic and cultural diversity is particularly evident in the South African population. It is reasonable to assume that this diversity will also be reflected in the client population that the Speech-Language Therapist (SLT) in South Africa serves.

The national patients' rights charter (2002) of the Health Professions Council of South Africa stipulates that nobody should be discriminated against on the grounds of gender, ethnicity, and language. All citizens are entitled to receive equal services. In accordance with this requirement, SLT's are obliged to deliver effective services to every client Taylor (1986), as well as Van Kleeck (1992) pointed out that to deliver effective services; these services need to be adapted so that they are culturally and linguistically sensitive. These services include the assessment, diagnoses and treatment of clients with communication problems. According to Peter-Johnson and Taylor (in Screen & Anderson, 1994) communication disorders should be explained, studied and treated from a culturally relevant orientation. If cultural orientation is not taken into account there could be a risk of "over-diagnosis" (identification of a disorder or problem where none exists) and "under-diagnosis" (communication disorder existing but not being

identified. Screen & Anderson, 1994). Iglesias (1985) also referred to the idea of a mismatch that occur, and that may lead to ineffective service delivery.

According to Goldstein (2000), to provide effective services the speech-language therapists should ideally be familiar with the language spoken by the client and with his/her cultural background. Anderson (1994) also mentioned that the SLT has to have sufficient information about sociolinguistics and language development to ensure that the assessment procedures are not biased. Cross-cultural competence is an important skill in professional and personal interactions, especially when working with a diverse population (Lynch & Hanson, 1998). Lynch & Hanson (1998:4) described cross-cultural knowledge as "the ability to think, feel and act in ways that acknowledge, respect, and build upon ethnic, socio-cultural and language diversity"

Although linguistic and cultural diversity is prominent in South Africa, it is not an exclusive or a new problem. SLT's worldwide are confronted with this challenge. During an ASHA convention four decades ago, a group of African American Speech-Language Therapists voiced their concern about the quality of the services provided to clients from minority groups in the USA (Wiggins in Screen & Anderson, 1994). As the spokesperson for this group, Orlando Taylor argued that the service delivery to clients with speech and hearing problems should be based on a linguistically and culturally valid framework. In 1986 Orlando Taylor (1986) proposed a conceptual framework for linguistically and culturally sensitive service delivery to clients with communication problems. Taylor (1986) pointed out that a client may act differently in different clinical setting as a result of his cultural and linguistic background and drew attention to the fact that this may have implications for assessment. Taylor (1986) argued that clients may feel more comfortable to be evaluated in the language that they feel competent with (Taylor, 1986) and their self confidence may in turn influence linguistic performance during assessment by the therapist. Assessing a client in a language with which he/she is less familiar, could therefore have consequences for validity and reliability of assessment results.

In South Africa there is limited number of SLT's, as reflected in the HPCSA –speech-language therapy division there is a total number of 1762 SLT's who are registered currently and with a population of more than 44 819 778 in number. In addition the SLT's locally are faced with delivering services to a particular diverse client population. It is a well-known fact that the majority of speech-language therapists in South Africa are either English or Afrikaans speakers, of whom the minority is conversant in any of the indigenous African languages. This current demographic imbalance in effect results in a serious 'mismatch'between SLT's and their client population, with regard to their cultural and linguistic backgrounds.

The practical reality is that SLT's in South Africa are forced to modify their treatment to suit their working conditions and expectations needs, culture and customs of different individuals (Tuomi, 1994; Goldstein, 2000) since a "one-size fits all approach" is not effective (Moxley, Mahendra, Vega-Barachowitz, 2004). However to ensure that best practice principles are maintained, such modifications or changes, in favour of a culturally and linguistically sensitive approach, should never compromise the scientific quality of the service that is delivered. Pakendorf (1998) suggested specific guidelines that would ensure a scientific approach towards the adaptation, translation or development of linguistically and culturally valid assessment material. Identifying cultural and linguistic variables, obtaining more information about them and addressing them in assessment and management practices, can enhance and ensure the quality of clinical service delivery to a diverse population (Moxley et al., 2004).

Culturally valid material for assessment and diagnosis is essential for determining appropriate intervention goals and to know how to handle the disorder. Assessment and treatment materials and procedures need to be developed according to the culture and language of the population group they served.

The challenge facing therapists in South Africa is complicated by the fact that assessment material is not available in all the indigenous or official languages. Some of the assessment material that is available and that is used in practice has not linguistically and culturally been validated. Goldstein (2000) pointed out that it is

essential to develop culturally and linguistically valid assessment material and treatment materials using normal norms.

Over the past 25 years valuable work in this regard has been done though, especially in research studies by undergraduate and postgraduate students at the Speech-Language and Audiology departments of various universities in South Africa. Although some of these studies and assessment materials have been published in the form of an article, most are only available as research reports. Consequently practising SLT's and other students are not necessarily aware of material that is available. The problem is therefore, that although valuable linguistically and culturally appropriate assessment material may be available in South Africa. SLT's may be unaware of the existence of the material, or may not know where to find it may not know whether the available material has been validated or tested in practice.

1.2 The research question

Considering the problem highlighted, there seems to be a need to identify material that has locally been adapted, translated or developed in a scientific manner, in order to aid SLT's in assessing the communication skills of the client population of South Africa. The research question underlying this study is therefore the following:

What linguistically and culturally sensitive assessment material is currently available to SLT's delivering services to clients with speech and language problems in South Africa, and where could it be accessed?

2. METHODOLOGY

In order to address the research question the following aim was set:

2.1 Main aim of the study

 To compile a detailed inventory of linguistically and culturally valid sensitive material, currently available to the SLT's for the evaluation and/or diagnosis of speech and language disorders in children and adults in South Africa.

The research will focus on material that was developed, adapted or translated in research studies completed at various university in departments in South Africa that offer training to SLT's.

2.1.1 Sub-aims

In order to reach the main aim the following sub-aims were set:

- -To identify linguistically and culturally sensitive assessment material currently available to SLT's working children and adults in South Africa.
- -To list the identified material and provide qualitative information in this regard that would be of value to SLT's such as target language; year of publication; title of study; author; available format; university where the material was done; target group; as well as the origin of the material.
- -To provide quantitative data regarding the identified assessment material available in the various official and indigenous languages of South Africa.

2.2 Research design

The research design explains the steps taken in order to find answers about a hypothesis or research question (Claire & Craig 2000:63). The main goal of this research is to identify and to describe material available to SLT's in different languages of South Africa to assess, evaluate, or monitor speech and language behaviour in

children and adults from diverse language and culture groups in South Africa. The nature of the research was therefore quantitative, non-experimental and descriptive (Salkind, 2006; Leedy & Ormrod 2005), since it aimed to describe the "characteristics of an existing phenomenon" (Salkind, 2006:11). For the purpose of this study survey research will be utilised (Salkind, 2006) with the aim to provide quantitative information about available assessment material as well as to provide additional information and an explanation of the nature and quality of each set of material.

The research entailed two phases. Data was primarily collected by means of literature survey of test material available. In order to provide guidelines for the literature survey, a checklist was used to aid the researcher in reviewing the research and providing structure to the survey (Leedy & Ormrod: 2005). An example of the checklist is included in Appendix II.

In addition to the literature survey a second phase of the research entailed an added electronic survey. This secondary survey involved staff at various departments of universities in South Africa offering training in SLT, who were requested to review the provisional data and add or rectify the information gathered. Details in this regard are provided in the discussion of the data collection procedure.

2.3 Information Sources and Participants

Phase 1-Literature survey:

In a literature survey such as this participants are not involved. Instead in the first phase the researcher focused on a variety of sources in collecting information regarding studies that focussed on assessment material. In this section the sources consulted for this survey are discussed.

Since scientific research at academic departments, aimed at the development, adaptation and translation of assessment material, is mainly done for graduation

purposes, this study focussed on material that resulted from these types of studies. Material that resulted from staff research was also considered.

Sources of information used in this study included:

- I. A departmental datafile (Department of Communication Pathology, University of Pretoria) of the research topics of undergraduate studies conducted in speech language therapy at the various university departments offering training in South Africa.
- II. Catalogues of university libraries in South Africa, that included the topics of undergraduate research reports and postgraduate research dissertations or theses.
- III. In addition to this, the indexes of locally published subject journals were consulted to identify and determine whether some of these studies that had been published South African journals related to communication pathology. This included the South African Journal of Communication Disorders; the South African Journal of Education; and the Journal of South African Linguistics and Applied Language Studies; as well as the departmental publication Clinica: Clinical application in Communication Pathology/ a series of monographs published by the Research Committee of the Department of Communication Pathology, at the University of Pretoria.

Phase 2-Electronic survey:

The second phase of the research involved participants. Lecturers and research supervisors in departments of communication pathology at various universities involved in training of speech-language therapists were identified as potential respondents to the electronic survey. A list of these departments is included in Appendix I.

2.4 Ethical considerations

According to the Chamber dictionary ethics refers to "rules and principles of behaviour" (Chamber, 1987:228). Ethical considerations in research refer to the rules and

principles that the researcher must adhere to in order to conduct ethical research. Ethical principles that refer to the rights of participants such as (confidentiality, anonymity & privacy and voluntary participation, Bless & Higson-Smith, 2004) were therefore going to be taken into consideration.

The following are ethical considerations were considered during the research:

Phase 1-Literature survey

- The researcher has to be competent and responsible for the research until it is completed.
- Plagiarism- other people's work will be acknowledged and plagiarism will be avoided. Sources consulted will be acknowledged (Mouton, 2001; De Vos; Leedy & Ormrod, 2004).
- The researcher will be honest with professional colleagues(Leedy & Ormrod, 2005) and will make the results of the research known to other professionals so that they will be able to use it (Mouton, 2001).

Phase 2-Electronic survey

In this phase of the research, participants were involved. It was therefore important to ensure the participants' right to privacy and to obtain informed consent. Letters of information requesting participation consent were sent to heads of departments as well as to members of staff. (See Appendix A)

Ethical clearance for the research project was also gained from the Research Committee of the Department of Communication Pathology on behalf of the Ethics and Research Proposal Committee of the Faculty of Humanities, University of Pretoria. (See Appendix A)

2.5 Procedure

In this section the procedure for data collection and data analysis is explained

2.5.1 Procedure for data collection

As mentioned previously, data collection entailed two phases namely a literature survey and an electronic survey.

Phase one: Literature survey

The researcher focussed on research studies that had been previously done for graduate purpose in order to identify adapted, translated and newly developed assessment material available in the official indigenous South African languages.

A datafile of research topics of undergraduate studies conducted at the different departments in South Africa offering training to SLT's, was consulted. Studies conducted at the universities in South Africa (Appendix A) from 1980 to 2005, that involved the development, adaptation or translation of assessment material in the official and other indigenous languages of South Africa, were identified and listed.

The second step was to consult the library catalogues of these universities to identify postgraduate studies conducted. Studies identified were added to the initial list.

In a third step the indexes of locally published subject journals were reviewed to identify those studies that lead to publications. These indexes were also used to identify studies by staff at these departments

Phase 2- Electronic survey

The second phase of the data collection process entailed an electronic survey. The purpose of this survey was to verify and expand the provisional inventory by requesting academic staff to review the provisional information and add to, or correct the information. A letter of request in this regard was sent to heads of department in South Africa. The provisional inventory was attached to the letter and heads of department were asked to lend their support by forwarding the request and provisional list to all the academic members of the staff. Letters of information-requesting participants' informed consent accompanied the provisional inventory. ((See Appendix A). The inventory was staved in MSWord-file and sent to prospective participants as an attachment to an electronic mail message. Participants were requested to respond in any preferred format i.e. edited Word documents, email comments or faxed hard copies with comments.

In order to compile the final inventory information provided by the participants was added to the list with all the information of each assessment material found. The material will be sorted according to language, year, communication skill; title of material; author; purpose of study; university; adapted/ translated/ developed and targeted population group

2.5.2 Procedure for data processing and analysis

Different procedures were involved in the processing and analysis of the qualitative and quantitative data.

The procedure for data analysis involved the preparation of quantitative data regarding the number of materials/ tests/ assessment protocols that has been identified. It also involved the finalisation of the qualitative information regarding the identified material as presented in the inventory.

2.5.2.1 Processing and analysis of qualitative information

Provisional qualitative data was summarised in table format. In order to summarise provisional qualitative information regarding the studies identified, a checklist was used (see Appendix B). The checklist also aided in the structuring and categorisation of the provisional inventory. In the inventory the assessment material was first of all categorised according to language in alphabet order and according to the year in which the study was conducted

Pilot study: After compiling the table it was reviewed by two academic member of staff at the University of Pretoria to check if the structure and manner which was used to for the presentation of accessible and reader friendly. The first academic of staff suggested that the table could be categorised by sorting the table according to the year of publication and that the year of publication should be on the first column of the table where the test are primarily sorted and presented according to languages in alphabetic order.

The second member of staff edited the topics and added more information and made some corrections on the table. She also acknowledged the manner of sorting the table according to language and year of publication.

2.5.2.2 Processing and analysis of quantitative

Quantitative statistical information about the material that had been identified was also compiled and included the following:

- Number of studies in total.
- Number of studies per language and other.
- Number of undergraduate studies/ masters/ doctoral/ staff or post doctoral.
- Number of translated/ adapted/ newly developed.
- Number of studies per broader skill category (speech/ language)
- Number of studies per five-year cycle.
- Number of studies per target population (children/ adults)

The quantitative data acquired in this way was summarised in table format.

3. DESCRIPTIONS AND DISCUSSION OF RESULTS

In this section of the report the results are discussed with reference to the sub aims. The assessment material was identified, and compiled as a detailed inventory of studies in this regard. The inventory is considered the qualitative results of the study and is presented in the subsection 3.1. In the second subsection (3.2), quantitative or statistical information concerning the studies and material identified, is described and discussed.

3.1 Qualitative data regarding assessment material available

Table 1 contains a detailed inventory of undergraduate, postgraduate and staff
There are research studies, which focussed on the development, translation and/or
adaptation of linguistically and culturally sensitive assessment material. The qualitative
information that it provides is primarily categorised according to language. Within each
language category, information of the studies is presented according to the year of
completion. Further details are included under self-explanatory headings.

Table 1: A DETAILED INVENTORY OF LINGUISTICALLY AND CULTURALLY SENSITIVE MATERIAL FOR SPEECH AND LANGUAGE ASSESSMENT IN SOUTH AFRICA

.,			1. Afrikaans		oong maa gaala aa gaala da ka gaabaha aa maa ay aa ahaa			
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
2005	Right Hemisphere Syndrome	Language	'n Afrikaanse protokol vir die indentifisering van kommunikasie probleme weens Regter Hemisfeer Sindroom.	Карр, N	Undergraduate report	University of Pretoria	Developed	Adults
2005	Aphasia	Language	'n Afrikaanse weergawe van die Boston Diagnostic Aphasia Examination.	Kruger, A J	Undergraduate report	University of Pretoria	Adapted	Adults
2005	Central Auditory processing	Speech & Language	Die toepaslikheid van 'n Afrikaanse vertallng van die SCAN-C: Test for Auditory Processing Disorders in Children-Revised vir voorskoolse kinders	Visser, C M	Masters dissertation	University of Pretoria	Adaptation	Children
2005	Hearing	Language	Jong kinders se gebruik van kommunikasie funksies voor en na kogleerê inplanting	Kaltenbrùnn, I; Louw B & Hugo, R	Article (SAJCD)	University of Pretoria	Normative data	Children
2004	Hearing	Language &speech	Intensionele kommunikasie-ontwikkeling van jong kinders met kogleere inplantings.	Kaltenbrünn,I J	Masters dissertation	University of Pretoria	Normative data	Children
2004	Language learning	Language	South Tyneside Assessment of Syntactic structures (STASS- Die vertaling van STASS in Afrikaans).	Meiring, N	Undergraduate report	University of Stellenbosch	Translated	Children
2004	Language development- Parents	Language	Toepassing van die Afrikaanse vertaling van "The Self-efficacy for Parenting Tasks Index Scale (A-SEPTI)" op ouers van tipies ontwikkelende kleuters (36-60 maande).	Reynolds, D	Undergraduate report	University of Pretoria	Adaptation	Parents of children
2004	Phonetic transcription	Speech	Riglyne vir die fonetiese notering van Standaard-Afrikaans.	Tesner, H	Article- Klinika	University of Pretoria	Normative data	Adults & children
2004	Language development	Language	Die toepaslikheid van <i>die Muller Scales of Early Learning vir Afrikaans</i> sprekende peuters tussen die ouderdom 51 en 66 maande.	Van Rooyen , I	Undergraduate report	University of Pretoria	Adaptation	Children
2004	Language development	Language	Die toepaslikheid van die <i>Muller Scales of Early Learning vir Afrikaans</i> sprekende peuters tussen die ouderdom 36 en 49 maande.	Visser, N	Undergraduate report	University of Pretoria	Adaptation	Children
2004	Language learning	Language & Speech	'n Voorlopige weergawe van die <i>Phonological Awareness</i> Literacy Screening Kindergarten (PALSK)	Weinmann, A C K	Masters dissertation	University Of Pretoria	Adaptation and Translated	Children
2003	Language development	Speech & Language	Die ontwikkeling van vroee fonologiese bewustheid by 'n groep voorskoolse leerders.	Stoop, E	Undergraduate report	University of Pretoria	Normative data	Children

Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
2002	Language learning	Language	Die Afrikaanse semantiese taalevalueringsmedium as metingsinstrument by leergestremde kinders.		Dissertation	University of Pretoria	Adaptation	Children
1999	Language development	Language	Die vertaling van die <i>Reynell taal ontwikkelling III in Afrikaans</i> en die bepaling of die vertaalde weergawe linguisties en kultuureel gepas is vir die Suid Afrikaanse populasie.	Oosthuizen, H S	Undergraduate report	University of Stellenbosch	Translated and adapted	Children
1997	Language development	Language	Die toepaslikheid van die <i>Afrikaanse Reseptiewe Woordeskattoets (ARW</i>) vir 'n groep Afrikaanssprekende kinders	Buitendag, M M	Doctoral thesis	University of Pretoria	Normative data	Children
1995	Language learning	Speech & language	Gesproke en geskrewe taalvermoens van hulpklasleerlinge teruggeplaas in hoofstroomonderwys.	Kleingeld, K	Masters dissertation	University of Pretoria	Normative data	Children
1994	Language learning	Language	Die verband gesproke en geskrewe taal van leergestremdes.	Oosthuizen, J I	Masters dissertation	University of Pretoria	Normative data	Children
1992.	Language learning	Language		Penn,C; Milner, K & Fridjon, P	Article (SAJCD)	University of Witwatersrand	Translated	Adults
1991	Language development	Language	Die opstel en standarisering van die Afrikaanse Reseptiewe Woordeskattoets	Buitendag, M M	Masters dissertation	University of Pretoria	Developed and adapted	Children
1990	Language development and learning	Speech	'n ortodidaktiese perspektief op die Engels onderwys Afrikaans sprekende leerlinge in die sekondere skool	Du Plessis, J	Masters dissertation	University of Pretoria	Normative data	Children
1990	Language development	Language	Interaktiewe ekspressiewe komunikasie van die van drie tot vyfjarige Afrikaans sprekende gehoorgestremde kleuters.	Soer,M E	Masters dissertation	University of Pretoria	Normative data	Children
1988	Language development	Language	Die toepassingswaarde van twee reseptiewe taaltoetse op kinders in Eersterust.	Delport, P		Pretoria	Adaptation	Children
1988	Language development	Language	leerlinge	Pretorius, J E	Doctoral thesis	University of Pretoria	Developed	Children
1988	Language development	Language	Die toepasbaarheid van die <i>Toets vir Mondelinge Taalproduksie</i> (Vorster T,1980) op kleurlingkinders in Eersterust	Terblanche, J P	Undergraduate report	University of Pretoria	Adaptation	Children
1987	Closed head injuries	Language	Die saamstel van 'n Afrikaanse siftingstoets vir geslote hoofbeserings en toepassing daarvan op drie GHB- pasiente.	Van Rossum, M A	Undergraduate report	University of Pretoria	Developed	Adults
1986	Language development	Language	The application of the <i>Peabody Picture Vocabulary Test- Revised</i> to non-mainstream children.	Alant, E & Beukes, S M	Article (SAJCD)	University of Pretoria	Adaptation	Children

Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
1985	Fluency stuttering	Speech	'n Vertaling in Afrikaans en toepassing van die "Systematic Fluency Training for Young Children"- Richard E. Shine.	Weiss, A	Undergraduate report	Pretoria *	Translation	Children
1984	Dysarthria	Speech	Evaluering van die kliniese waarde van die Afrikaanse toets vir spraakverstaanbaarheid van disartrie sprekers.	Willemse, A	Undergraduate report	University of Pretoria	Adaptation	Adults
1983	Language learning	Language	Die voorlopige vertaling van die "Test of Adolescent Language" (Hammill, et al; 1980) in Afrikaans en die vasstelling van voorlopige norme vir Afrikaanssprekende adolessente tussen 11 jaar en 18 jaar en 5 maande.	Burger, T	Undergraduate report	Pretoria	Translated and Normative data	Children
1983	Language development	" "	An equivalent Afrikaans version of the English Reynell Developmental Language Scales (Revised): A pilot study.	Coldrey, S L	Undergraduate report	University of Cape Town	Adapted	Children
1983	Apraxia	Speech	Die fonologiese vermoë van persone met verworwe verbale apraksie.	Du Toit	Undergraduate report	University of Pretoria	Normative data	Adults
1983	Aphasia	Language	The assessment of English/ Afrikaans bilingual aphasic using the Bilingual Aphasic Test.	Jones, D		University of the Witwatersrand	Adaptation	Children
1983	Dysarthria	Speech	Spraakverstaanbaarheid by Afrikaanse Disartriesprekers: 'n voorgestelde toets	Klopper, K	Undergraduate report	University of Pretoria	Developed	Adults

Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
1983	Language learning	Language	A preliminary translation of the Clinical Evaluation of Language Function into Afrikaans and provisional norms for Afrikaans.	Maré, M	Undergraduate report	University of Pretoria	Translated	Children
1983	Hearing disorder	Speech and Language	Afrikaanse spraaklees toets vir jong gehoorgestremde kinders (ouderdom 5 jaar- ongeveer 7 jaar)	Theron, C E	Undergraduate report	University of Pretoria	Developed	Children
1982	Language learning	Language	Die Afrikaanse vokaal-spellingtoets: 'n diagnostiese en terapeutiese hulpmiddel.	Gous, R	Undergraduate report	University of Pretoria	Developed	Children
1981	Cleft of the lip, soft and hard palate- articulation test	Speech	Die opstel van 'n voorlopige artikulasietoets vir Afrkaanssprekende persone met 'n gesplete lip en/of verhemelte.	Blake, C	Undergraduate report	University of Pretoria	Developed	Adults
1981	Language learning	Language	An Afrikaans Translation of an English version of the Token Test: A preliminary investigation.	Board, M S	Undergraduate report	University of Cape Town	Translated	Children
1980	Brain injury with aphasia	Language	Die vertaling in Afrikaans van 'n verkorte weergawe van die Token-Test (De Renzi en Faglioni, 1978) en toepassing daarvan op breinbeseerdes met afasie breinbeseerdes sonder afasie en normales.	Meyer, E	Undergraduate report	University of Pretoria	Translated	Adults
1974*	Articulation	Speech	'n Ondersoek na die ontwikkeling van artikulasie by die Afrikaanssprekende kind met die oog op die opstel van 'n geskikte artikulasietoets	Lotter,E C	Masters dissertation	University of Pretoria	Developed	Children
1970*	Language development	Language	Die nut van die <i>Illinois test of psycholinguistic abilities</i> vir die spraakterapeut : asook 'n voorlopige ondersoek na die moontlikheid van 'n Afrikaanse vertaling en aanpassing van die toets by Suid-Afrikaanse omstandighede	Lotter,E C	Undergraduate	University of Pretoria	Translated & adapted	Children

^{*} Prominent study done prior to 1980
* Prominent study done prior to 1980

·····			2. South African E	nglish				
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
2006	Language learning	Language	Profiling language in young urban English additional language learners.	Naude, E C	Doctoral thesis	University of Pretoria	Developed	Young learners
2005	Tongue twister	Speech	The typical performance of first language speaker English speakers aged 19-36 years on the tongue twister task of a speech assessment battery.	Alston, N	Undergraduate report	University of Witwatersrand	Normative data	Adults
2005	Articulation	Speech	The performance of adults on single word tasks within a speech assessment battery,	Karodia, N	Undergraduate report	Witwatersrand	Normative data	Adults
	Severe multi disabilities	Language	The associations English speaking South African, adolescents make with Minspeak TM Icons found on the unity 128 software package		Undergraduate report	Pretoria	Normative data	Adolescents
	Word repeating	Speech	The performance of English speaking late adolescents on multi-syllabic and nonsense word repetition tasks	Phillippou, E	Undergraduate report	University of Witwatersrand	Normative data	Adolescents
	Sound segments	Speech	'n Fonetiese oorsig van die klanksegmente van Suid Afrikaanse Engels.	Tesner, H	Article- Clinika	University of Pretoria	n.a	Adults
	Phonological awareness	Language	The phonological awareness, written spelling and oral reading of learners in an inclusive English-medium education setting.	Pijper N.C	Masters dissertation	University of Pretoria	Normative data	Children
2003	Auditory processing	Language	The performance of South African English First and Send Language adult speakers on a Low Linguistically Loaded Central Auditory Processing Test Protocol.	Saleh, s; Campbell, N G & Wilson, W J	Article (SAJCD)	University of Pretoria		Adults
2002	Auditory processing	Language	Preliminary normative data for adult English first and second language speakers in South Africa on the "RSA low linguistically loaded central auditory processing test battery"	Saleh, S	Masters dissertation	University of Pretoria	Normative data	Adults
1999	Phonological awareness	Language	Phonological awareness skills: The applicability of sub tests from the <i>Phonological Assessment Test Battery</i> (Frederickson, Frith & Reason, 1997)	Johns, S	Undergraduate report	University of KwaZulu-Natal	Adaptation	Children
1996	Language development	Language	The development of a framework for assessing developing conversational skills.	Rumble, S & Malan, K	Article (SAJCD)	University of Cape Town	Developed	Children
1993.	Auditory processing	Language	A comparison of the performance of English first language learners on the TACL-R (Test for Auditory Comprehension of Language)	Post, S.P	Undergraduate report	University of Pretoria	Normative data	Children

Year of study	Type of Disorder	Communication Skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
1992	Language developmen t	Language	The validity and reliability of an English vocabulary test designed for assessing black pre-school children who speak English as a second language.	Jenya, P		Witwatersrand	Adaptation	Children
1992	Word-finding	Language	African context.	Pahl, J & Kara M.B	(Durban Westville.	Adapted	Children
	Language developmen t	Speech	The development of a framework for assessing children's conversational skills and its use in a preliminary investigation into developmental trends in normal three, four, and five tear olds.	Rumble, S.	Undergraduate report	University of Cape Town	Developed	Children
1985	Language learning	Language	An investigation into the performance of normal English speaking South African Indian adults on the Peabody Picture Vocabulary Test (Dunn, 1965.)	Manickam, L	Undergraduate report	University of Durban Westville.	Adaptation.	Adults
1985	Language learning	Language	An investigation into the suitability of specific modifications to the stimulus material of the <i>test for oral language production (TOLP: Vorster, 1980)</i> with regards to the assessment of South African English speaking Indian children.	Patel, R.A.H		Durban Westville.	Adaptation	Children
1985		Language	An investigation into the suitability of the CADL for English speaking Indian South Africans.	Pillay, P		University of Durban Westville.	Adaptation	Adults
1984	Language learning	Language	An investigation of the performance of class one English speaking Indian children on the <i>North-Western Syntax Screening Test</i> .	Pillai, D. D	Undergraduate report	University of Durban Westville.	Adaptation	Children
1983	Aphasia	Language	The assessment of English/ Afrikaans bilingual aphasic using the Bilingual Aphasic Test.	Jones, D	report	University of the Witwatersrand	Adaptation	Children
1983	Stuttering	Language	An investigation into the expressive syntactic abilities of coloured English speaking, South African male stutteres between the ages, 8-10 years.	Perumal,M	Undergraduate report		Normative data	Children
1983	Language learning	Language	The language performance of English-speaking Indian children on the TOLP.	Rhemtula, Y.A	Undergraduate report	University of the Witwatersrand	Adaptation	Children
1981	Language learning	Language	An assessment of the grammatical analysis of elicited language – Simple sentence level test as a clinical tool.	Franklyn, C,R.	Undergraduate report	University of the Witwatersrand	-	Children
1980	Developmen tal articulatory apraxia	Speech	A construction of a diagnostic test battery for Developmental Articulatory Apraxia.	Bernstein, K	Undergraduate report	Pretoria	Developed	Children
1980	Language learning	Language	An assessment procedure for studying interactive discourse in the older child.	Matzkin, N	Undergraduate report	University of the Witwatersrand	Developed	Children

			3. Northern Soth	0				
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
2005	Early literacy skills	Language	The development of early literacy skills among a group of urban Sepedi speaking children.			University of Pretoria	Developed	Children
2005	Cleft palate	Speech	Preliminary perceptual speech assessment protocol for Sepedi speaking pre-school children with cleft palate.	Streicher, D	Undergraduate report	University of Pretoria	Developed	Children
1999	Speech intelligibility	Speech	Sepedi-toets vir spraakverstaanbaarheid.	Fouche, S & Van der Merwe, A	Article (SAJCD)	University of Pretoria	Developed	Adults & Children
1998	Speech intelligibility	Speech	Die opstel van 'n Sepedi toets vir spraakverstaanbaarheid.		Undergraduate report	University of Pretoria	Developed	Adults & children
1997	Language learning	Language	Culturally valid assessmnt tools: Northern Sotho translation of the Peabody Picture Vocabulary Test- Revised		Article (SAJCD)	University Of Pretoria	Normative data	Children
1997	Language developmen t	Language and speech	'n Ondersoek na die toepaslikheid van 'n vertalling (met aanpassings van die "Flurharty pre-school speech and language test,1978") in Noord Sotho.		Undergraduate	University Of Pretoria	Adaptation	Children
1996.	Language learning	Language	The translation of the Peabody Picture Vocabulary Test Revised into the Northern Sotho. A preliminary investigation.		Masters dissertation	University Of Pretoria	Translated	Children
1994	Language learning	Language	Die toepaslikheid van'n Noord Sotho vertaling van die Peabody Picture Vocabulary Test (Revised PPVT-R) by 'n groep skoolgaande kinders	Koekemoer, H	Undergraduate report	University of Pretoria	Adaptation	Children
1992.	Aphasia	Language	Translation and adaptation of the Western Aphasia Battery for use with Sepedi speakers	Mangena, M	Undergraduate report	University of Witwatersrand	Translated and Adaptation	Adult
1992.	Stroke	Language	The Communicative Effectiveness Index: Its use with South African stroke patients	Penn,C; Milner, K & Fridjon, P		University of Witwatersrand	Translated	Adults
1990	Language learning	Language	The application of the PPVT-R to an urban group of North Sotho speaking children.		Undergraduate report	University of Pretoria	Adaptation	Children
1986	Speech intelligibility	Speech	Assessment of speech intelligibility in five South eastern Bantu languages: Critical considerations	Jacobson, M.C & Traill, A	Article (SAJCD)	University of Witwatersrand	Normative data	Adults

	4. Setswana										
Year o	71	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group			
1999	Language learning	Language	. To determine the efficacy of <i>TSWERLA</i> on Tswana pre-school children in Hammanskraal.	Rangaka, M.E.	Undergraduate report	University of Pretoria	Adaptation	Children			
1986	Speech intelligibility	Speech	Assessment of speech intelligibility in five South eastern Bantu languages: Critical considerations	Jacobson, M.C & Traill, A		University of Witwatersrand	Normative data	Adults			

	5. Southern Sotho									
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group		
1986	Speech intelligibility		Assessment of speech intelligibility in five South eastern Bantu languages: Critical considerations	Jacobson, M.C & Traill, A	Article (SAJCD)	University of Witwatersrand	Normative data	Adults		

			6. Xhosa					
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
2004	Language learning	Language	'n Voorlopige ondersoek na die toepaslikheid van geselekteerder items van die Afrikaanse reseptiewe woordeskattoets (ARW) vir herbenoeming in Xhosa.	Schreuder, N		University of Stellenbosch	Adapt and adaptation	Children
	Aphasia, apraxia & dysarthria	Speech & Language	The development of a test battery for the differential diagnosis of aphasia, apraxia & dysarthria in Xhosa speakers.	Jacoby, K	Undergraduate report	University of Stellenbosch	Developed	Adults
1995	Language learning	Language	A Picture Identification Test for Xhosa speaking adults who have not completed secondary education.	Shaw, L.A	Undergraduate report	University of Cape Town	Developed	Adults
	Language learning	Language	An investigation of cross-cultural differences of children's performance on the Peabody Picture Vocabulary Test Revised in South Africa.	Schweizer, G	Undergraduate report	University of Cape Town	Adaptation	Children
1992	Articulation	Speech	Die hersiening van 'n Xhosa Artikulasie Siftingstoets en die toepassing daarvan op 25 vyf-jarige Xhosa sprekende kinders.	Holm, A	Undergraduate report	University of Stellenbosch	Adaptation	Children
1992.	Auditory	Language	The revision and application of the Xhosa Test for the Auditory Comprehension of language (XTACL).	Leggo, S	Undergraduate report	University of Stellenbosch	Adaptation	Children
1987	Auditory	Language	A Xhosa translation of the English Carrow Test of Auditory Comprehension	Willenberg, I	Undergraduate report	University of Cape Town	Translated	Children
1986	Speech intelligibility	Speech	Assessment of speech intelligibility in five South eastern Bantu languages: Critical considerations	Jacobson, M.C & Traill, A	Article (SAJCD)	University of Witwatersrand	Normative data	Adults

,			7. Zulu													
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group								
2005	Language developmen t	Speech	A developmental profile of speech sound and syllable acquisition in Zulu speaking children	Naidoo, Y	Article (SALALS -Vol 23)	University of Pretoria	Normative data	Children								
2003	Language developmen t	Speech	A developmental profile of speech sound and syllable acquisition in Zulu speaking children	Naidoo, Y	Masters dissertation	University of Pretoria	Normative data	Children								
2001 (2) (3)	Language learning	Language	The adaptation of the <i>Peabody Picture Vocabulary Test revised</i> to a culturally appropriate Zulu picture vocabulary. A pilot study.	Mokgata, M	Undergraduate report	University of Witwatersrand	Adaptation	Children								
2001	Language learning	Language	Verbal solutions of rural Zulu speaking children to problems encountered in everyday life.	Solarsh, B		University of Pretoria	Normative data	Children								
2000	Language learning and developmen t	Language	Investigation of language impairment in Zulu.	Suzman , S M & Tshabalala, B		University of Witwatersrand	Normative data	Children								
1999	Language developmen t	Speech	Developmental profile of speech (consonantal phonemes) development in Zulu speaking children between the ages of three to five years.	<u> </u>	Undergraduate report	Kwazulu-Natal	Normative data	Children								
1997	Language learning and developmen t	Language	An investigation into language assessment procedures conducted by SLT in their assessment of Zulu first language children being instructed in the English medium	Reddy, D		University of Durban- Westville	n.a.	Children(2 nd Langauge)								
1995	Language developmen	Language	A language assessment for pre-school Zulu speaking children (ZERLA).	Bortz, M A		University of Witwatersrand	Developed	Children								
1992	Language developmen	Language	Language abilities of 18-month old Zulu speakers.	Bortz, M A		University of Witwatersrand	Normative data	Children								
1992.	Stroke	Language	The Communicative Effectiveness Index: Its use with South African stroke patients	Penn,C; Milner, K & Fridjon, P	Article (SAJCD)	University of Witwatersrand	Translated	Adults								
1990	Aphasia	Language	The Bilingual Aphasia Test (the assessment of English and isi- Zulu in a multilingual Aphasic patient using BAT).	Baloyi, W.J		Witwatersrand	Normative data	Adults								
1988	Language developmen t	Language	The acquisition of Zulu: Evidence from three, four, and five year old Zulu speakers.	Mtshazo, N.N.N.		University of the Witwatersrand	Normative data	Children								
1983.	Language learning	Language	Performance of Zulu speaking children on a literal translation of the <i>RDLS</i> .	Masiloane,M		University of the Witwatersrand	Translated	Children								

	8. Other related studies											
Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group				
2005	Language development	Language	Multilingual preschool learners: A collaborative approach to communication intervention.	Du Plessis , S	Thesis	University of Pretoria	Normative data	Children				
2005	Auditory processing	Language	Temporale ordeningsvaardighede van persone uit verskillende kulture in Suid-Afrika			Pretoria	Normative data	Adults				
2005	Apraxia	Speech	Diagnostic criteria, assessment procedures and management of developmental apraxia of speech used by speech-language pathologists in the South African context.	Strauss, C	'	Witwatersrand	n.a.	n.a.				
2005	Language learning	Language	Die ontwikkeling van 'n evaluasie protokol en die implimentering daarvan in 'n ondersoek oor die taalvaardighede van kinderslagoffers vanuit 'n lae sosioekonomise agtergrond, wat in die hof moet getuig.	Streuders, R	Undergraduate report	Stellenbosch	Developed	Children				
2004	Auditory processing	Language	Voorlopige ouditiewe temporale prosesserings data by jong volwassenes in Suid Afrika .	Fick, L	Undergraduate report	University of Pretoria	Normative data	Adults				
2004	Auditory processing	Language	Die opstel van voorlopige normatiwe data vir die "Random Gap Detection Test" vir kinders in Suid Afrika met die ouderdom agt, nege, tien en elf jaar.	Middeljans, M	Undergraduate report	University of Pretoria	Developed & normative data	Children				
2003	Auditory processing	Language	Adult normative data for the South African low linguistically loaded auditory processing test battery.	Godbold, C.	Undergraduate report	University of Pretoria	Normative data	Adults				
2002.	Pragmatics	Language	Die evaluering van die toepaslikheid van 'n bestaande pragmatiese protokol om die pragmatiese vaardighede by die jong kind afkomstig uit verskeie kulture agtergronde binne die Suid Afrikaanse konteks te ontlok.	Kruger, R	Undergraduate report	University of Pretoria	Adaptation	Children				
2001	Auditory processing	Language	The compilation and application of an assessment battery for the measurement of early auditory processing skills in young children.	Fair,L	Masters dissertation	University of Pretoria	Developed	Children				
2001	Communicatio n interactions	Speech & Language	Communication interaction patterns between a group of Black South African caregivers and the young children in their care.	Ligthelm, A	Masters dissertation	University of Pretoria	Normative data	Children and adults				
2000	Language development	Speech &Language	Compilation and formative data evaluation of a preliminary Neonatal Communication Assessment Tool.	Swanepoel, D	Undergraduate report	University of Pretoria	Developed	Children (neonates)				
1998	Auditory processing and phonological awareness	Speech	The efficacy of auditory processing and phonological awareness assessment measures for predicting spelling performance in children with specific learning disability.	Graz, H	Masters dissertation	University of Pretoria	Adaptation	Children				

Year of study	Type of Disorder	Communication skills to be evaluated	Title of study and/or material	Author(s)	Available format	University	Adapted/ translated/ developed	Target group
1998	Hearing impairment	Speech and language	Culturally congruent early communication intervention: theory and practical implementation with a young Black South African hearing impaired child.	Hansen, H A	Masters dissertation	University of Pretoria	Normative data	Children
1996	Language learning	Language	'n Ondersoek na adolessente se kreatiwiteit in geskrewe narratiewe in 'n multikulture konteks.	Venter, M	Undergraduate report	University of Pretoria	Normative data	Adolescent
1996	Closed head injuries	Speech & Language	Speech-Language evaluation of closed head injured subjects in South Africa: Cultural applicability and ecological validity of a test battery.	Watt, N Penn, C Jones, D	Article	University of Witwatersrand	Normative data	Adults (closed-head injury patients)
1994	Severe disabilities	Language	The development of a screening schedule for teachers to describe the communication abilities of severely handicapped children.	Wium, A	Masters dissertation	University o Pretoria	Developed	Adults (teachers)
1985	Pragmatics	Language)	The profile of communicative appropriateness: A clinical tool for the assessment of pragmatics.	Penn, C	Article	University of Witwatersrand.	Developed	Adults
1985	Autism	Speech & Language	Die opstelling en toepassing van 'n kommunikasie –evaluasie profiel op outistiese kinders.	Rheeder, H K	Undergraduate report	University of Pretoria	Developed and Adapted	Autistic children
1980	Language development	Language	'n Ondersoek van die sintaktiese vermoens van die verstandelik-vertraagde kind.	Van der Hoven, R M	Undergraduate report	University of Pretoria	Normative data	Children

3.2 Quantitative data regarding available material

A variety of studies were identified of which the quantitative information is summarised in Table 2. A total of 97 studies that aimed at developing, translating and /or adapting linguistically and culturally sensitive assessment material in seven of the languages of South Africa were identified. Additional 18 studies that are related to these language specific studies were also identified. The assessment material focussed on various disorders that included articulation, language development disorder, language learning disorder, autism, right hemisphere syndrome, apraxia, and dysarthria. (See Table 2)

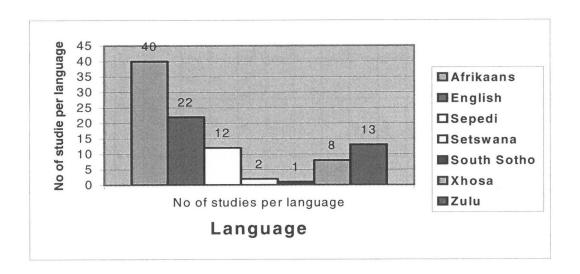


Figure 1: Total number of studies done for each language

When considering the totals depicted in Table 2, interesting information is derived. As indicated in Figure 1, most of the studies focussed on assessment material for Afrikaans (40), and for English (22). Sepedi (12) and Zulu (13) attracted less attention of researchers while eight studies were identified for Xhosa; two for Setswana and one for Southern Sotho. No studies however focussed on Xitsonga, Venda, Ndebele, and

Table 2: A summary of quantitative data concerning available, linguistically- and culturally-sensitive assessment material for South Africa.

Language	Total no. Studies	No. Of	studie	s per 5	year	cycle	Skills	asses	sed	A		Ori		Target population						
		2006 - 2000	1999 - 1995	1994 - 1990	-	1984 - 1980	Speech	Lang uage		Undergrad uate	Postgr M	aduate D	Articles	Develo ped	Trans lated	Adapt ed	Norma tive data	Adults	Child ren	Both
Afrikaans	40	13	3	5	6	12	7	27	5	25	9	2	4	8	6	14	24	10	29	1
English	22	9	2	3	4	4	5	17	-	15	2	1	4	3	-	8	4	7	15	-
Sepedi	12	2	5	4	1	-	4	7	1	6	2	-	4	4	2	4	3	3	7	2
Setswana	2	-	1	-	1	-	1	1	-	1	-	-	1	-	-	1	1	1	1	-
Southern Sotho	1	-	-	-	1	-	1	-	-	•	•	-	1	-	-	-	1	1	-	-
Xhosa	8	1	2	3	2	-	2	5	1	7	-	-	1	2	1	4	1	3	5	-
Zulu	12	5	3	3	1	1	3	10	-	6	2	1	4	1	2	1	8	2	11	-
Total	97	30	16	18	16	17	23	67	7	60	15	4	19	18	11	32	42	27	68	3
%	100	31.9	16.5	18.6	16.5	17.5	23.7	69	7.2	61.8	15.5	4.1	19.6		n.a			27.8	70.1	3.1
Other related studies	18	11	4	1	2	2	2	11	5	9	5	1	2	7	-	3	8	6	10	1

Swati. If this data is compared to statistics concerning the language representation in South Africa it is clear that there is an imbalance. Considering the importance of assessing the clients speech and language skills in his or her first language, this imbalance is a matter of concern over the past 25 years no studies had been done to develop, adapt or translate assessment material some of the official languages of South Africa.

The question is how speakers of these languages are assessed since these are the languages spoken in South Africa mostly. The limited number of studies that focussed on Xhosa is also aproblem when the fact that it is the language spoken by almost +/-17.6 % (Cyberserv- Statistics of language speakers in SA) of the population is taken into account. It seems that much still has to be done with regard material for assessment of speech and language in most of the African languages of South Africa.

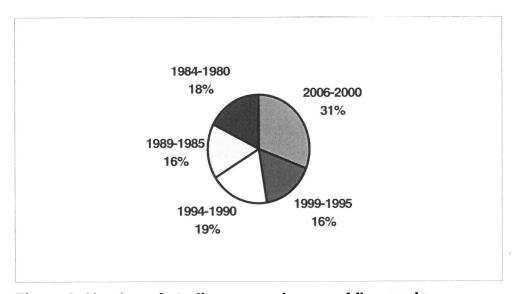


Figure 2: Number of studies per cycle year of five or six.

There seems to be an increase in the total number of studies done in recent years. During 2000 to 2006 there are a total of 30 studies done, as opposed to 16 to 20 during the previous five to six year cycles (See Figure 2). The pattern is however not seen for

all the languages. Although English shows a number of 9 studies in 2006-2000, the majority of studies on material for Afrikaans was also done in this year cycle of 2006-2000. In Sepedi most studies were done in 1999 -1995. In the African languages there were no assessment materials introduced during 1984-1980, except in Zulu where there is one test translated during this cycle. In Setswana the two materials done were during the period 1999-1995 and 1989-1985. Respectively in Xhosa the most studies were done from 1990-1994.

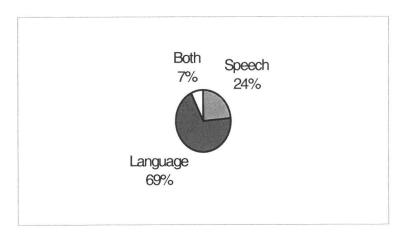


Figure 3: The communication skills targeted with assessment material identified

As indicated in Table 2 the majority of the studies focussed on the assessment of language skills, whereas only 23 studies in total focussed on speech production abilities. More of the studies focussed on the assessment material of language skills in Afrikaans and English. In all the languages except Southern Sotho with (1) and Setswana (2), most materials were aimed at assessing language skills. The question that arises is how communication skills of African languages speaking children are assessed, considering how many of them are second language learners in English medium schools where they may be incorrectly labelled as children with speech and language problems.

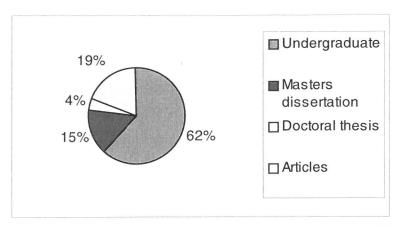


Figure 4: Available format of assessment material identified

As illustrated in Figure 4, the majority of the studies were published as undergraduate research reports (60); 15 were published as postgraduate dissertation and 4 were published as doctoral theses. Only 19 of the studies published as articles in subject journals. This data supports the argument that although linguistically and culturally sensitive assessment tools may be available, SLT's working in South Africa may not be aware of it since very few published.

It is difficult to provide specific totals for the number of studies that focussed on development /translation or adaptation, since in some instances for example a particular study involved the translation and adaptation of material. A total of 30 studies however, provided normative data for some of the different languages. Most studies involved the translation of material from English. Although one study each in Setswana and Southern Sotho provided normative data no new material was developed and or translated.

Figure 5 shows that considering the total number of studies, it seems that the majority of the studies focussed on material for assessment of children (68) rather than adults (27) or both children and adults (3). There are no assessment materials that can be used for both children and adults except the English with (2) materials for the assessment of both adults and children. The latter is a disturbing result, which confirms that first and second language English speaking children are probably evaluated with tests that are not necessarily culturally or linguistically valid.

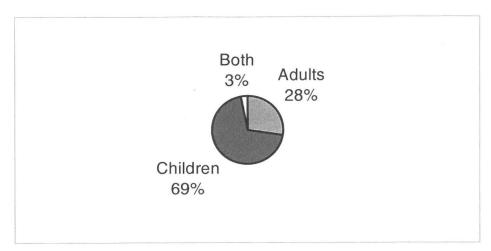


Figure 5: The population groups targeted in the studies concerning assessment material

3.3 Discussion of results

From the inventory and quantitative data summarised in Table 1 & 2 it is observed that material is available in Sepedi, Zulu, Xhosa, Afrikaans, English, Setswana and South Sotho. However there were no material found in Ndebele, Swati, Tsonga and Venda. When we compare the results of material that has been identified with the percentage of speakers per language in South Africa (South African Statistics, 2001) there is an imbalance. South Africa has eleven official languages and the assessment material was is not available in all the eleven official languages. When we look at the statistics of the population of South Africa (2001) they show that the language which is mostly spoken is Zulu then follows Xhosa, Afrikaans, Sepedi, English then other languages (See table 2). It is clear that assessment material has not yet been developed to do linguistically and culturally valid assessments of clients who are first language speakers of all of these languages. This would mean that speech language therapists in South Africa are still not, in all instances, able to approach speech and language assessment from a linguistically and cultural framework as suggested by Taylor (1986) and others.

As we take a look at the table 1, there is a total of ninety seven (97) hundred and twenty five in number of materials that has been identified from the past 26 years. And there are two-assessment materials that most members of staff on feedback mentioned that

they should also be on the list though they were done prior 1980. From the table the number of studies done in each cycle of year is not stable because in the first cycle (2000-2006) there are a lot of studies done as compared to the other year cycles. We still need to explore assessment material in other languages. Most studies give normative information. There seems to be a tendency towards more studies in this regard in recent years.

There seems to be a preference for research for assessment material in specific languages, done at the different academic departments concerned. Studies concerning assessment material for South African English were done at all the departments except the University of Stellenbosch. Most Afrikaans and Sepedi studies of assessment materials were done at the University of Pretoria (54). Zulu studies were mostly done at the University of Durban-Westville/Kwazulu-Natal (8). Xhosa assessment material had been done at University of Cape Town (7) and Stellenbosch (6), and students or staff members at the University of the Witwatersrand (23) were involved with assessment material in Zulu, Sepedi and Xhosa. None of the studies concerning assessment material were done at Medunsa (University of Limpopo) There seems to be a geographic/regional factor involved, which makes sense in terms of the local need that exists for the material and the home language of the clientele in the different areas.

There were more studies done for language assessment than for speech assessment, or for both speech and language assessment. As speech as well as language is part of the communication process (Plante & Beeson, 1999) it seems that more attention should now be given to material for speech assessment in languages other than Afrikaans or English. Disorders that attracted the most attention are language learning and language development disorders. It is evident that not even basic speech articulation tests are available for all of the official languages of South Africa.

Most studies have been done on an undergraduate level and less has been done on postgraduate level. Since not all of the material has been standardised postgraduate students, who are able to spend more time on their research, should be encouraged to become involved in standardizing some of these valuable materials. It is a matter of concern that so few of the assessment materials or studies in this regard has led to the publication of articles in subject journals or has been published as such. This means that practicing therapists have no way of knowing about the material that is available.

There are more language tests, which are been done at an undergraduate level. And most assessment material has been adapted. The population group mostly targeted is the children. As we take a look at Table 1, this pattern is observed in all the languages. It has to be kept in mind that adults in rural areas may have fewer skills in Afrikaans or English than children who are at school and who watch television and may have better abilities in those languages. Children may not have such a problem of taking part in new activities since they are more frequently exposed to English and Afrikaans in schools and when watching television. It is therefore important, as SLT's to develop more assessment material, which will cover all age groups, so that everybody will receive effective speech and language services.

Considering the fact that most therapists are conversant in Afrikaans and English there is a mismatch with regard to language, and what is expected cannot be reached because of language and cultural barriers. Even African therapists are not conversant in all the eleven languages of South Africa. So it is important that when we develop or translate material, it should be done in consultation with African Languages Departments and also the Language Board. This will ensure validity of material.

Goldstein (2000) said that it is preferable to know the language and cultural background of the client when assessing. According to CASLPO's (2000), when the therapist does not have the linguistic skills and cultural knowledge of the client, it is important to collaborate with another individual who has those skills. The lack of culturally and linguistically valid assessment material will affect diagnosis and intervention (Screen & Anderson, 1994).

4. CONCLUSIONS

The aim of this study was to compile a detailed inventory of linguistically and culturally sensitive material, currently available to the SLT's for the evaluation and/or diagnosis of speech and language disorders, in children and adults, in South Africa

4.1 A summary of findings

Information gathered indicates that there is a large body of assessment material available that has been developed over the past 25 years. The most important findings include the following:

- A total of 97 studies were done for seven languages of the South African languages and 18 studies directly related to culturally and linguistically sensitive assessment in South Africa, were also identified.
- Assessment materials in Afrikaans and English received most attention. A number
 of studies focussed on Zulu and Xhosa material but not all African languages were
 addressed. Recently the studies that focussed in adaptation, translation and
 development has increased.
- The majority of the studies focussed on assessment of language learning and language development disorders.
- Most of the studies conducted concerned language skills, as opposed to speech production skills.
- The majority of material originated from undergraduate studies rather than postgraduate studies or staff research.
- Only 20% of studies led to publications, confirming the initial concern regarding dissemination of material that led to this study.
- The majority of studies were aimed at assessment of children rather than adults.
- Most of the studies involved adaptation and translation of assessment material, and a large number of studies collected normative data of assessment.
- Statistical data regarding contributions of different departments should be considered with care, since the list may admittedly not be incomplete. Relatively

limited feedback from staff members at departments other than University of Pretoria, may have influenced the comprehensiveness and accuracy of the inventory to some extent. Other inter-departmental differences (e.g number of years involved, student intake, study options) will also influence the output with regard to this type of research studies.

4.2 Critical evaluation of the research

As in any research specific strengths and weaknesses could be identified. Limitations that were identify include the following: Information of studies conducted at other departments may be incomplete due to limited feedback from other University's member of staff, especially postgraduate studies.

Information regarding the validation or standardization of the assessment material is not provided. This can mainly be contributed to the time limitation set for the research and the researchers limited knowledge of Afrikaans. However the inventory should in essence be seen as an initial attempt to establish a database for linguistically and culturally sensitive assessment material available to the SLT working in South Africa.

Strengths of the research include the following: Feedback from other member of staff and a variety of sources has been of great value and contributes to the value of the information included in the inventory. This type of data is rare and locally relevant enhancing the value of the study. The structure way in which the information is presented contributes to the practical and clinical value of the study. Quantitative data regarding the studies and material available provides guidelines for further research.

4.3 Recommendation for further research

As communication is a process that also involves hearing I recommend that the inventory should be expanded to include assessment material for Audiology.

The inventory presented here should not be seen as a complete list, on the contrary it is recommended that it should be regularly updated. Information about the validation or standardization should also be added.

Studies should be conducted to develop or translate assessment material in other languages such as Xitsonga, Tshivenda, siSwati, isiNdebele, and more in South Sotho, Setswana, Xhosa, Zulu and Sepedi. These studies should be done on all the components of communication namely speech, language and hearing. (Plante & Beeson, 1999).

The assessment material available and the new which, are still to be developed, should be validated on a large number of people and norms should be developed so that the material can be standardised.

The researcher welcomes the proposed initiative of SASLHA to collect and disseminate information regarding the topics of graduate research at the various departments in South Africa in their monthly electronic newsletters (Visser, 2006). Such information will aid in introducing the availability of newly developed/ translated/ adapted culturally and linguistically valid assessment material for use in working with speech and language problems in South Africa.

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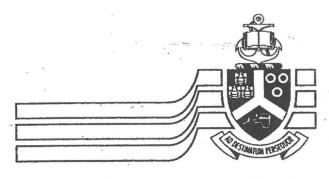
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APPENDIX A





University of Pretoria

Department of Communication Pathology Speech, Voice and Hearing Clinic

Tel : +27 12 420 2357 Fax : +27 12 420 3517

Email: blouw@postino.up.ac.za

4 April 2006

Dear Miss Mphalhele

PROJECT: A detailed inventory of linguistically and culturally sensitive,

speech-and language assessment material, available to

speech-language therapists working in South Africa

RESEARCHER: Mphalhele, Comfort

SUPERVISOR: Mrs E Groenewald

Thank you for the application for ethics clearance submitted to the departmental Research Committee.

I have pleasure in informing you that the application was formally approved.

We wish you success with the project.

blower

Sincerely

Mrs É Groenewald

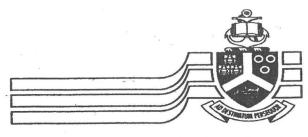
Chair: Departmental Research Committee

Prof. B Louw

Head: Department Communication Pathology

University of Pretoria

LETTER TO ACADEMIC STAFF AT UNIVERSITY DEPARTMENTS INVOLVED IN TRAINING OF SPEECH-LANGUAGE THERAPIST & **AUDILOLOGIST**



University of Pretoria

Department of Communication Pathology Speech, Voice and Hearing Clinic

Tel : +27 12 420 2355 Fax : +27 12 420 3517

Email : brenda.louw@up.ac.za

February 2006

Dear member of Staff

Requesting your participation in an undergraduate research project:

A DETAILED INVENTORY OF LINGUISTICALLY AND CULTURALLY SENSITIVE SPEECH AND LANGUAGE ASSESSMENT MATERIAL FOR USE IN SOUTH AFRICA

As a fourth year student I am conducting a research project in partial fulfilment of the requirements for the qualification B. Communication Pathology (Speech- Language Therapy), U.P. The purpose of my research is to compile a detailed inventory of linguistically and culturally sensitive assessment material, available to Speech-language therapists (SLT), working with clients from indigenous population groups of South Africa. As you know, research conducted at various departments in South Africa, for degree and non-degree purposes, often involves the translation, adaptation or development of linguistically and culturally sensitive assessment material. Unfortunately the outcomes of these studies are not always published or made available to the broad spectrum of SLT's. The goal of my study is to identify and qualify currently available assessment material and to summarise the information in the form of a detailed inventory that will be accessible to all SLT's in South Africa.

As an academic involved in research, teaching and clinical training of SLT's, your input will be extremely valuable in this regard. Attached is a provisional list of locally relevant assessment material that I have been able to collect on the basis of a literature survey. I would like to invite you as a member of staff, who are currently or have previously been involved in SLT training and research supervision, to participate in the study. Participation will entail reviewing and where possible verifying the contents of the provisional list by a) adding any information of additional assessment material/studies that you may be aware of; or by b) pointing out inaccuracies that may be present in the provisional list. Your willingness to participate and to contribute to this study would be highly appreciated.

Your participation will be completely voluntary and although the name of the department at which a particular study had been done would inevitably be added in the inventory, your name as participant

and member of staff, providing the information, will not be linked to the data. Please note that by responding to this request, you will by implication confirm that you have taken note of the above and that you give your informed consent to participate in the study. Although you are welcome to make use of the information included in the provisional list attached, you should please keep in mind that academic staff in the field of communication pathology has not yet verified the information included. After the study has been completed, the final research report will be available on the sixth floor of the Academic Information Centre, U.P. I will also seek to publish the final list in a subject related publication.

Should you have any questions with regard to the study you may contact my supervisor during office hours.

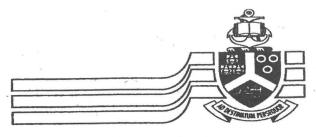
Research supervisor: Mrs. E. Groenewald

Sincerely

Student researcher: Comfort Mphahlele

Head of Department: Prof. B. Louw

LETTER TO HEAD OF DEPARTMENTS AT UNIVERSITY DEPARTMENTS INVOLVED IN TRAINING OF SPEECHLANGUAGE THERAPIST & AUDIOLOGIST



University of Pretoria

Department of Communication Pathology Speech, Voice and Hearing Clinic

Tel : +27 12 420 2355 Fax : +27 12 420 3517 Email : brenda.louw@up.ac.za

February 2006

Professor
Head of the Department of
University of
Dear Prof

Requesting your support for an undergraduate research project:

A DETAILED INVENTORY OF LINGUISTICALLY AND CULTURALLY SENSITIVE SPEECH AND LANGUAGE ASSESSMENT MATERIAL FOR USE IN SOUTH AFRICA

As a fourth year student I am conducting a research project in partial fulfilment of the requirements for the qualification B. Communication Pathology (Speech Language Therapy), U.P. The purpose of my research is to compile a detailed inventory of linguistically and culturally sensitive assessment material, available to Speech-language therapists (SLT), working with clients from indigenous population groups of South Africa. As you know, research conducted at various departments in South Africa, for degree and non-degree purposes, often involves the translation, adaptation or development of linguistically and culturally sensitive assessment material. Unfortunately the outcomes of these studies are not always published or made available to the broad spectrum of SLT's. The goal of my study is to identify and qualify currently available assessment material and to summarise the information in the form of a detailed inventory that will be accessible to all SLT's in South Africa.

As academics involved in research, teaching and clinical training of SLT's, your input as well as that of your members of staff will be extremely valuable in this regard. Attached is a provisional list of locally relevant assessment material that I have been able to collect on the basis of a literature survey. I would like to request your permission to invite members of staff in your department, who are currently or have previously been involved in SLT training and research supervision, to participate in the study. Participation will entail reviewing and where possible verifying the contents of the provisional list by a) adding any information of additional assessment material/studies that you/they may be aware of; or by b) pointing out inaccuracies that may be present in the provisional list. Your and your staff's willingness to participate and to contribute to this study would be highly appreciated.

Should you as head of department be willing to support this effort, I would appreciate your forwarding this request to the members of your staff. Your and their participation will be completely voluntary and although the name of the department at which a particular study had been done would inevitably be added in the inventory, your names as participants and members of staff, providing the information, will not be linked to the data. Please note that by responding to this request, you and your staff will by implication confirm that you have taken note of the above and that you give your informed consent to participate in the study. Although you are welcome to make use of the information included in the provisional list attached, you should please keep in mind that academic staff in the field of communication pathology has not yet verified the information included. After the study has been completed, the final research report will be available on the sixth floor of the Academic Information Centre, U.P. I will also seek to publish the final list in a subject related publication.

Should you have any questions with regard to the study you may contact my supervisor during office hours.

Toenewald

Research supervisor: Mrs. E. Groenewald

Sincerely

Student researcher: Comfort Mphahlele

Head of Department: Prof. B. Louw



APPENDIX C: DECLARATION PLAGIARISM

UNIVERSITEIT VAN PRETORIA

FAKULTEIT GEESTESWETENSKAPPE

	DEPARTEMENT KOM	MUNIKASIEPAT	OLOGIE
	VERKL	ARING	
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Full name:	RAMATSI MELE	Com For	2.T
Student Number:	99165636		
Degree:	B. COMMUNIC	CATION	PATHOLOGY
I declare that this material is used, this with university requir	has been carefully acl	own original controlled of a	al work. Where secondary and referenced in accordance
I understand what plathis regard.	lagiarism is and am aw	are of the Ur	niversity of Pretoria's policy in
SIGNA	MIQQ TURE		21/09/2006 DATE

LIST OF DEPARTMENTS AT UNIVERSITIES INVOLVED IN
TRAINING OF SPEECH-LANGUAGE THERAPIST AND
AUDIOLOGIST

List of Departments at Universities

University of Cape Town

Division of Communication Sciences and Disorders

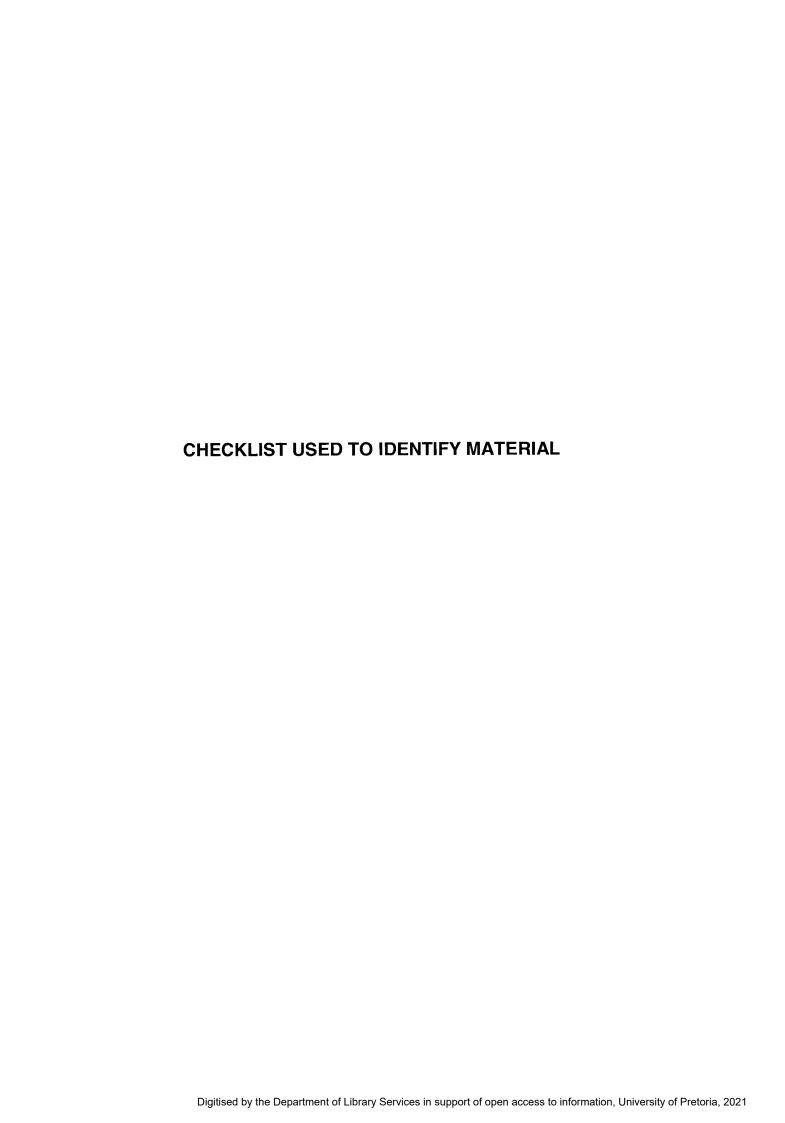
- University of Kwazulu-Natal (Durban-Westville)
 Department of Speech-language Pathology and Audiology
- University of Pretoria
 Department of Communication Pathology
- University of Witwatersrand
 Department of Speech and Hearing Therapy
- University of Limpopo (Medunsa)

Department of Speech Therapy and Audiology

• University of Stellenbosch

Department Interdissiplinere Gesondheidswetenskappe

APPENDIX B



Language											
Year of study	Disorder	Communication skills to be evaluated	Title of material		Author	Available format	University	Adapted/ translated/ developed	Adults /Children		
							=				
							v				