

**TRANSLATION EQUIVALENTS FOR HEALTH/MEDICAL TERMINOLOGY IN  
XITSONGA**

**By**

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**DEDICATION**

*To my son Nkateko Amukelani*

## **CONTENTS**

Dedication	ii
Declaration	vi
Acknowledgments	vii
List of Tables	viii
List of Figures	viii
Abstract	ix

## **CHAPTER 1- INTRODUCTION**

1.1 Background of the study	1
1.2 Statement of the problem	5
1.3 Objectives of the study	5
1.4 Delineation of thesis	6

## **CHAPTER 2 - LITERATURE REVIEW**

2.1 Introduction	7
2.2 Language for specific purposes (LSP)	8
2.3 Defining terminology	9
2.4 Terminology creation	10
2.4.1 Equivalence and non-equivalence	11
2.4.2 Translation gap	11
2.4.3 Term formation processes	12
2.5 Terminological standardisation	17
2.6 Conclusion	19

### **CHAPTER 3 - DATA COLLECTION, ANALYSIS AND INTERPRETATION**

3.1 Introduction	20
3.2 Research design	20
3.3 Sampling	20
3.4 Methods of data collection	21
3.4.1 Document analysis	21
3.4.2 Interviews	22
3.5 Methods of data analysis	22
3.5.1 Comparative analysis	22
3.5.2 Interpretation of findings	23

### **CHAPTER 4 - COMPARATIVE ANALYSIS OF TRANSLATION EQUIVALENTS**

4.1 Introduction	24
4.2 Comparative analysis	24
4.2.1 Summary of translation strategies	24
4.2.2 Frequencies and percentages	27
4.2.3 Comparison of translation strategies	28
4.2.3.1 Paraphrase	28
4.2.3.2 Borrowing	29
4.2.3.2.1 Direct loan	29
4.2.3.2.2 Transliteration	30
4.2.3.3 Compounding	30
4.2.3.4 Semantic extension	30
4.2.3.5 A more general word	31
4.2.4 Comparative analysis of translation strategies	31
4.3 Summary of findings	35
4.4 Conclusion	37

## **CHAPTER 5 - CONCLUSION AND RECOMMENDATIONS**

5.1 Introduction	40
5.2 Inferences	40
5.3 Recommendations	42
5.3.1 DSAC <i>Multilingual Glossary of Medical/Health Terminology</i>	42
5.3.2 Collaboration on terminology development	43
5.3.3 Language policy on the training of health professionals	44
5.4 Limitations of the study	45
5.5 Conclusion	45
<b>REFERENCES</b>	47
Appendix A: Request letter	50
Appendix B: Term list	51

**DECLARATION**

Student No. 99310432

I.....declare that the content of this mini-dissertation is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

Signature:.....

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Finally, to God the Creator of languages who restored communication with himself and eternity. I hope that this project would lead to the further enhancement of Xitsonga and that in the near future a complete vocabulary of Xitsonga in the medical field would be built, so that the Vatsonga are able to use their language in the medical field.

## LIST OF TABLES

Table 1: Summary of translation strategies	25
Table 2: Frequencies and percentages of term-formation strategies	27

## LIST OF FIGURES

Figure 1: Comparison of term formation strategies as used by DSAC and health specialists	38
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## ABSTRACT

A comparative study of translation equivalents for health/medical terminology in Xitsonga was conducted. The research involved studying a selection of terms from a glossary (the DSAC *Multilingual Glossary of Medical/Health Terminology*) compiled by language experts. Purposive sampling was used, resulting in the identification of 33 problematic source language (English) terms. Semi-structured interviews were then conducted during which health experts were asked to provide Xitsonga equivalents for the selected English terms from the glossary. The translation equivalents provided in the DSAC *Multilingual Glossary of Medical/Health Terminology* and those given by the health experts were then subjected to evaluation, followed by comparative analysis by the researcher.

The analysis indicates that the DSAC *Multilingual Glossary of Medical/Health Terminology* applied a variety of term formation strategies in accordance with the term formation principles available to Xitsonga. The most frequently used strategy, in 40% of the cases, was translation by making use of a more general word, whilst paraphrasing was the second most frequently applied term formation strategy (32,5%). A number of source language (English) terms was found to be provided with inappropriate/incorrect target language equivalents.

The health experts, on the other hand, mainly used paraphrase as a translation strategy, i.e. in 62,5% of the cases. The use of a more general word was the second most frequently applied term formation strategy (in 28,1% of cases). Although not similar to the DSAC *Multilingual Glossary of Medical/Health Terminology* translation equivalents, health experts also managed to apply a variety of different term formation strategies available to Xitsonga.

Unlike the DSAC *Multilingual Glossary of Medical/Health Terminology* list in which a number of English terms (13 out of the total of 33 selected source language terms) were not provided with Xitsonga translation equivalents, the

health experts provided Xitsonga equivalents for all the terms, except for one term (keratectomy).

The reason why the health/medical experts used paraphrasing extensively may be that a single term equivalent did not exist or was not known, due to inadequate availability of standardised terms. However, the health experts also clearly felt the need for providing users with an explanation that could be used for communicative purposes, e.g. between medical staff and patients. Moreover, when developing terms (outside of the context of a particular translation task) it is highly probable that term developers would rather opt for maximising transparency and comprehensibility, than putting in an effort to coin a term that can be used as a so-called 'directly insertable translation equivalent'.

The implications of the research findings are discussed, with one main finding of the study suggesting a need for a collaborative effort in terminology development.

## CHAPTER 1

### INTRODUCTION

#### 1.1 Background of the study

The new constitution of the South African government and the new language policy has adopted official multilingualism. Translation has a pivotal role to play in the language policy, which ensures democratic language rights at all government levels as well as in social, educational and economic institutions. According to the new language policy, all official government documents, which are in most cases written in English and Afrikaans, should be made accessible in the various official languages (Madiba, 1997: 63).

In their official report the Language Task Group (LANGTAG, 1996) recommended that important government documents should be translated into all the official languages, since this has an important bearing on the enhancement of their status. Other objectives stated in the report are the development of orthography and spelling systems, vocabulary elaboration and modernisation, the creation of technical registers, and the elevation of the status of the African languages.

To facilitate these processes the development of manuals on word-formation and style should be treated as a priority. This gives rise to new demands in terms of creation and translation of documents for high-function or official use in the nine African languages, and terminology creation forms an important part of this process.

A number of official government documents, for example, the new constitution and the South African Reserve Bank Governor's Address to Shareholders have been translated from English into Afrikaans and other official languages. There is also a large number of information brochures translated from English into the

many African languages including Xitsonga. Among these are the National Department of Health's brochures on key issues of HIV/AIDS, like those published as part of the Beyond Awareness Campaign and the Khomanani Campaign.

However, not all of these texts have been translated into Xitsonga as well, and some of the translated texts or documents demonstrate a significant number of inadequacies regarding the use of terminology (Madiba, 1997:63). The Department of Sports, Arts and Culture (DSAC) of the Limpopo Province has taken up the challenge, and its Language Services Section has compiled a multilingual glossary in five dominant languages of the Province, i.e. *A Multilingual Glossary of Medical/Health Terminology*.

In this study the focus is set on this particular list, namely the terminology list for Health/Medical terms, which was launched in May 2003. The study is of a qualitative nature, making use of document analysis and semi-structured interviews as methods of data collection. The study makes use of comparative analysis of the data obtained using these methods.

According to the mother-tongue intuition of the researcher, not all of the Xitsonga translation equivalents in the DSAC glossary are appropriate, for example

English	Xitsonga	Meaning of Xitsonga term
abdomen	<i>byeke</i>	'stomach'
antibody	<i>xilwa-na-mavabyi</i>	'a disease fighter'
depression	<i>dipirexini/ ku tikeriwa ka miehleketo</i>	'heaviness in the mind'
high blood pressure	<i>ntshikeleleko/nsusumeto lowukulu wa ngati</i>	'pressure/hard pushing of blood'
pain killer	<i>xihuhwati xa ku vava</i>	'that plays with pain'
phlegm	<i>phika</i>	'asthma'
skeleton	<i>nkongotlo/xikeletoni</i>	'spine/skeleton'

Some of these translation equivalents are inappropriate, for example, *xikhohlola* 'that which is coughed' for 'phlegm' would be more appropriate than *phika*, of which the equivalent in English is 'asthma'. Another term is abdomen, for which the commonly used term in Xitsonga is *khwiri* 'stomach', rather than the term *byeke* 'lower part of the stomach', given by DSAC.

For certain English terms no translation equivalents in Xitsonga are provided, for example:

excretion

keratectomy

laboratory

medical

meningitis

nervous disturbance

stroke

threadworm

waiting room

wheelchair

xenodiagnosis

yaws

The reason why the list of Medical/Health terms has been selected as a focus is because of the devastating effects that miscommunication of health information has on South African health providers and health consumers (the community). Progress in the reduction and curing of infections is heavily dependent on the communication of information. It is important that awareness messages reach every person who is at risk in the language the people understand best, which usually is the mother-tongue.

However, this communication is strongly impeded by difficulties caused by a lack of (standardised) terminologies, and the lack of standardisation may have an

impact on the accuracy of information transfer. As there are no other sources from which information can be obtained (these terms do not occur in general language dictionaries) the accuracy and adequacy of the *DSAC Multilingual Glossary of Medical/Health Terminology* is of the utmost importance. Academic research can contribute to the improvement of the quality of the list.

The literature review conducted for this study highlights the most significant problems surrounding special-field terminologies for the African languages (cf. Madiba, 1997; Mtintsilana & Morris, 1988). These include the lack of sufficient terminology to name the concepts of the subject field (for which fully developed languages have terms), lack of relevant materials, such as specialist dictionaries, glossaries, post-literacy reading materials, popular magazines, and scarcity of well-trained technical experts such as terminographers and terminologists. Solving the problem of terminology in some of the African languages would involve the creation of new terminologies, the collection, codification and standardisation of existing terms and their distribution or dissemination to target speakers (Madiba, 1997: 64-65).

It must, however, be emphasised that the African languages are not inherently inadequate for the expression of technical concepts. All human languages possess the inherent potential to express any concept that can be thought of. However, in cases where languages have not had the opportunity to lexicalise these concepts and to standardise existing terms, problems are encountered. These problems are compounded by the lack of specialised dictionaries, and the fact that certain registers might be unknown to some speakers. This situation is regrettable when compared to Afrikaans, which has about 250 technical dictionaries and terminology lists (Madiba, 1997: 68).

## 1.2 Statement of the problem

The problems that gave rise to, and motivated the study can be summarized as follows:

- Certain translation equivalents in the *DSAC Multilingual Glossary of Medical/Health Terminology* are problematic in terms of the word-formation strategies applied. Some of the SL equivalents in the *DSAC Multilingual Glossary of Medical/Health Terminology* are inappropriate or uncommon for mother-tongue speakers of Xitsonga.
- Some of the terms in the *DSAC Multilingual Glossary of Medical/Health Terminology* have not been provided with equivalents at all. The English term is simply followed by a blank space. In other words, gaps have been left in the DSAC glossary in the case of some of the terms.

## 1.3 Objectives of the study

Against the backdrop of the scenario outlined above, the following objectives were formulated for the research:

- To identify problematic translation equivalents and lexical gaps in the *DSAC Multilingual Glossary of Medical/Health Terminology*.
- To ascertain whether mother-tongue Xitsonga-speaking experts in the field of health share the researcher's reservations in terms of the appropriateness of certain translation equivalents.
- On the basis of a comparison between the translation (term-formation) strategies used in the DSAC glossary and the equivalents suggested by the experts, to establish the most frequently used translation (term-formation) strategies in the DSAC list, and the most frequently used strategies by the health experts; as well as to identify possible reasons for the inappropriateness of the DSAC translation equivalents.

#### **1.4 Delineation of thesis**

Chapter 2 reviews relevant literature on terminology and term formation processes, as well as on equivalence relationships in translation. The chapter focuses on strategies used in forming new terms in the African languages, and in particular Xitsonga. In chapter 3 the research methods used in the study are described. A qualitative research method was used, namely semi-structured interviews on medical/health terms with health professionals on their translation strategies. Chapter 4 discusses the findings of the study; and chapter 5 provides conclusive inferences as well recommendations based on the findings of the study.



## CHAPTER 2

### LITERATURE REVIEW

#### 2.1 Introduction

Languages enlarge their vocabularies in order to deal with new objects and ideas. For the development of terminologies, languages form terms by applying universal strategies such as borrowing, transliteration, etc. to expand their vocabularies. However, the rules according to which these strategies are applied are language-specific.

This section gives an overview of the general literature on the nature of terminology, strategies of term formation/creation and the theoretical basis of terminology; as well as on term-formation strategies that are specific to the African languages. Since most multilingual lists depart from a source language with a well-established terminology, such as English, the process of finding terms for the target language(s) is often a *translation* process, rather than a process of *coining* terms by directly attaching lexicalisations to subject-field concepts.

However, in terminographic practice these processes often coincide. This can be explained as follows: whether a term in a target language (Xitsonga) is coined as the result of directly naming a concept in a subject-field such as health (primary term-formation), or whether an equivalent term in Xitsonga for an existing term in a source language (English) is coined (secondary term-formation), the linguistic process of term-formation or coining is identical. New terms in the target language (Xitsonga) have to make use of the available linguistic mechanisms, which are partially universal (e.g. through metaphoric transfer, compounding, paraphrase), and partially language-specific as the terminologist has to make use of existing lexical items (words, morphemes) in Xitsonga as the "raw material". The only exception is direct loan, in the case of which the target

language does not contribute to any aspect of the term formation. Following from this exposition the focus in this mini-dissertation will be on term-formation processes, keeping in mind that in the case of a multilingual list such as the DSAC glossary, the process comprises of secondary term formation, which then entails translation by making use of term-formation strategies.

## **2.2 Language for specific purposes (LSP)**

People behave and speak differently in different situations. The type of knowledge they have accounts for the way they refer to objects, depending on the context and the situation in which they find themselves. The type of activity or the level of formality controls the language behaviour used by speakers. Baker (1992: 286) calls this a language register, which refers to a variety of a language that a language user considers appropriate to a specific situation.

Sager (1990) distinguishes between two language registers, namely: language for general purposes and language for specific purposes. Language for specific purposes is used in specialised contexts, usually between experts during communication about a specific subject field. Language for general purposes on the other hand, is the language used every day during general communication between people from diverse backgrounds.

On language for special purposes, Pearson (1998: 36) says that doctors/physicians use amongst themselves terms that are unlikely to be understood by ordinary speakers of a language; they use technical language, with a restricted vocabulary. She does, however, maintain that since many terms describing the symptoms and treatment of diseases 'have seeped into general language as a result of media coverage of the subject; people use medical related terms in ordinary language' as if they really understand the precise meaning of these terms.

Terms such as *AIDS* and *drop* (a sexually transmitted disease properly called gonorrhoea) have penetrated into the general vocabulary of many African languages, including Xitsonga. Wider access to news media, mass media such as health information documents and the new participatory/empowerment approach in health promotional practices might be a contributing factor on the penetration of LSP into general language. Lankamp (1988: 29) agrees that these terms (*AIDS* and *drop*) are for some reason more familiar, 'although such familiarity need not include thorough knowledge of the medical concepts involved'. It is thus clear that experts of different subject-fields use terms that have a specific meaning to them.

The restricted register in this study is that of health/medical terminology. For people to have control over a disease, they need to have an understanding of terminology associated with it. Therefore, the vehicle to disseminate knowledge to the layperson is to provide quick and unambiguous access to concepts by using effective terminology development strategies such as the provision of accurate and accessible term lists in Xitsonga.

These can be achieved by standardization, in order to eliminate ambiguity, vagueness and confusion among health professionals who have to convey health information directly to the public as well as via the popular and mass media. Another fact is that general language dictionaries include the technical terms that have penetrated into the general language and are used with a fairly high frequency. That will be the case with terms for HIV/AIDS related concepts, concepts related to TB, STD's, breast cancer, malaria, etc.

### **2.3 Defining terminology**

According to Sager (1990: 63) terminology is formed by a collection of terms within a particular domain. Cabre (1999: 32) defines terminology as the principal and conceptual base that governs the study of terms, the guidelines used in

terminographic work or its methodology as well as the set of terms of a special study and of a specific topic.

From the preceding paragraph it is clear that terminology is always linked to a specific subject field. Another similar definition of terminology is that of Sager (1990: 2) that terminology is the study and the field of activity concerned with the creation, collection, description, processing, and presentation of terms belonging to a specialised area of usage of one or more languages. In this regard terminology work is concerned with the systematic collection, description, processing and presentation of concepts and their designations.

For the purpose of this study, the term ‘terminology’ refers to a set of terms related to a specific topic of Health/Medical terminology, as indicated in the *DSAC Multilingual Glossary of Medical/Health Terminology*.

## **2.4 Terminology creation**

When translating into and out of Xitsonga, translators are confronted with terminographical problems such as a lack of equivalent terms in the target language. In addition to this, Baker (1992: 18) explains that the choice of a suitable equivalent does not always depend on the linguistic system or systems being handled. It also depends on the way both the writer of the source text and the translator of that source text into the target text choose to manipulate the linguistic systems in question. As such, there is still a substantial task/job to be done in relation to language development in Xitsonga. There are challenges of providing equivalents for source language terminologies.

#### **2.4.1 Equivalence and non-equivalence**

According to Richards, Platt and Weber (1985: 299) translation equivalence is “the degree of which linguistic units can be translated into another language without loss of meaning.” Thus, direct equivalence occurs where the relation of the equivalent term transports the meaning of the original term in the target language like that of the original term. In other words, it is the reproducing of the closest natural equivalent of the source language term in the target language equivalence with a very close similarity in meaning, as opposed to similarity in form (Nida & Taber (1974: 13; 200).

There are some common types of translation equivalents that often pose difficulties for the translator. For instance, when there is no term that directly refers to a source language term, the target language term is mechanically reproduced with the distortion of grammatical and stylistic patterns. As a result, the formal meaning of the source terms is lost in the process of forming a new term in another language (Nida & Taber, 1974: 200). This type of translation difficulty is referred to by Baker (1992: 21-22) as non-equivalence at word level; a target language has no direct equivalence for a word which occurs in the source text.

#### **2.4.2 Translation gap**

In the supplying of equivalent terms, the term creators are sometimes faced with a lack of cohesion in the target and source languages. This is referred to as a referential gap because the relationship between two words, actions or things do not relate semantically. There are cases where there is an absence of a term in a particular place in a lexical field of a language, and this is referred to as a lexical gap (Richards, Platt & Weber 1995: 164).

According to Mphahlele (2004: 341), lack of equivalence in the target language entails zero equivalence; he further says that the absence of translation equivalence usually indicates the existence of a lexical gap in the target language.

The translation gaps might be experienced because of the following common problems of non-equivalence as identified by Baker (1992: 21-25): cultural-specific concepts; the source language concept is not lexicalised in the target language; the source-language word is semantically complex; the source and target languages make different distinctions in meaning; the target language lacks a superordinate; the target language lacks a specific term (hyponym); differences in physical or interpersonal perspective; difference in expressive meaning; difference in form; difference in frequency and purpose of using specific forms; and the use of a loan word in the source text.

According to Cluver (1989: 70) term-formation is a rule-governed process according to which roots and stems are combined with other roots, stems or affixes to form new words. Mtintsilana & Morris (1988: 110) indicate that languages develop terminologies through term formation processes that are internal to the language; that is, by using materials within the language itself and through external term formation strategies, i.e. borrowing from other languages. Sager (1990: 71) agrees that the creation of new designations is achieved by using existing resources, modifying existing resources and by the creation of new linguistic entities.

### **2.4.3 Term-formation processes**

According to Cabre (1999) term formation strategies are universal, however to be discussed below are term formation processes in the African languages, identified by Mtintsilana & Morris (1988: 110-112).

## Semantic extension

Semantic extension is a process of attaching a new meaning to an existing word by modifying its semantic content. This is where the existing word and the new term are used side by side, one in ordinary speech and the other as a term in a special field (Sager, 1990: 71).

In the creation of new terminologies, the most common form of semantic transfer is semantic specialisation where a word from the general vocabulary acquires a more technical meaning (Gauton, Taljard & De Schryver, 2003: 86). The meaning is narrowed down and become more specialized. The opposite of semantic specialisation is the semantic generalisation whereby the meaning of a word is extended or transferred from its original meaning. For example,

English	Xitsonga	meaning of Xitsonga term
incubator	<i>bodhlela</i>	'bottle'

In this strategy, the common word 'bottle' extends its general meaning and embraces a new concept which was at first not imagined when the word was created (Sager, 1990: 71).

Madiba (2000: 205) states that foreign concepts are designated by transferring the meaning of the terms already known to the speaker; and states that the transfer may be on the basis of analogy. This is further explained by Sager (1990: 71) that a new term may be given in an analogy with existing designations and meanings that may be transferred by such rhetorical figures as metaphor.

## Paraphrase

Paraphrase is another productive way of extending vocabulary in indigenous languages. When term developers are confronted with new concepts which they

are unable to express with other term formation strategies, they resort to paraphrasing (Madiba, 2000: 219)

The terms below are examples of paraphrases:

English	Xitsonga	meaning of Xitsonga term
gynaecologist	<i>dokodela wa va vasati</i>	"a doctor for women"
diabetes	<i>Vuvabyi bya chukela</i>	"a disease of sugar"
foetus	<i>n'wana loyi a nga si velekiwaka</i>	"a child that is not yet born"

Explanations are typically given when there is a lack of an equivalent term in the target language, although this method is criticized for giving rise to long terms. But according to Madiba (2000: 220), it is a productive way of engineering knowledge and to easily describe foreign concepts.

## Compounding

Compounding is a term-formation process whereby two or more free morphemes are combined to form a new term. According to Mtintsilana & Morris (1988: 110) and Sager (1990: 76-77) compounding is a word-forming process whereby a new single term is coined/formed by combining existing words or independent terms.

According to Madiba (2000: 214-215), compounding is another productive term formation strategy that has been used in most languages of the world. The term compound has been defined in various ways in literature; however, the important requirement in terminology is that the new entity created must represent the original concept.

Examples of compounding are found in a term such as:

English	Xitsonga	Meaning of Xitsonga term
antibody	<i>xilwa-ni-vuvabyi</i>	'disease fighter'



## Deideophonisation

Deideophonisation takes place when a term is formed by adding a prefix to the ideophone (an object is given a name according to its sound, however, not all ideophones always indicate/imitate sounds) (Mtintsilana & Morris, 1988: 110). An example of deideophonisation is the Xitsonga for *gun*, namely *xibamu*. The class 7 prefix *xi-* often refers to an object or a substance. Therefore, *xibamu* means 'an object that *bams*' It follows that a rocket is termed *xibam-bam*, because of the sound that it makes on taking off. Other examples in this regard are those of *phlegm* and *sputum*, which are similarly translated in Xitsonga, as *xikhohlola*, which is a deverbative formed by affixing the class 7 prefix *xi-* to the verb stem *-khohlola* 'cough'. This verb stem is derived from the ideophone *khohlo* which indicates the sound from coughing. Thus, *xikhohlola* refers to "a substance or product resulting from the sound of a cough".

## Borrowing

A major source of new terminology in the African languages is borrowing from English and Afrikaans (Mtintsilana & Morris, 1988: 111). There are different types of borrowing when forming new terms, of which direct loan, hybridization and transliteration/indirect loan will be discussed below.

### Direct loan

Direct loan of terms involves taking over a source language term into the target language without changing its morphological structure. Therefore, the term is taken over as is from the source language (Sager, 1990: 90). A loan word therefore retains its spelling and this is resorted to when the target language has no equivalent for source language units. For example:

English	Xitsonga
wheelchair	'wheelchair'

## Hybridisation

In addition to its borrowing from other languages including English and Afrikaans, the African languages often use prefixing as a strategy of word-formation, whereby new lexemes are formed through adding an affix to an existing stem or root. Lexemes like these are called 'morphologically hybrid forms' (Cluver: 1989: 78), as indicated below.

English	Xitsonga
asthma	<i>asima</i>

## Transliteration

Over and above the term creation processes discussed above, transliteration occurs frequently in Xitsonga. It is actually one of the most frequently used methods for creating Xitsonga translation equivalents for English and Afrikaans terms, particularly in a subject such as Medicine. Indirect loan or loan translation is described by Sager (1990:90) as the taking over of the term from another language but adjusting its pronunciation, spelling and morphological characteristics. Compare the following examples:

English	Xitsonga	Meaning of Xitsonga term
stroke	<i>xitroku</i>	'stroke'
high blood pressure	<i>mahayihayi</i>	'high high'

Mtintsilana & Morris (1988: 111) caution that although transliteration seems to be the most productive method of developing terminology, a language may run a risk of losing its character if it allows transliteration to fill lexical gaps. Transliteration should therefore perhaps not be used as a shortcut or first aid, but rather as a last resort, for instance in the fields of medicine and the natural sciences. Moreover, Mphahlele (2004: 341-342) states that transliteration is not necessarily the best solution and that it is a mere duplication of a source

language term. Thus, transliteration should not be regarded as a first, but as the last solution, after all measures have failed. According to Carstens (1998) where all measures for supplying term equivalents have failed, creating new linguistic entities should take the following into consideration: transparency; internationalism; conventions within the subject field; systematicity and formal economy.

## 2.5 Terminological standardisation

The main concern of terminology is acceptance and standardisation of the newly formed terms. Terminology work entails finding, creating and standardising a system of concepts for a special field. It is therefore incomplete unless standardisation processes are completed (Felber, 1981: 72).

Very little attention has been paid to the study of standardisation of Xitsonga terminologies as well as the problems associated with such an undertaking. The focus has been mainly on the collection and classification of data from the point of view of grammar. The conversion of Xitsonga into a written language is indebted to the missionaries of the Swiss Mission in South Africa. To cater for the development of Xitsonga language committees and language boards were established, and this resulted in terminology lists which were published and updated from time to time. The last list, *Tsonga Terminology and Orthography*, was published in 1980 (Mathumba, 1999: 40).

Until 1994, terminology standardisation in South Africa was in the hands of the ten language boards, of which nine were for the African languages. All new terms which, were relatively small in number, were to be submitted to the National Language Bodies (NLBs) for approval (Mtintsilana & Morris, 1988: 109-110). In 1995, PanSALB, which is a statutory body, was established to oversee the process of the development and promotion of South African languages. In the process of addressing language development problems, advisory bodies

have been established. The Provincial Language Committees (PLCs) are taking care of all 11 official languages - plus Sign Language; Heritage and Khoe & San languages in the various provinces. For instance, the PLC in the Limpopo Province is taking care of Xitsonga, since the majority of Xitsonga speakers live in the Limpopo Province.

NLBs - for all 11 official languages plus Sign; Heritage and Khoe & San languages - provide advice to PanSALB on matters affecting a particular language. This includes issues relating to the development, promotion and maintenance of the particular language; spelling, orthography and language standards; terminology development; and dictionaries and literature of each of the languages (Alberts, 2003: 41-42).

Terminology standardisation is a complicated procedure carried out in committees. PanSALB and the NLBs are, according to Alberts (2003: 43), “the legal authority on all terminology development in South Africa” and give assistance to the Department of Arts and Culture (DAC) in the coining and standardisation of term equivalents.

One of the most important duties of NLBs’ as authorising agents is to determine and document the word-formation principles in each of the eleven languages. The standardised terms are disseminated to all PanSALB structures and to government departments at all levels - that is at provincial and national levels.

Standardisation of terminology is an urgent need, both in old fields, where the language has grown, and in new disciplines, where words spring up daily and are becoming highly complicated resulting in growing communication difficulty. In solving the problem of health/medical terminology, the researcher suggests that terminology planning needs to be established in order for Xitsonga to grow and develop in all levels of professional communication.

## 2.6 Conclusion

Amongst the priorities of the South African government is the promotion and development of the previously and currently marginalised languages, including Xitsonga (National Language Policy Framework, 2003). One of the ways in which Xitsonga can be promoted is by assuring that it takes its place alongside the other ten languages in official and public documents. However, according to Madiba (1997), translating into the African languages is complicated by problems such as lack of reference sources such as dictionaries, glossaries and terminology lists (Madiba, 1997).

Because of the lack of translation equivalents for many English terms in languages such as Xitsonga (lexical gaps) terminologists and translators are faced with the task of developing new terms, which require thorough knowledge of the target language and of the subject field (e.g. health) as well as knowledge of equivalence relationships and term formation processes. The complexity of the task is further complicated by the fact that linguists and terminologists have only recently started to study the nature and systematics of term-formation processes in the African languages.

## **CHAPTER 3**

### **DATA COLLECTION, ANALYSIS AND INTERPRETATION**

#### **3.1 Introduction**

As stated previously, there is a general lack/scarcity of African language equivalents (Xitsonga equivalents in particular) for special field terms in English. In order to describe and understand the problem in all its complexity it was decided to use a qualitative research design. Qualitative research methods have the advantage that they yield rich, in-depth data on the phenomenon under scrutiny.

#### **3.2 Research design**

As already mentioned the study was conducted within a qualitative framework. It involves the critical evaluation of Xitsonga translation equivalents selected from the *DSAC Multilingual Glossary of Medical/Health Terminology*, and comparison with data collected from the health specialists on the same terms.

Thus, the form of enquiry is descriptive and evaluative, but also explorative in that it attempts to describe the basic understanding of Medical/Health concepts by mother-tongue speakers of Xitsonga.

#### **3.3 Sampling**

The *DSAC Multilingual Glossary of Medical/Health Terminology* was used as a starting point for gathering data. Firstly, purposive sampling (based on introspection) was used to identify problematic translation equivalents. That means that a selection of problematic terms was made, depending on the researcher's own judgement.

A convenience/deliberate sampling-selection of subjects with particular characteristics (Baumgartner & Strong, 1998) was used to select participants in the Polokwane area. The practical advantage of this kind of sampling is that it allows a simple procedure for determining translation equivalents by elicitation of judgements of native-speakers who are conversant in the relevant medical field (Babbie, 1995:225)

Participants had to meet the following criteria to qualify for inclusion in the sample:

- professionals involved in the health field (3 medical doctors and 3 nurses; thus 6 participants in total);
- speaking Xitsonga as their first language.

### **3.4 Methods of data collection**

#### **3.4.1 Document analysis**

In the case of this study the processes of sampling and data collection coincided to a large extent since purposive sampling in this case was done on the basis of document analysis. In document analysis the researcher's task is to check, understand and interpret existing documents. A substantial amount of research has been done on document analysis, which includes advertisement analysis, comparison of advertisements in publications, as well as the analysis of propaganda, such as in newspaper reports (Babbie, 1995: 307).

Bureaucratic agencies, such as Government, produce information that can provide useful data for document analysis (Baumgartner & Strong, 1998). In the case of the present study only one document on health terminology in Xitsonga could be located, namely the *DSAC Multilingual Glossary of Medical/Health Terminology*. The data collection resulted in a restricted corpus comprising 33

English terms and their translation equivalents in Xitsonga, where such equivalents were provided.

### **3.4.2 Interviews**

Semi-structured interviews were conducted with the selected participants. The researcher requested participants to give the equivalent of the 33 selected terms from the DSAC *Multilingual Glossary of Health/Medical Terminology* in Xitsonga.

The semi-structured interviews were considered suitable for the study because they are semi-directive and respondents are active participants whose insights and co-operation are essential parts of a discussion process that reveals subjective and expert meanings (Newman, 1997: 156).

In order to ensure that no ethical issues were violated and that informed consent was obtained (see Appendix A), verbal and/or written consent was requested from the participants. The following information was indicated:

- Request for assistance with participation in the study.
- An explanation as to why the research is conducted.
- Maintenance of anonymity and confidentiality of participants to ensure privacy.

## **3.5 Methods of data analysis**

### **3.5.1 Comparative analysis**

The purpose of the data analysis was to investigate whether the Xitsonga translation equivalents provided are sufficient by comparing them with the translation equivalents suggested by the health workers.

There are several possibilities of comparative analysis. The corpus of comparative analysis in the proposed study comprises of one source text with



various translations in the target language (Kruger & Wallmach, 1997). A comparative analysis was conducted to evaluate the equivalence of the translation equivalents provided by the DSAC *Multilingual Glossary on Medical/Health Terminology* and those provided by the Xitsonga speaking subject field experts.

The findings and conclusion, explaining the importance of the study and/or the evaluation of the contribution follow this chapter, as well as suggestions for further research. The analysis focuses on the translation methods, reviewing various translation strategies used to find the translation equivalent for the English term. The focus was also on the analysis of issues in translation such as coining, transliteration, meaning transfer, borrowing, *etc.*

### **3.5.2 Interpretation of findings**

All the information gathered was categorised, e.g. according to the term-formation strategies followed, including lexical gaps, i.e. where the DSAC translators and/or health/medical experts did not provide a translation equivalent for the SL term. The results were then compared with the problems that were noted in the literature on term-creation, especially in the African languages/Xitsonga. Remedies are suggested with regard to the *DSAC Multilingual Glossary of Medical/Health Terminology*.

## CHAPTER 4

### COMPARATIVE ANALYSIS OF TRANSLATION STRATEGIES

#### 4.1 Introduction

This chapter discusses the findings of the study obtained by means of a comparative analysis of the Xitsonga translation equivalents provided in the *DSAC Multilingual Glossary of Health/Medical Terminology* and those suggested by the Xitsonga speaking subject field experts. The analysis focuses on the term formation processes, methods or strategies used in the *DSAC Multilingual Glossary of Medical/Health Terminology* as well as by experts.

#### 4.2 Comparative Analysis

##### 4.2.1 Summary of translation strategies

A comparative analysis of the strategies used in the translation of terms is indicated in a table format. The blank spaces in the tables indicate that no translation equivalents for the English terms were provided.

Table 1 lists all the sampled terms from the DSAC glossary, and provides a summary of the term formation strategies used by the health/medical experts and the *DSAC Multilingual Glossary of Medical/Health Terminology*. It can be seen from the table that health/medical experts mainly used paraphrasing as a strategy. This could be based on the goal of health/medical experts to communicate as clearly and unambiguously as possible with their patients/clients. It can also be seen from the table that the *DSAC Multilingual Glossary of Medical/Health Terminology* left many of the terms blank as

compared to medical/health experts, although other term formation strategies identified by Mtintsilana & Morris (1994) and as discussed in chapter 2 were applied.

**Table 1: Summary of translation strategies**

English term	Translation equivalent: DSAC	Term-formation strategy	Translation equivalent: health experts	Term-formation strategy
abdomen	byeke 'lower part of stomach'	use of more general word	kwiri 'stomach'	use of more general word
adrenaline	adrenalini	transliteration	mati ya miri lawa ya vangelaka ku chuhwa 'body fluid that causes fear'; ku chuhwa 'to fear'	paraphrase
agility exercise	vutiolori 'exercise'	use of more general word	Ku tiolola ko vevuka 'light exercise'; ku fambafambisa swirho 'to move-move parts'; vutiolori 'exercise'	paraphrase
ailment	vuvabyi 'sickness'	use of more general word	Vuvabyi 'sickness'	use of more general word
antibody	xilwa-ni-vuvabyi 'disease fighter'	compounding	Masocha ya miri' soldiers of the body'; Mirhi leyi lwaka na switsongwatsongwana 'medicines that fight germs'	paraphrase
balance exercise	Xitoloveto xo ringanela 'exercise to balance'	paraphrase	Switoloveto swo ringanisela 'exercises to balance'	paraphrase
depression	ku tikeriwa ka miehleketo 'the heaviness in the mind'; diprexini	paraphrase & transliteration	ku tshoveka moya 'to be broken in spirit'; ku ka unga tsakangi emiehleketweni 'not being happy in the mind'	paraphrase
diabetes	vuvabyi bya chukela 'sickness of sugar'	Paraphrase	chukela 'sugar'	use of more general word
digestion	mpfuvelo 'mixing'	use of more general word	Ku gayela swakudya 'to digest food'	paraphrase
dropsy	dropisi; dropasi	transliteration	vuvabyi byo etlelana 'a disease of sleeping together'	paraphrase
embryo	xitumbulukwana 'a creature'	use of more general word	xiyimo xa n'wana loko aha tumbuluka 'the stage of a baby when still developing'	paraphrase
excretion	blank		tyaka ra ku humesa hi miri 'dirt excreted by the body'; ku huma 'to poop'	paraphrase & use of more general word
foetus	blank		n'wana la nga si velekiwaka 'a child that is not born yet'	paraphrase
gynaecologist	dokodela wa vaxisati 'the doctor of women'	paraphrase	dokodela ya vaxisati 'the doctor of women'	paraphrase
high blood pressure	nsusumeto lowukulu wa ngati 'big push of blood'	paraphrase	ngati leyi kulu 'blood that is high'; mahayihayi 'high-high'	paraphrase & transliteration
hybrid	mubasteri 'from Afr. 'baster', i.e. 'mongrel'	use of more general word	ku hlanganisiwa ka timbewu timbirhi toka ti nga fani 'mixing of two seeds that are different'	paraphrase

incubator	Xifukamerisi 'hatcher'; xibyamerisi 'hatcher'	use of more general word & semantic extension	Ndhawu ak u fumeta 'a place to warm'/ ndhawu yo veka n'wana ya vuongori 'a place to put a child for nursing'; bodhlela 'bottle'	paraphrase & semantic extension
keratectomy	Blank			Blank
laboratory	Blank		Laha va hlhluvelaka kona swilo swo fana ni ngati 'where they test things like blood'; ndhawu yo lavisisa switsongwatsongwani engatini 'a place of investigating viruses in the blood'	Paraphrase
medical	Blank		vuongori 'nursing'; vun'anga 'doctoring'	use of more general word
meningitis	Blank		vuvabyi bya byongo loko kuri na switsongwatsongwani 'sickness of the brain when there are viruses'; ku vaviseka ka nkuva wa byongo 'inflammation of the membrane of the brain'; vuvabyi byo afecta tilayers ta byongo 'a sickness that affects layers of the brain'	Paraphrase
nervous disturbance	Blank		ku vaviseka ka minsiha ak u fambisa miri 'injuries to nerves that make the body move'; vuvabyi bya nhloko 'sickness of the head'	Paraphrase
pain killer	xihuhwati xa ku vava 'a player of pain'	paraphrase	Murhi wa swivavi 'medicine for pain'	paraphrase
phlegm	phika 'asthma'	incorrect equivalent	Xikhohlola 'phlegm'; khuvi 'foam'	use of more general word
skeleton	nkongotlo 'back bone'; xikeletoni 'skeleton';	use of more general word & transliteration	Marhambu 'bones'	use of more general word
stroke	Blank		xitroku	transliteration
syringe	xithlaveti 'stabber'	use of more general word	Pulastiki yo teka ngati 'a plastic that draws blood'; nayiti 'needle'	paraphrase & use of more general word
tapeworm	nyoka ya le ndzeni 'snake of the inside'	paraphrase	manyokanyokani 'lots of small snakes'; manyokani lama kulu 'lots of big snakes'	use of more general word
threadworm	Blank		manyokanyokani lamantsongo 'lots of small tapeworms'	paraphrase
waiting room	Blank		ndhawu yo timela kona 'place of waiting'; rhumu yo rindzela eka yona 'room to wait at'; waiting room	paraphrase & direct loan
wheelchair	Blank		movha wo famba hi wona 'a car to walk with'; wheelchair	paraphrase & direct loan
xenodiagnosis	Blank		vuvabyi 'sickness'	use of more general word
yaws	Blank		vuvabyi byo karhi 'a kind of sickness'; vuvabyi bya yaws 'sickness of yaws'	paraphrase

Some of the terms in the above table have target language equivalents that appear in dictionaries and in the official terminology and orthography. However, it is clear that specifically the DSAC terminologists did not always consult such sources, which is the first step to follow when finding translation equivalents for terms. Note that the term ‘xenodiagnosis’ does not appear in the source language (English) as spelled in the DSAC list, but spelled as ‘zenodiagnosis’ in dictionaries of the source language. Other terms that have been left blank by both the DSAC terminologists and Health/medical specialists – without target language equivalents - are listed in the source language (English) dictionaries. Therefore, with some effort DSAC translators and Health/medical specialists could have given translation equivalents even if it meant using paraphrasing. This translation gap is further alluded to in section 4.2.4 below.

#### 4.2.2 Frequencies and percentages of term formation strategies

**Table 2: Frequencies and percentages of term formation strategies**

Translation/term formation strategy	DSAC		Medical/health experts	
	Frequency #	Percentage %	Frequency #	Percentage %
Transliteration	3	15%	1,5	4,7%
Use of a more general word	8	40%	9	28,1%
Paraphrase	6,5	32,5%	20	62,5%
Compounding	1	5%	0	0%
Semantic extension	0.5	2,5%	0.5	1,6%
Direct loan	0	0%	1	3.1%
Incorrect equivalent	1	5%	0	0%
Total	20	100%	32	100%

Table 2 above provides a description of the findings, listing the term-formation strategies that were applied and indicating their frequency of occurrence, in numbers (#) as well as in percentages (%). When determining the frequency (#)

of occurrence of the various strategies, the number of times each strategy was used was counted, and if **two strategies** were used as translation equivalents for **the same SL (English) term**, each strategy was counted as  $\frac{1}{2}$ . These numbers were then worked out as percentages of the total number of terms that were provided with translation equivalents – 20 SL terms in the case of the DSAC list and 32 SL terms in the Health/Medical experts' list. (The rest of the 33 SL terms that this study is based on were not provided with term equivalents by either the DSAC terminologists (13 SL terms left blank) or the Health/Medical Experts (1 SL term left blank)). The comparative analysis of the term formation strategies used by DSAC and Health/Medical experts are discussed below, using the illustrations in the two tables above.

### **4.2.3 Comparison of translation strategies**

#### **4.2.3.1 Paraphrase**

The findings in Table 2 above indicate that paraphrase was the second most frequently used term formation strategy in the DSAC list, in 32,5% of cases, and was the most frequently used term formation strategy by the health/medical specialists, in 62,5% of cases. The extensive use of paraphrase as a term formation strategy by the health/medical specialists could be ascribed to their need to explain terms in a very clear way to their patients. It can also be concluded that Health/medical specialists lack sophistication in terms of medical terminology in Xitsonga. On the other hand, DSAC shows specialist knowledge of Xitsonga medical terms.

When developers of terms are confronted with a new concept that cannot be readily/easily expressed in Xitsonga by means of any of the term formation strategies discussed in chapter two, they often resort to paraphrasing and in most of the cases this is in the form of a definition of the original English concept.

Furthermore, a high occurrence of paraphrasing as a term formation strategy probably also results when terms are being developed as such ('in isolation' so to speak), as opposed to the development/translation of terms with the primary objective of being used as translation equivalents that can be directly inserted into a target text that is being translated. When developing terms (outside of the context of a particular translation task) it is highly probable that term developers would rather opt for maximising transparency and comprehensibility, than putting in an effort to coin a term that can be used as a so-called 'directly insertable translation equivalent'.

#### **4.2.3.2 Borrowing**

Many types of borrowing are made from one language to another. This is a procedure often resorted to when the target language has no equivalent for the source language unit. The following types of borrowing or loaning were used to coin equivalent terms in Xitsonga, as indicated in Table 1 above.

##### **4.2.3.2.1 Direct loan**

Term formation strategy using direct loan was not applied in forming any of the 33 selected terms in the *DSAC Multilingual Glossary of Medical/Health Terminology*. On the other hand the health experts did seem to compensate for lexical gaps by making use of direct loan in 3.1% of cases (see Table 2). The health/medical specialists have taken over both the terms 'wheelchair' and 'waiting room' directly (without any adaptation) into the borrowing language (Xitsonga).

##### **4.2.3.2.2 Transliteration**

15% of terms from the *DSAC Multilingual Glossary of Medical/Health Terminology* in the data corpus have been translated using this term-formation

strategy, which entails borrowing the term, yet adapting it to the morphological and/or phonological structure of the borrowing language.

It can be seen from Table 1 above that the health/medical experts did not use transliteration/indirect loan for the translation of the terms that were transliterated in the *DSAC Multilingual Glossary of Medical/Health Terminology*, for example in the case of 'adrenalin'. However, this does not mean that the health experts did not provide equivalents for these terms.

#### **4.2.3.3 Compounding**

Every language has methods of expanding its vocabulary from an existing stock, in addition to borrowing from other languages. This is the case with compounding as a translation strategy, which is a process whereby two (usually) independent elements or bases are joined to form a new element. As indicated in table 1 above, the term *xilwa-ni-vuvabyi* 'that which fights with/against sickness' is a fusion of words. The prefix of noun class 7 *xi-* has been affixed to the verb stem *-lwa* 'fight' and linked with hyphens to the conjunctive *ni* 'with/against' and the class 14 noun *vuvabyi* 'sickness'. The term *xilwa-ni-vuvabyi* 'antibody' (lit. 'that which fights with/against sickness') is a new term formed by combining two independent words to create a new compound that function as a single word. The compounding term formation strategy has been used in the DSAC list only.

#### **4.2.3.4 Semantic extension**

Semantic extension as a term formation strategy has been applied by both the DSAC terminologists and the health/medical experts to one term only, namely 'incubator'. The DSAC terminologists provided a more general target language equivalent where the term 'incubator' was translated as *xifukamerisi* 'hatcher' / *xibyamerisi* 'hatcher' by referring to its function, that of "hatching eggs/breeding things". The use of this translation equivalent can also be regarded as a form of



semantic extension, as the original meaning of *xifukamerisi* / *xibyamerisi* 'hatcher' has been extended to also include the meaning of 'incubator'.

It is clear from the equivalent term supplied by health/medical specialists that semantic extension has been used (see Table 1) as a term-formation strategy. A new meaning has been attached to an existing term by modifying the semantic content of the term. The health experts metaphorically transferred *bodhlela* 'bottle' to create a new term. In this case the word *bodhlela* 'bottle' had embraced a new concept, that is, a concept used for another closely related concept, namely an 'incubator' which can be defined as "an enclosed transparent apparatus for housing pre-maturely born babies". From the foregoing, it has been observed that extension of meaning is not very productive in forming Xitsonga equivalent terms since it was only used in the case of one term out of 33 terms.

#### **4.2.3.5 A more general word**

The most frequently used term formation strategy in the *DSAC Multilingual Glossary of Medical/Health Terminology* is the use of a more general word. This strategy was used in 40% of cases. It was also the second most frequent term formation strategy applied by the health/medical experts, in 28,1% of cases.

#### **4.2.4 Comparative analysis of translation gaps**

Translation/lexical gaps result from a lack of direct equivalents for a source language term. Because of this, for almost half of the sample SL terms (13), no equivalents were given in the *DSAC Multilingual Glossary of Medical/Health Terminology*. The spaces have been left blank, and not even a direct loan strategy was applied as a term formation strategy for these 13 terms.

One of the translation gaps observed was in the case of the term 'xenodiagnosis'. The *DSAC Multilingual Glossary of Medical/Health Terminology*

did not provide any translation equivalent; and the specialists did not know the term. The health/medical specialists chose to substitute the term 'xenodiagnosis' with *diagnosis* and supplied an equivalent for *diagnosis* in stead. The reason given by the health experts in this regard is that they never use 'xenodiagnosis' and assumed that the term 'xenodiagnosis' in the *DSAC Multilingual Glossary of Medical/Health Terminology* has been mistakenly used for 'diagnosis', a term commonly used in health/medical setting as the process of identification of disease from its signs and symptoms (Dictionary of Scientific and Technical Terms, 1984: 176)

However, 'xenodiagnosis' is a term used in animal health, and this could have contributed to the Medical/Health Specialists who participated in the study failing to identify with the term, since they deal with human beings. Another complicating factor in this regard, is that 'xenodiagnosis' could not be found as an entry in Dictionary of Scientific and Technical Terms (1984). Only 'xenodiagnosis' could be found, which refers to "a procedure of using a suitable arthropod to transfer an infection agent from a patient to a susceptible laboratory animal" (Dictionary of Scientific and Technical Terms 1984: 1775). The two terms seem to have a similar meaning and hyponyms, but different spellings. It seems that only veterinary specialists, who are acquainted with the concepts of animal health, can identify with the terms.

The study observed that the translation of terms in the *DSAC Multilingual Glossary of Medical/Health Terminology* did not exhaust all the methods and translation strategies available as term formation principles. Consequently, some of the terms in the *DSAC Multilingual Glossary of Medical/Health Terminology* were not given Xitsonga translation equivalents.

There might be different possible reasons why so many source language terms were not translated in the DSAC list, while the health experts did provide equivalents for these terms (applying different term-formation strategies). An

example is the term ‘adrenaline’, that has been paraphrased by the health experts as *mati ya miri lawa ya vangelaka ku chuhwa*, its back translation being, ‘body fluid that causes fear’. Also in the cases below some of the health specialists were able to come up with equivalents for terms that had been left blank by the *DSAC Multilingual Glossary of Medical/Health Terminology*.

Example:	English	Xitsonga	Meaning of Xitsonga term
adrenalin		<i>ku chuha</i>	‘fear’
medical		<i>vutshunguri/vuongori</i>	‘medicinal/nursing’
tapeworm		<i>manyokanyokani</i>	‘lots of small snakes’;

There are many instances where borrowing could have been used to supply Xitsonga equivalents in the DSAC list. These terms were, however, left blank in the *Multilingual Glossary of Medical/Health Terminology*, whereas the health specialists provided the following translation equivalents:

Example:	English	Xitsonga	Meaning of Xitsonga term
	high blood	<i>mahayihayi</i>	‘high- high’
	stroke	<i>xtiroku</i>	‘stroke’
	waiting room	<i>waiting room</i>	
	wheelchair	<i>wheelchair</i>	

The researcher also suggests that instead of using a similar translation equivalent for tapeworm and threadworm, namely *manyokanyokani* ‘lots of small snakes’ and *manyokanyokani lamantsongo* ‘lots of small (snakes of) tapeworms’, *manyokanyokani ya swintambyani* ‘lots of small snakes of small thread’ should have been used for threadworm. This is based on the fact that the translation equivalent for thread in Xitsonga is *ntambhu*, and *swintabyani* in small size.

However, possible explanations for the many lexical (translation) gaps in the DSAC list (as far as Xitsonga is concerned), as opposed to the provision of equivalents or paraphrases by the health experts, may be one of the following:

- The compilers of the DSAC list could not find sufficient evidence of standardisation (in other words a measure of consensus among professionals) in the Xitsonga-speaking community.
- The health workers used as respondents for the study demonstrated desirability effects.

But even if the above statements contain some truth the *DSAC Multilingual Glossary of Medical/Health Terminology* could have adopted a pedagogical strategy by providing a paraphrase in Xitsonga. Paraphrases like this could then be marked by means of a special symbol to indicate that the "equivalent phrase" does not have an institutionalised or standardised status in the Xitsonga-speaking scientific community. Paraphrases such as those supplied by the health specialists below, serve as examples:

English	Xitsonga	Meaning of Xitsonga term
meningitis	<i>ku vaviseka ka nkuva wa byongo</i>	'inflammation of membrane of the brain'
laboratory	<i>laha ku kamberiwaka kona swilo</i>	'where things are tested'
foetus	<i>n'wana la nga si velekiwaka</i>	'a baby that is not yet born'
wheelchair	<i>movha wo famba hi wona</i>	'a car to walk with'

Another example illustrating how paraphrase could have been used in providing a translation equivalent for the following term instead of indirectly borrowing the terms from the source language as in the *DSAC Multilingual Glossary of Medical/Health Terminology*, is:

English	Xitsonga	Meaning of Xitsonga term
dropsy (drop/gonorrhoea)	<i>vuvabyi byo etlelana</i>	'a disease of sleeping together'

There has also been confusion regarding the term dropsy in the sense that health specialists stated that they did not know what the term meant and that they did not use such a term. Hence most of the health specialists chose to give translation equivalents for dropsy (as indicated above).

One of the problems of the treatment of the concept 'gonorrhoea' seems to be the choice of the English synonym that was selected to be the primary term, namely dropsy. In British English this synonym is perhaps the best known, but not in South Africa. Another issue here is that the Xitsonga paraphrase 'a disease of sleeping together' would be an ambiguous equivalent since it is generally used for describing all types of sexually transmitted diseases like syphilis and drop.

Another problematic term identified as incorrect in the *DSAC Multilingual Glossary of Medical/Health Terminology* is that of phlegm. Phlegm has been translated as *phika*, which refers to 'asthma' in Xitsonga. A more appropriate equivalent term for 'phlegm' could have been *xikhohlola* (see section 2.4 for a full discussion of this term equivalent), since it would not be ambiguous, and therefore open to misunderstanding if used in communication between health workers and lay people.

The findings also indicate that most of the terms that were left blank in the *DSAC Multilingual Glossary of Medical/Health Terminology* have been supplied with equivalents by the health/medical specialists.

#### **4.3 Summary of findings**

Paraphrasing tended to have been used mostly by the health specialists. The reason behind paraphrase of meaning by the health specialists was probably to give a clear understanding of what the term refers to. Health/medical specialists who are domain specialists have applied paraphrase as a translation strategy in

an overwhelming 62,5% of cases, while in 32,5% of cases, paraphrasing was used in the *DSAC Multilingual Glossary of Medical/Health Terminology*. (As indicated, the DSAC terminologists made use of translation by a more general word as the most frequently applied term formation strategy - in 40% of cases).

In addition to paraphrase, there are other instances where the health/medical specialists and DSAC used similar term formation strategies. This applies to the use of a more general word, as in the case of the SL terms 'ailment' and 'abdomen'. (See Table 1).

The findings also indicate instances where the health/medical specialists and DSAC uses similar term formation strategy with an additional different term formation strategy on a single term. For example, on the term 'depression', there has been a use of paraphrase by both the health/medical specialists and DSAC, and, an additional use of transliteration by DSAC only.

The findings also indicate that the health/medical specialists and DSAC used different term formation strategies for a similar term. For example, DSAC used paraphrase while the health/medical specialists used a more general word strategy, for the term 'diabetes'. For the term 'skeleton', DSAC used transliteration as a strategy while the health/medical specialists utilised translation by a more general word as a translation strategy.

The fact that mother tongue speakers of Xitsonga (be they language workers or health experts) do not consistently use the same term for a particular concept, does not create confusion, because an attempt is made at giving a definition of the source term. For example, for the term 'diabetes', DSAC gave a Xitsonga translation equivalent, 'sickness of sugar' while the health/medical specialists used 'sugar'. This shows that there is a lack of standardised terminology in most specialised subject fields. Although this does not cause confusion, it highlights the need for standardisation of terms. It is the finding of this study that there is a

divergence in term formation strategies used in the furnishing of equivalents for the terms indicated in Table 1.

In the DSAC list, in cases where there were problems of non-equivalence or the lack of direct equivalence between the source term and the target term, the most common strategy used to address this problem was the use of a more general word as term formation strategy.

For *abdomen* the health/medical specialists referred to the term as *khwiri*, meaning lower part of the stomach. This term and all the English terms indicated in the Table 1 do not have an absolute Xitsonga equivalent. This study observed that health/medical specialist provided the technical terms with the nearest equivalent term for the reason of incomplete correspondence between the semantic content of English and Xitsonga. Furthermore, although the concept is known in Xitsonga, it is not lexicalized, i.e. there is no term assigned to that particular concept.

#### **4.4 Conclusion**

The findings suggest that there is a general tendency among experts to suggest paraphrasing as a translation strategy for English terms in the field of health.

The following are the probable reasons why health experts tended to make use of paraphrase: (a) the lack of standardised term equivalents in Xitsonga. When developers of terms are confronted with a new concept that can not be readily/easily expressed in Xitsonga, they often resort to paraphrasing and in most of the cases this is in the form of a definition of the original English concept; (b) when terms are being developed 'in isolation' so to speak, as opposed to the development/translation of terms with the primary objective of being used as translation equivalents that can be directly inserted into a target text that is being translated.

When developing terms (outside of the context of a particular translation task) it is highly probable that term developers would rather opt for maximising transparency and comprehensibility, than putting in an effort to coin a term that can be used as a so-called ‘directly insertable translation equivalent’.

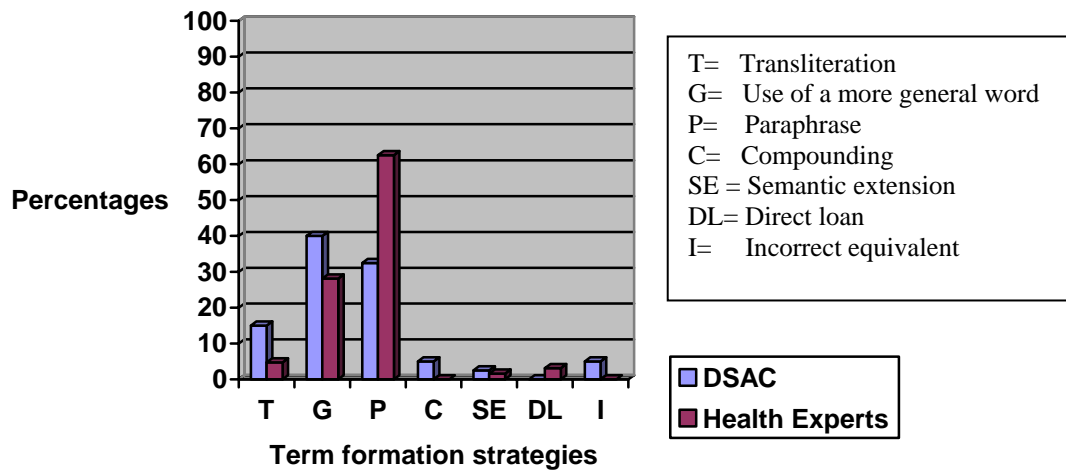
The *DSAC Multilingual Glossary of Medical/Health Terminology* on the other hand, shows an application of a variety of different translation strategies for the problematic terms selected for the study (see figure 1 below). However, the *DSAC Multilingual Glossary of Medical/Health Terminology* list also showed a number of gaps in that 13 SL (Eng.) terms were not provided with Xitsonga term equivalents and were left blank, as indicated in figure 1 below.

Although health experts did supply Xitsonga equivalents for most of the English terms, it remains a question of whether the terms are accepted as standard terms. In order to verify this fact quantitative follow-up studies are necessary. It is suggested that decisions on which Xitsonga terms to include as translation equivalents of English terms in the *DSAC Multilingual Glossary of Medical/Health Terminology*, should be based on technical considerations such as linguistic expertise and subject-field expertise, as well as on frequency of use and general acceptability among mother-tongue speakers of the languages in question.

In conclusion, Figure 1 below illustrates the different term formations strategies as used in the *DSAC Multilingual Glossary of Medical/Health Terminology* and as used by the health experts.



Figure 1: Comparison of term formation strategies as used by DSAC and health experts



## CHAPTER 5

### CONCLUSION AND RECOMMENDATIONS

#### 5.1 Introduction

The purpose of this study was to identify problematic translation equivalents and instances where the SL (Eng.) terms were not provided with translation equivalents (i.e. 13 gaps were left) in the *DSAC Multilingual Glossary of Medical/Health Terminology* and to ascertain whether mother-tongue Xitsonga speaking experts share the researcher's reservations in terms of appropriateness of certain translation equivalents. On the basis of a comparison between the term-formation strategies used in the DSAC glossary and the equivalents suggested by the experts, the intention was to establish the most frequently used translation (term-formation) strategies used in both the DSAC list and by the health experts; and to identify possible reasons for the inappropriateness of the DSAC translation equivalents. This concluding chapter gives an integration of the findings of the study. It begins with a discussion of inferences drawn from the study, followed by a comprehensive description of recommendations.

#### 5.2 Inferences

From Table 1, it can be inferred that term formation using paraphrase has been the most preferred strategy by health/medical experts, and the second most preferred strategy by the DSAC terminologists (after the use of a more general word). Paraphrasing has been extensively used by the health/medical specialist and less used in the *DSAC Multilingual Glossary of Medical/Health Terminology* as a term formation strategy. It seems that words used in paraphrases are words that are easily understood by speakers. It is clear that when term developers (be they language workers such as terminologists or Xitsonga speaking domain experts) are confronted with new concepts, which they cannot express with the other term formation strategies identified, they resort to paraphrasing.

Based on this, the use of paraphrasing could be ascribed to a lack of equivalent terms in Xitsonga. Other reasons are:

- (a) the lack of standardised term equivalents in Xitsonga;
- (b) the development of terms 'in isolation' so to speak, as opposed to the development of terms in an authentic communicative situation with the primary objective of being used as directly insertable translation equivalents. When developing terms (outside of the context of a particular translation task) it is highly probable that term developers would rather opt for maximising transparency and comprehensibility, than putting in an effort to coin a term that can be used as a so-called 'directly insertable translation equivalent'.

The paraphrasing strategy may be criticised for resulting in long terms, but then the concepts are comprehensively described. An advantage of using paraphrase is that these long terms may be reduced later when the speakers have comprehended the new concept.

The findings indicate that *DSAC Multilingual Glossary of Medical/Health Terminology* did not exhaust all term formation strategies in its furnishing of target language equivalents. This could have influenced the fact that there were several terms which were not translated at all, leaving blank spaces without translation equivalent terms. Examples for such terms are 'excretion', 'keractomy', 'medical', 'meningitis', 'laboratory', 'threadworm', 'wheelchair', 'xenodiagnosis' and 'yaws'. The gaps left in the target language for these source language terms were not only a result of lexical gaps between the English and Xitsonga languages but an oversight in terms of research by the DSAC.

Further observations are that compounding, like meaning extension, was a less productive translation strategy in the small sample since it was used for one term

only. This term formation method could be useful because compounds are descriptive and transparent.

### **5.3 Recommendations**

#### **5.3.1 *DSAC Multilingual Glossary of Medical/Health Terminology***

The *DSAC Multilingual Glossary of Medical/Health Terminology* provided a basis on which equivalence regarding health terms in Xitsonga could be evaluated and debated for further terminology development and for term formation strategies that may be used for problematic source language terms. The blank spaces that were left without target language terms also give an indication of the work that still needs to be done. Cabre (1999) suggests the following ways that can be applied to address the problem of translation gaps:

- A selection of the most suitable strategy for intervention.
- Preparation of terminology research.
- Preparation of terminology with the relevant domain specialists.
- Standardisation of the prepared terminology
- Choice of most suitable format and presentation for the prepared terminology
- Constant updating of terminology.

Any methodology for terminology planning has to tailor such requirements to the specific structure of the language to be innovated and should develop acceptability tests that can be accepted by members of the target community. It is apparent from the findings of the study that some terms as they appear in the *DSAC Multilingual Glossary of Medical/Health Terminology* needs to be revisited.

### 5.3.2 Collaboration on Terminology Development

In chapter 4, the use of language internal term formation strategies were discussed. It was also argued that the use of these term formation strategies in Xitsonga should be based on linguistic expertise, technical expertise and cultural expertise. It is recommended that terminologists should be conversant with the phonological, morphological and syntactic aspects of the language in order for them to manipulate the language internal resources to create new terms.

When new technology is imported or develops, and technical terminology does not yet exist in the language required for professional communication, it is necessary to investigate the present status of other subject-specific terminologies in the language concerned, the existing term formation patterns, the specific conditions of technology and knowledge transfer. This could be achieved in the form of a government-supported joint venture. Terminology work is a collaborative effort: linguists, terminologists, and domain experts work together in committees; they have different knowledge and expertise to contribute to a complex task (Madiba, 2000: 329-332).

It is recommended that collaboration between terminologists and subject specialists should be co-ordinated. There is a need for corpus planning in order to develop the terminologies of languages such as Xitsonga. This has to be done by both terminologists and subject field specialists, working together in term extraction from large corpora that still have to be built/compiled for most specialised subject fields. In the case of the terminology list discussed in this study, collaboration would have assisted in avoiding the selection of at least four terms that are not known; and six that are not used in the medical sphere. For example, the health specialists indicated that the term *xenodiagnosis* is not known. Judging from the definitions of *diagnosis* and *zenodiagnosis* in section 4.4 above, these two terms are not referring to the same concept. The researcher thus

concludes that such problems should have been avoided through proper collaboration between both the domain experts and the term list developers.

It is the view of the researcher that collaborative terminology development should also include the involvement of both language and domain specialists in the coining of new terms and the functional allocation of equivalent terms to a specific discourse situation in an authoritative way. Users base the involvement of all relevant stakeholders on the argument that the quality of terminology work should not compromise quality and acceptability of terms.

After all the processes of term creation have been completed by all relevant stakeholders, term corpuses are to be consolidated and turned into terminology databases; dictionaries and vocabularies. They must also be tailored towards the needs of different user groups and different application requirements. Both the terminology standardisation methods and terminology planning efforts have to focus on acceptability of terms that are newly introduced and are expected to be used by the target communities.

From the previous discussions it has become apparent that for the practical purposes of terminology planning, language planning has to be combined with science and technology planning. In particular in language planning environments, all terminology developers and subject field specialists have a key role, and they should be made aware of their responsibilities.

### **5.3.3 Language policy on the training of health/medical professionals**

Abdulaziz (1989: 33) indicates that the modernisation of languages should be sensitive to national planning and development activities in other areas like agriculture, industry, appropriate technology, education, health and other fields. It is the contention of this study that acquisition planning needs to be put in place.

Terminology planning may be operationalised and implemented by reviewing language policies in institutions of higher learning.

Knowledge transfer in relation to languages in the form of teaching and other forms of popularising and spreading the use of Xitsonga needs to be developed for all health professionals. Lack of knowledge of terminology in the language of a patient and access to such terminologies by health practitioners, leaves the patients at the mercy or creativity of the practitioners. Therefore to facilitate proper diagnosis and treatment, it is recommended that health professionals take communication courses in their indigenous languages as part of their training.

#### **5.4 Limitations of the study**

One of the limitations of this study was the selection of terms from the DSAC list. Some of the health specialists felt that certain selected terms were never used by them. The health specialists did not know at least two terms that were selected from the DSAC glossary, namely 'xenodiagnosis' and 'keratectomy'.

Another limitation of the study is the lack of reference to more recent publications on terminology in the African languages, specifically Xitsonga. However, this is largely due to the lack of published materials, and cannot be regarded as an inherent problem with the study.

#### **5.5 Conclusion**

The study was based on the comparative analysis of purposively selected terms from the *DSAC Multilingual Glossary of Medical/Health Terminology* and the terms furnished by health/medical specialists for these selected terms. These formed the data for this study and it enabled the study to identify term formation strategies that may be used to form terms in Xitsonga. It should, however, be noted that the term formation strategies used in these lists might not necessarily

reflect all the strategies available for term formation in Xitsonga. The study assumes that the terms selected reflect the primary term formation patterns of the language.

The studies done on terminology development in African languages by Mtintsilana and Morris (1988) identified the following principles: borrowing, semantic shift, derivation, compounding and paraphrasing. As can be seen in this study, the strategy of 'use of a more general word' (cf. Baker (1992) can be added to this list. Although the essence of these strategies was discussed in chapter 2, their application in the African languages has to be further researched.

It is a known fact that terminology lists of various subject fields are being developed in the African languages. It would be interesting to investigate what types of universal term formation processes are more applicable to the development of Xitsonga. There is a need for a continuous evaluation of the new technologies, and the implications thereof to the development of the official languages such as Xitsonga. In conclusion, this study serves as a basis for further research in the field of terminology development in the African languages, and in particular Xitsonga. A lot remains to be done in order to come up with strategies that will provide guidelines in the creation of new terms where there are translation gaps.



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## **Appendix A: Request Letter**

Letter to Participants

Dear Participants

I am currently conducting a study about translation equivalents for Health/Medical terminology in Xitsonga. The study is an independent project for an MA Degree in Applied Linguistics with the University of Pretoria.

I would appreciate your help with the research by supplying the translation equivalents for the English terms in Xitsonga. Anonymity and confidentiality will be ensured.

Thanks in advance for your assistance.

Tirhani Mabasa

Cell Number: was indicated

E-mail address: was indicated

**Appendix B: Term List**

Selected Terms as they appeared in the *DSAC Multilingual Glossary of Medical/Health Terminology*.

	English	Xitsonga
1	abdomen	byeke
2	adrenalin	adirenalini
3	agility exercise	vutiolori
4	ailment	vuvabyi
5	antibody	xilwa-na vuvabyi
6	balance exercise	switoloveto swo ringanela
7	depression	direxini/ku tikeriwa ka miehleketo
8	diabetes	vuvabyi bya chukela
9	digestion	mpfuvelo
10	dropsy	diropisi/diropasi
11	embryo	xitumbulukwana
12	excretion	blank
13	foetus	blank
14	gynaecologist	dokodela wa vaxisati
15	high blood pressure	ntshikelelo/nsusumeto lowukulu wa ngati
16	hybrid	mubasiteri
17	incubator	xifukamerisi/xibyamerisi
18	keratectomy	blank
19	laboratory	blank
20	medical	blank
21	meningitis	blank
22	nervous disturbance	blank
23	pain killer	xihuhwati xa kuvava
24	phlegm	phika
25	skeleton	nkongotlo/xikeletoni
26	Stroke	blank
27	syringe	xitlhaveti
28	tapeworm	nyoka ya le ndzeni
29	threadworm	blank
30	waiting room	blank
31	wheelchair	blank
32	xenodiagnosis	blank
33	yaws	blank