

**AN EVALUATION OF TRANSLATION PROCEDURES WITH
SPECIAL REFERENCE TO XITSONGA AND ENGLISH: THE
CASE OF NATURAL SCIENCE AND TECHNOLOGY
DICTIONARY**

M A I N

TRANSLATION STUDIES AND LINGUISTICS

P.T MABASA

(2009)

**AN EVALUATION OF TRANSLATION PROCEDURES WITH
SPECIAL REFERENCE TO XITSONGA AND ENGLISH: THE
CASE OF NATURAL SCIENCE AND TECHNOLOGY
DICTIONARY**

by

MABASA PATRICIA TINYIKO

Dissertation presented in partial fulfillment of the requirements for the degree of

MASTER OF ARTS

in

TRANSLATION STUDIES AND LINGUISTICS

in the

FACULTY OF HUMANITIES

(School of Languages and Communication Studies)

at the

UNIVERSITY OF LIMPOPO

SUPERVISOR Prof R. N MADADZHE

2009



225637

b11877601

112717496

(i)

DECLARATION

I, PATRICIA TINYIKO MABASA, declare that the dissertation AN EVALUATION OF TRANSLATION PROCEDURES WITH SPECIAL REFERENCE TO XITSONGA AND ENGLISH: THE CASE OF NATURAL SCIENCE AND TECHNOLOGY DICTIONARY is my own work and that all the sources that I have used have been acknowledged by means of complete references.



.....
P. T Mabasa (Ms)

Student Number: XXXXXXXXXX



.....
Date

(ii)

DEDICATION

To my daughter Shiluva Tinyiko

(iii)

ACKNOWLEDGMENTS

I would first and foremost like to express my sincere gratitude to my supervisor, Prof R. N. Madadzhe. His guidance, support, patience and encouragement throughout my study will always be appreciated.

I must acknowledge the assistance and support of my sisters, Dr Langutani and Tirhani for their willingness to assist whenever I needed their professional guidance.

I would like to thank my family, my mother Annah Sorisa Mabasa, for taking care of my daughter when I was busy with this study, my sister, Jane and my brother Jacob for their support and encouragement. To my daughter Shiluva, thanks for your understanding when I was sometimes not there for you.

I would like to direct my heartfelt gratitude to all the respondents who agreed to offer their assistance and to be interviewed for this mini-dissertation. I would also like to ask for forgiveness from all the people that I forgot to express my gratitude for their assistance in this research.

Above all, I would like to thank GOD for giving me wisdom and the strength to be able to complete this mini dissertation.

ABSTRACT

This study evaluates translation procedures as they are used in the *Natural Science and Technology Dictionary* (2005). Translation procedures are essential in translation and in the compilation of dictionaries as they help dictionary compilers to come up with the most appropriate equivalents of the source language terms. In this study, semi-structured interviews were conducted and the equivalents provided by the respondents and those of the dictionary compilers were evaluated by the researcher, with the aim of establishing whether the translation procedures used to come up with the target language equivalents of the source language terms are the most appropriate ones.

TABLE OF CONTENTS

CHAPTER 1	PAGE
1. BACKGROUND TO THE PROBLEM.....	1
1.1 TRANSFERENCE.....	2
1.2 CULTURAL EQUIVALENCE.....	5
1.3 DESCRIPTIVE EQUIVALENCE.....	6
1.4 THROUGH TRANSLATION.....	6
1.5 SHIFT/TRANSPOSITION.....	7
1.6 PARAPHRASING.....	7
1.7 REDUCTION AND EXPANSION.....	8
2. AIM OF THE STUDY.....	9
3. SIGNIFICANCE OF THE STUDY.....	9
4. RATIONALE OF THE STUDY.....	9
5. RESEARCH METHODOLOGY.....	10
5.1 COLLECTION OF INFORMATION.....	10
5.1.1 Primary sources.....	10
5.1.2 Secondary sources.....	11
6. SCOPE AND DELIMITATION.....	11
7. LITERATURE REVIEW.....	11
7.1 CARTFORD (1965).....	11
7.2 NIDA AND TABER (1969).....	12
7.3 MTHOMBENI (2005).....	12
7.4 MBATHA (2005).....	13
7.5 MPH AHLELE (2001).....	13
8. ORGANIZATION OF THE STUDY.....	14

CHAPTER 2

TRANSFERENCE, REDUCTION AND EXPANSION AND SHIFT/ TRANSPOSITION

2.1 INTRODUCTION.....	15
2.2 TRANSFERENCE.....	15
2.3 SHIFT/TRANSPOSITION.....	21
2.3.1 When verbs change to nouns.....	21
2.3.1.1 Nouns falling under class 1 of the prefix mu-.....	23
2.3.1.2 Nouns falling under class 14 of the prefix vu-.....	23
2.3.2 Gerund.....	24
2.3.3 Compounding.....	26
2.3.3.1 Where a noun combines with a noun.....	26
2.3.3.2 Where a verb combines with a noun.....	27
2.3.3.3 Where a verb combines with a verb.....	28
2.3.3.4 Where a verb combines with an adverb.....	28
2.3.3.5 Where a verb combines with an adjective.....	29
2.4 REDUCTION AND EXPANSION.....	29
2.5 CONCLUSION.....	32

CHAPTER 3

DESCRIPTIVE EQUIVALENCE AND CULTURAL EQUIVALENCE

3.1 INTRODUCTION.....	34
3.2 THE CONCEPT CULTURE.....	34
3.3 CULTURAL EQUIVALENCE.....	35
3.3.1 Definition of Newmark's main cultural categories.....	37
3.3.1.1 Ecology.....	37
3.3.1.2 Material culture.....	37
3.3.1.3 Social culture.....	38

3.3.1.4 Organization.....	38
3.3.1.5 Gestures.....	38
3.3.1.6 Custom.....	39
3.4 DESCRIPTIVE EQUIVQLENCE.....	
46	
3.4.1 The initiator.....	46
3.4.2 The translation brief.....	46
3.4.3 Analysis of the text.....	47
3.4.4 Transfer and analysis.....	48
3.5 MISTRANSLATED TERMS.....	55
CONCLUSION.....	57

CHAPTER 4

PARAPHRASING AND TRHOUGH TRANSLATION

4.1 INTRODUCTION.....	58
4.2 PARAPHRASING.....	58
4.3 THROUGH TRANSLATION.....	66
4.3.1 Names of objects.....	66
4.3.2 Geographical names.....	67
4.3.3 Eponyms.....	68
4.3.4Acronyms and names of organizations.....	68
4.3.5 Collocation.....	69
4.4 THE TREATMENT OF POLYSEMES.....	70
4.5 CONCLUSION.....	75

CHAPTER 5

CONCLUSION

5.1 INTRODUCTION.....	76
5.2 SUMMARY.....	76
5.3 FINDINGS.....	77
5.4 RECOMMENDATIONS.....	78
REFERENCES.....	80
Appendix A: Request letter.....	85

CHAPTER 1

1. BACKGROUND TO THE PROBLEM

South Africa is a country with different people who speak different languages. After a long reign of apartheid ended in 1994, the new government transformed its language policy. Under the new *National Language Policy Framework* (2003) and in terms of section 6 of the *Constitution of the Republic of South Africa* (Act No. 108 of 1996), South Africa adopted multilingualism. Eleven languages have been granted the official status, namely, Xitsonga, Northern Sotho, Tshivenda, IsiZulu, Siswati, isiNdebele, Sesotho, English, Setswana and Afrikaans. The Constitution thus determines that everyone has the right to use the language and to participate in the cultural life of his/her choice. The multiracial and multilingual nature of South Africa compels the country to use the services of competent translators.

The translators must be able to translate the text in such a way that the target language message conveys the same meaning as the source language message. Naude (2006:45) maintains that: “there is no such thing as identical equivalent, so one must in translating seek to find the closest possible equivalent.” The quotation points the emphasis away from word-for-word equivalence towards communicative equivalence in translation. A translator according to Reiss (1980:32) in Wilss (1982:68) takes on a specific communicative role which is characterized as that of a “secondary sender” and which is marked by subjective quality concepts of a semantic and stylistic value.

But owing to linguistic and cultural differences between languages, it is impossible to produce a translation to be the mirror image of its original, certain amount of subjectivity and reformulation is involved. If a dozen translators tackle the same poem for example, they will produce a dozen different versions. And yet somewhere in those dozen versions there will be an invariable core of the original poem.

The multilingual and multicultural nature of South Africa poses problems in translation. The main problem is the lack of translated equivalence of a source language item in the target

language, which is referred to as zero-equivalence or translation gaps. Mphahlele (2001:270) states that zero-equivalence is a case where there is no translation equivalence of a lemma in bilingual dictionaries. Naude (2006:49) identifies the following problems that are encountered at the level of the word:

- Culture specific concepts
- A source language concept is not lexicalised in the target language
- A word in the source language is semantically complex
- The source language and target language distinguish divergent meanings
- The target language does not have a specific term (hyponym)
- Differences in expressive meaning
- Differences in form
- The use of loan word in the source text

Naude goes further and suggests strategies of trying to solve the above-mentioned problems in translation and translating. The strategies also referred to as translation procedures by some authors will be the subject of study in this research. The researcher will look at the effectiveness of the translation procedures in solving translation problems with regard to Xitsonga equivalents of the *Natural Science and Technology Dictionary* (2005). The main focus of the study will be to evaluate the extent to which the procedures assist the translators to solve translation problems. The question will be: do the procedures help translators to make target language users understand the meaning of what is being translated from the source language to the target language? The study will evaluate the effectiveness of the following procedures with regard to the *Xitsonga Natural Science and Technology Dictionary* (2005).

1.1 TRANSFERENCE

Transference is the process of transferring a source language item to a target language text unchanged. The items that are transferred are source language cultural words that are unfamiliar in the target language. Transference also includes transliteration, which relates to the conversion of different alphabets, the word then becomes a loan word (Newmark 1988:81).

Let us look at the following example from the *Natural Science and Technology Dictionary* (2005:112):

- (1) a. Robot – *Rhoboto*
- b. Oven – *Ovhene*

The translation equivalents above are an example where transference becomes an option in translation. The dictionary compilers could not find Xitsonga equivalents for the terms, so they had to resort to transference.

Many translators opt for transference, that is, adoption of the word as it is, but the question is that do the readers understand the transferred word? There are instances where transference works as in the following examples:

- (2). a. Email – *Imeyili*
 - b. Mercury – *Mekhuri*
- (*Natural Science and Technology Dictionary*, 2005:45 & 81)

The translation equivalents above are examples where transference is used as an option to solve the problem of lack of equivalents for scientific and technological terms. But sometimes it does not work as illustrated below:

- (2) a. Alligator – *Aligetara*
- (*Natural Science and Technology Dictionary*, 2005:3)

In the example, *Aligetara* does not give a dictionary user a clear understanding of the meaning of alligator like a comprehensive explanation would have made the user understand that it is in fact a type of a crocodile. Wilss (1982:142) maintains that a translator has a communicative function and that a translator is bound to exploit all feasible means to produce an easy-to-understand target language version of the source language word. Nida and Taber (1969:56) asserts this when

they say if there is a conflict between contents and form, correspondence in meaning must have priority over form. For instance:

(3) a. Busy Lizzie –*Ximilana xo kula hi ku hatlisa*

(Natural Science and Technology Dictionary, 2005:16)

For this example the dictionary compiler opted for explaining the meaning of Busy Lizzie instead of considering the form of the English word, this is a viable option because the dictionary user would clearly understand the meaning of Busy Lizzie.

Newmark (1988:82) contends that in some cases terms are often transferred for no reasons. But the translator's role is to make people understand the message, not to mystify by using vague words. Borrowing is nothing but the repetition or duplication of words. Describing the word with no equivalent in the target language would make the readers or the people using the dictionary understand better.

There are often problems with the translation of 'semi-cultural words'... In principle such words should first be translated, with, if necessary, the transferred word and the functional equivalent added in brackets, until you are confident that your readership recognizes and understands the word (Newmark, 1988:82).

The quotation emphasizes the importance of the understanding of the message by the target text reader, which, in the first place is the main reason for translating. The argument in favour of transference is that it shows respect for the source language country's culture. The argument against it is that the translator's job is to translate, to explain, and to make the readers understand the message.

1.2 CULTURAL EQUIVALENCE

Newmark (1988:82) defines cultural equivalence as an approximate translation where a source language cultural word is translated by a target language cultural word. The procedure is used when a target language word that does not have the same prepositional meaning is used to replace culture-specific word or expression that will have the same impact on the target reader. The procedure is used to solve the problem of cultural differences between the target and the source languages. Cultural substitution is purely functional, hardly descriptive. For example:

(4) a. Crushed mealies – *Mugayo*

b. Cape Sparrow – *Xindzingiri*

(Natural science and Technology Dictionary, 2005:18 & 32)

The dictionary compilers opted for Xitsonga culture specific words as translation equivalents for Cape Sparrow and crushed mealies. A Xitsonga speaker knows the meaning of *Xindzingiri* and will as such know the meaning of the English word Cape Sparrow. The same applies to *mugayo*, it has the same impact on the target language user like crushed mealies has on the source language user.

When considering the translation of cultural words, lexicographers should bear in mind that what is important is not the word but the message. A word-for-word notion of translation often limits the comprehension of certain aspects in cultural translation. The importance and the end-product of translation is communication. For this reason, terminologists should ask themselves which would be helpful to the user, to loan a culture specific word or to use cultural equivalent procedure. In the example above, cultural equivalence seems to be better option than making use of loan words (Newmark 1988:82).

1.3 DESCRIPTIVE EQUIVALENCE

Newmark (1988:83) states that descriptive equivalence is a procedure that emphasises the importance of a function of a translation. Description and function are essential elements in translation. If a translator cannot adopt, he/she can describe looking at the function. In translation, description sometimes has to be weighed against function; hence, description and function are two procedures that cannot be separated. Descriptive and functional equivalence are the most accurate ways of translating. Describing a source language cultural word will make the readers understand the meaning of the word. For example, the presentation of *khukusoda* as an equivalent for the English term bicarbonate of soda in the *Natural Science and Technology Dictionary*, (2005:9) below presents a problem:

(5). a. Bicarbonate of soda – *Khukusoda*

The translation equivalent in the example above is not clear to a dictionary user. Giving a short description of bicarbonate of soda as *soda yo sweka* would give a dictionary user a clear understanding of what bicarbonate of soda is.

1.4 THROUGH TRANSLATION

Through translation is the literal translation of common collocation, names of organizations, the components of compound nouns and perhaps phrases. Through translation is also known as loan translation. It is sometimes useful in filling in gaps in contiguous cultures. Normally, through translations should only be used for already recognized terms (Newmark, 1988:88). Let us look at the following example from the *Natural Science and Technology Dictionary*, (2005:124):

(6). a. Television set/TV - TV

TV can be translated as TV and the target language user will understand its meaning.

1.5 SHIFT / TRANSPOSITION

A shift or transposition is a translation procedure involving a change in the grammar from source language to target language. Here are some of the changes in grammar due to shift or transposition:

- Change from singular to plural
- When a source language grammatical structure does not exist in target language
- Gerund
- Where literal translation is grammatically possible but may not accord with natural usage in the target language
- Verbs change to nouns
- Replacement of a virtual lexical gap by a grammatical structure (Newmark 1988:86).

For illustration, two examples will be used:

(7). a. Pour – *Ku halata*

b. Decade – *Lembe-xikhume*

(*Natural Science and Technology Dictionary*, 2005:4)

The change of pour to *ku halata* is a gerund because *ku halata* is a noun (infinitive) which is derived from the verb *halata* and decade becomes *lembe-xikhume* which is a combination of a noun *lembe* and an adjective *khume*

1.6 PARAPHRASING

Paraphrasing is an explanation of the meaning of the segment of the text. Paraphrasing is used in an 'anonymous' text when it is poorly written, or has implication and omissions (Newmark 1988:90). For example:

(8).a. Amphibian – *Xihanya matini na le handle*

(Natural Science and Technology Dictionary, 2005:4)

The paraphrase is clear to a dictionary user than if the translation equivalent was loan word like the translation equivalent for radioactive, that is, *rhadiyo ekithivhi*, which does not help the dictionary user to understand the meaning of the word.

The advantage of paraphrasing is that it has a high level of precision. The explanation will enable the reader understand the meaning of the lexical item. Baker (1992:400) highlights the disadvantage that the paraphrase does not have the same status, and does not capture the expressive meaning nor is it able to convey any other meaning of the word, which must overrule any other disadvantage of using paraphrasing as a procedure in translation.

1.7 REDUCTION AND EXPANSION

This procedure is based on the principle of acceptance that sameness cannot exist between two languages. Translators use this procedure to tackle the problem of loss and gain in the translation process (Newmark, 1988:44). Nida and Taber (1969:3) give more information about the problems of loss and gain in translation, particularly about difficulties encountered when a source language item does not exist in the target language. Naude (2006:56) sees reduction which she refers to as an omission, a drastic strategy. However, she points out that it often does not harm to omit a certain word or expression in a certain context, but this can only be done if the meaning of the word or expression is not critically important for the development of the text and therefore, extended explanations are unjustified.

2. AIM OF THE STUDY

The aim of this study is to evaluate the effectiveness and appropriateness of translation procedures in the *Natural Science and Technology Dictionary* (2005). In order to achieve this aim, the following research questions will have to be answered:

- Which of the Xitsonga translation equivalents in the Department of Arts and Culture (DAC) *Natural Science and Technology Dictionary* are linguistically problematic to mother-tongue speakers of Xitsonga?
- Do the procedures help translators to make target language users understand the meaning of what is being translated from the source language to the target language?
- Why are they inaccurate and/or otherwise unacceptable?

3. SIGNIFICANCE OF THE STUDY

The significance of this study lies in the fact that it is aimed at:

- Helping students and language practitioners to interpret and translate *Natural Science and Technology Dictionary* correctly.
- Making translators to be aware of different procedures that they may employ in their translations.
- Ensuring that the reader gets the correct message from the source language.
- Serving as research material for the scholars in Translation Studies and Linguistics.

4. RATIONALE FOR THE STUDY

The rationale of this study is to highlight the problems associated with equivalence in translation of natural science and technology, and to look at the effectiveness of the strategies and procedures employed to solve such problems. This study will discourage the improper use of translation procedures. The study will help translators translate properly thus making readers understand translations.

5. RESEARCH METHODOLOGY

In this study, the qualitative method will be used. The research will evaluate the *Natural Science and Technology Dictionary* (2005) in terms of the procedures used in the compilation of terms and their Xitsonga translated equivalents.

5.1 COLLECTION OF INFORMATION

5.1.1 Primary sources

Information will be obtained through consultation with the appropriate people in the field of translation, and natural sciences and technology. This will necessitate convenience sampling in selecting experts or professionals whose first language is Xitsonga, and who are involved in the field of natural science. This will include ten (10) Language Educators, ten (10) Science Educators, ten (10) Learners, and five (5) Language Practitioners will be consulted through interviews with semi-structured questions.

The practical advantage of this kind of sampling is that it allows a simple procedure for determining translation equivalents by elicitation of judgments of mother tongue speakers and experts, who are conversant in the relevant field.

To ensure adherence to ethical norms, written informed consent will be obtained from the respondents. The letter of consent will contain (a) a polite request for assistance with participation in the study, (b) an explanation as to why the research is conducted, and (c) a guarantee of anonymity and confidentiality.

5.1.2 Secondary sources

This method will be used to obtain existing information from library sources such as books, journals, magazines, dissertations, as well as the internet.

6. SCOPE AND DELIMITATION

Even though there will be reference to the work done by other scholars, the focus of this study will be on the translation procedures as they are employed in the *Natural Science and Technology Dictionary* (2005) compiled by the National Department of Arts and Culture's National Language Services Directorate.

7. LITERATURE REVIEW

In literature review, the researcher investigates what other authors say about his /her topic of choice as it will help the researcher to understand his/her topic more clearly. In as far as the above-mentioned topic is concerned; the present author will rely on the following authors who also explored procedures and strategies used in translation to deal with the problems of lack of translation equivalents.

7.1 CATFORD (1965)

Catford advocates freedom of choice in translation, he maintains that if a translation can convey the same message to a target language speaker as the source language does to the target language through word-for-word translation, he/she is free to do so. And in the same way if the translator feels that definition is needed he/she must be allowed to use it.

Catford asserts that translation equivalence depends on communicative features such as function, relevance, situation and culture rather than just on formal linguistic criteria. Catford maintains that translation equivalence does not entirely match formal correspondence. Catford's basis of translation is founded on the functional approach to language. Catford's contributions will be of

assistance to the present study as it emphasizes the translator's freedom to use any translation procedure that is effective for a particular translation.

7.2 NIDA AND TABER (1969)

Nida and Taber's contribution towards equivalence is their communicative approach to the resolution of translation equivalence. They played a key role in pointing the emphasis away from word-for-word equivalence towards communicative equivalence. According to Nida and Taber, no two languages are identical in either the meaning given to corresponding symbols, or in the ways in which such symbols are arranged in phrases and sentences; as such there is no absolute correspondence between languages.

For Nida and Taber, the process of translation cannot avoid a certain degree of interpretation by the translator. They maintain that there is no such thing as identical equivalents, it is for this reason that one must in translating try to seek to find the closest possible equivalent.

Nida and Taber prefer that the wording of the target language text creates the same situation in the target language situation as it does in the source language audience. Nida and Taber's approach to the problem of equivalence in translation will assist the present researcher as it stresses the importance of the source language message being conveyed to the target language text rather than to focus on word-for-word translation procedure even if it does not convey the source text message.

7.3 MTHOMBENI (2005)

Mtombeni's topic focuses on equivalence in translation with specific reference to Northern Sotho and English. Her research is based on the analysis of translation equivalence at the level of the word, equivalence used for figures of speech, and equivalence at sentence level with ideophones and equivalence of legal terms.

For culture specific concepts, Mthombeni highlights the importance of replacing the culture specific concepts of the source language with culture specific concepts of the target language. Mthombeni discourages translation strategies such as transliteration and borrowing. She criticises them saying they sometimes do not convey the message clearly to the target language user. Mthombeni, however acknowledges that there are instance where such strategies cannot be avoided. For Mthombeni, borrowing may be used as a last resort after all other strategies and procedures have been exhausted. Mthombeni will assist the researcher to highlight the fact that translation is a complex activity that calls for different procedures for different lexical items.

7.4 MBATHA (2005)

Mbatha's dissertation probes the influence of culture on translation with specific reference to Northern Sotho and English. Mbatha's investigation reveals that some culture-specific English concepts are untranslatable to Northern Sotho and vice-a-versa. Mbatha's investigation shows that it is not easy to translate cultural aspects if the source language and the target language are genealogically different as English and Northern Sotho are. However, Mbatha has provided strategies which can be employed to overcome the cultural barriers. Such strategies are, among others, translation through cultural substitution, translation through paraphrasing and translation through omission. Mbatha also indicates that figurative language needs special attention because when translated literally, misunderstandings may result. Mbatha's contribution is important for the present research as it highlights the importance of translation strategies that Mbatha suggests for the translation of culture specific concepts.

7.5 MPHAHLELE (2001)

According to Mphahlele, lack of translation equivalence which he refers to as zero-equivalence often occurs when there is no direct translation equivalent for a lemma. Mphahlele sees this evident in cases where English is translated into African languages. The translators then borrow or transliterate the English word as it is. For example:

Cos – Khoso

Form – *Fomo*

Mphahlele used the articles above as examples of zero-equivalence. In this case borrowing has been used as a strategy to solve the problem of zero-equivalence. Mphahlele sees the translation equivalent of the mathematical term *Cos* with *Khoso* as inadequate in conveying any meaning but is rather a duplication of the presented information.

Mphahlele's suggestion of giving a short description as opposed to borrowing unnecessarily will assist the present researcher to highlight the importance of translation procedures like paraphrasing and only opt for borrowing as the last resort.

8. ORGANIZATION OF THE STUDY

Chapter 1 serves as an introduction to this mini-dissertation and outlines the different translation procedures that are evaluated in this research.

Chapter 2 is an attempt at evaluating the use of transference, reduction and expansion and shift/transposition as they are applied in the *Natural Science and Technology Dictionary* (2005)

Chapter 3 explores the use of descriptive equivalence and cultural equivalence as translation procedures in the dictionary. Also in this chapter an attempt is made to show how dictionary compilers in some instances did not give the most appropriate equivalents for some of the English terms which result in mistranslation.

Chapter 4 examines the use of translation procedures such as paraphrasing and through translation in the compilation of the dictionary.

Chapter 5 is the concluding chapter to this study and presents the summary, findings and recommendations.

CHAPTER 2

TRANSFERENCE, REDUCTION AND EXPANSION AND SHIFT / TRANSPOSITION

2.1 INTRODUCTION

There is a general scarcity of African language equivalents (Xitsonga in particular) for special field terms in English for Natural Science and Technology. Terminologists and dictionary compilers make use of different translation procedures to try to solve the problem of lack of source language equivalents in the target language. In this chapter, the following procedures are examined: transference, reduction and expansion and shift/transposition as they are applied in the *Natural Science and Technology Dictionary (2005)* pertaining to Xitsonga.

2.2 TRANSFERENCE

Transference is a translation procedure that involves the transfer of a source language item to a target language (Newmark, 1988:81). The definition indicates that the source language item is transferred to the target language as it is.

House (1981:67) considers transference to be the process of conveying or projecting onto someone the available information in the language more understandable to the receiver. The definition shows transference is a procedure used to help target language users understand a source language item, but there are instances where transference does not help target language users, as it will be evident from some of the translated equivalents that will be examined.

Naude (2006:38) defines transference as the process of transferring a source language item to a target language text unchanged; the source language item then becomes a loan word in the target language. Transference includes transliteration, that is, the process of transferring a source language item to a target language unchanged; the source language item then becomes a loan word in the target language. This strategy is evident in the following examples from the *Natural Science and Technology Dictionary (2005)*:

English	Xitsonga
(1) a. Albatross	<i>Alibatirosi</i>
b. Burette	<i>Bureta</i>
c. Alloy	<i>Aloyi</i>
d. Argon	<i>Arigoni</i>
e. Atom	<i>Athomo</i>
f. Chemical	<i>Khemikali</i>
g. Slide	<i>Xilayidi</i>
h. Mercury	<i>Mekhuri</i>
i. Internet	<i>Inthanete</i>
j. Carton	<i>Khathoni</i>
k. Chip board	<i>Chipibodo</i>
l. Pot	<i>Poto</i>
m. Plate	<i>Puleti</i>
n. Carpet	<i>Khapete</i>
o. Chlorophyll	<i>Tlilorofili</i>
p. Calcium	<i>Khalisiyamu</i>

It is evident from the examples in (1) above that transliteration entails borrowing the term yet adapting it to the morphological and phonological structure of the borrowing language. To illustrate morphological adherence to the target language, some of the terms in the examples above are used (V and C stand for consonants and vowels respectively):

English term	Structure	Xitsonga	Structure
(2) a. Albatross	VCCVCVC	<i>Alibatirosi</i>	VCVCVCVCVCV
b. Alloy	VCVC	<i>Aloyi</i>	VCVCV
c. Argon	VCVC	<i>Arigoni</i>	VCVCVCV
d. Atom	VCVC	<i>Athomo</i>	VCVCV
e. Carpet	CVCVC	<i>Khapete</i>	CVCVCV
f. Slide	CCVCV	<i>Xilayidi</i>	CVCVCVCV

g. Pot	CVC	<i>Poto</i>	CVCV
h. Burette	CVCVCV	<i>Bureta</i>	CVCVCV
i. Chemical	CVCVCVC	<i>Khemikali</i>	CVCVCV
k. Internet	VCVCVC	<i>Inthanete</i>	VCVCVCV
l. Chipboard	CVCCVC	<i>Chipibodo</i>	CVCVCVCV
m. Plate	CVCV	<i>Puleti</i>	CVCVCV
n. Calcium	CVCCVVC	<i>Khalisiyamu</i>	CVCVCV CVCV

From the examples in (2), it is evident that there is a morphological difference between English and Xitsonga; in Xitsonga though, there are instances where two or more consonants follow one another, the most occurring sequence is a VC or CV formation. While the English terms end in either a vowel or a consonant, the Xitsonga ones end in vowels only. So, the transferred terms have to conform to Xitsonga vowel/consonant sequence.

The question is, was this the only option available for the dictionary compilers to try to solve the problem of lack of equivalence between Xitsonga and English? Had the dictionary compilers not opted for transference in the coining of translation equivalents of the terms, the following would have resulted:

English	Xitsonga	Meaning of Xitsonga term
(3) a. Albatross	<i>Xinyenyana lexikulu xa le lwandle</i>	(Large sea bird)
b. Burette	<i>Chupu ra nghilazi ro pima swihalaki</i>	(Glass tube for measuring liquid)
c. Alloy	<i>Nsimbi yo tiya</i>	(A strong metal)
d. Argon	<i>Minchumu ya xikhemikali</i>	(Chemical elements)
e. Atom	<i>Minchumu yintsongo ya xikhemikali</i>	(Smallest chemical elements)
f. Chemical	<i>Swa ximirhi</i>	(Of medicine)
g. Slide	<i>Xo voniwa eka xikirini</i>	(That which can be seen on the screen)
h. Mercury	<i>Pulaneta ya le kusuhi na dyambu</i>	(A planet next to the sun)

i. Internet	<i>Netiweke yo fambisa mahungu hi khompyuta</i>	(Network that transmit information through a Computer)
j. Carton	<i>Khalibo ro hoxa swilo</i>	(A light cardboard container)
k. Pneumonia	<i>Vuvabyi bya mahahu</i>	(Disease of the lung)
l. Pot	<i>Mbita</i>	(Clay pot)
m. Plate	<i>Ndyelo</i>	(Wooden plate)
n. Carpet	<i>Mete</i>	(Mat)
o. Chlorophyll	<i>Muhlovo wa rihlaza wo tswonga matimba ya dyambu</i>	(Green pigment absorbing kinetic energy)
p. Calcium	<i>Switiyisa marhambu emirini</i>	(Bone strengthening nutrient)

Would these equivalents have helped the dictionary compilers to accomplish the main function of translation, which is to make the target language users understand the translation equivalents? Unfortunately, the answer is no, as some of the translation equivalents are not clear. Let us look at the following translated equivalents that were suggested by the language specialists consulted by the researcher:

English	Xitsonga
(4) a. Pot	<i>Mbita</i>
b. Plate	<i>Ndyelo</i>

(Natural Science and Technology Dictionary, 2005: 102 & 98)

The language specialists felt that these are the most appropriate equivalents; the specialists feel that the dictionary compilers opted for transference when in fact Xitsonga does have translated equivalents for the English terms. However, culturally *mbita* refers to a clay pot while *ndyelo* is used to refer to a wooden plate. Had the dictionary compilers used these translated equivalents, the younger generation could have been confused.

Transference is a useful procedure that helps dictionary compilers and terminologists to deal with the problem of lack of equivalence between source and target languages, but at times

transference is used when in fact other procedures could have been a better option. Mtintsilana and Morris (1988: 111) caution that although transliteration seems to be a 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 short cut, but as a last resort.

Mphahlele (2004: 341-342) supports Mtintsilana and Morris by stating 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 the first but the last solution after all measures have failed. The following translation equivalents will be used to try to look at the strength and weaknesses of transference in solving the problem of lack of equivalence:

English	Xitsonga
(5) a. Chemical	<i>Khemikali</i>
b. Slide	<i>Xilayidi</i>
c. Mercury	<i>Mekhuri</i>
d. Internet	<i>Inthanete</i>

(Natural Science and Technology Dictionary, 2005: 21, 123, 81 & 86)

The translated equivalents in (5) above are examples of instances where transference becomes an option to solve the problem of lack of equivalents. These terms are scientific and technological and as such do not have equivalents in Xitsonga. However, there are instances where transference does not work, as illustrated by the examples in (6) below:

English	Xitsonga
(6) a. Carton	<i>Khathoni</i>
b. Bakelite	<i>Bekilayiti</i>
c. Chipboard	<i>Chipibodo</i>
d. Heron	<i>Heroni</i>
e. Carnation	<i>Khanexini</i>

(*Natural Science and Technology Dictionary*, 2005: 19, 7, 18, 63 & 22)

The translation equivalent of the terms above will not give a dictionary user a clear understanding of the English terms like a comprehensive explanation of the term would have done. According to the researcher and the language specialists consulted by the researchers, the dictionary compilers should have given the following translated equivalents:

English	Xitsonga
(7) a. Chipboard	<i>Mapulanga yo hlahleleriwa ya endla fanichara</i>
b. Carton	<i>Khadibodo ro vevuka ro hoxa swilo</i>
c. Bakelite	<i>Xivumbeko xa masungulo xa pulasitiki</i>
d. Carnation	<i>Xiluva xa mihlovohlovo</i>

These translated equivalents would have given a dictionary user a clear understanding of the English terms. The dictionary compilers in this way would have fulfilled the purpose of compiling a dictionary. Another useful option is a combination of two or more procedures. Baker (1992:36) proposes to join two specific strategies, which are using a loan word and an explanation. For example, a combination of transference and paraphrase as in coinage of the following equivalents suggested by the researcher:

English	Xitsonga
(8) a. Chipboard	<i>Mapulanga yo hlahleleriwa ya endla fanichara/chipibodo</i>
b. Carton	<i>Khadibodo ro vevuka ro hoxa swilo/khathoni</i>
c. Bakelite	<i>Xivumbeko xa masungulo xa pulasitiki/bekilayiti</i>
d. Carnation	<i>Xiluva xa muhlovohlovo</i>

The combination of transference and paraphrase above would make sure that the dictionary user understands the meaning of the English terms. Translation scholars see combining two or more strategies as a helpful solution to the problem of lack of equivalence for source language terms in the target language.

2.3 SHIFT/TRANSPOSITION

A shift or transposition is a procedure involving a change in grammar from one language to another language (Newmark, 1988: 86). Mager and Mager (1974:1315) define shift as a change that occurs phonetically and in a systematic way. From the definition, it is clear that shift/transposition does not just occur, it is systematic, and it has to adhere to the phonological and systematic structure of the target language.

Concise Oxford Dictionary (1934: 1321) describes shift as to make or cause to move or change from one position to another. Here are some of the instances where shift/transposition has been used as a procedure in the *Natural Science and Technology Dictionary* (2005):

2.3.1 When verbs change to nouns.

English	Xitsonga	Meaning of Xitsonga term
(9) a. Wrap	<i>Xiphutselo</i>	(That which wraps)
b. Wither	<i>Ku vuna</i>	(To wither)
c. Suspend	<i>Ku hayeka</i>	(To susupend)
d. Surf	<i>Ku valanga</i>	(To surf)
e. Conserve	<i>Xihlayisiwa</i>	(Something conserved)
f. Balance	<i>Xipimi</i>	(That which measures)
g. Buckle	<i>Xikhwexeti</i>	(That which buckle)

(Natural Science and Technology Dictionary, 2005)

In these examples, the class 15-prefix *ku-* and class 7-prefix *xi-* have been used to form nouns (derivatives). Junod (1907:20) refers to class 7 as class of instruments, because most instruments and utensils fall under this noun class. Junod give examples like:

Xitsonga	English
(10) a. <i>Xilo</i>	Thing
b. <i>Xibye</i>	Implement
c. <i>Xikolo</i>	School

(*Elementary grammar of the Tsonga-Shangaan language*, 1907:20)

Mushwana and Ndlhovu (1973:58) describe class 7 as (*maviti lawa ya nga na xirhangi xi- lawa ya vulaka swilo swo hambana-hambana*) nouns with a prefix xi- referring to different things. Some examples of nouns falling under class 7 are listed below:

Languages

Xitsonga	English
(11). a. <i>Xisuthu</i>	Sotho
b. <i>Xibunu</i>	Afrikaans
c. <i>Xitsonga</i>	Tsonga
d. <i>Xivhenda</i>	Venda
e. <i>Xizulu</i>	Zulu

Implements

Xitsonga	English
(12) a. <i>Xihloka</i>	Axe
b. <i>Xilepulana</i>	Teaspoon
c. <i>Xikomvu</i>	Plough
d. <i>Xitsalo</i>	Pen
e. <i>Xipeyidi</i>	Spade

Body parts

Xitsonga	English
(13) a. <i>Xisuti</i>	Waist
b. <i>Xikosi</i>	Back of the head
c. <i>Xikokola</i>	Elbow
d. <i>Xikandza</i>	Face

(*Mushwana and Ndlhovu* , 1973:58)

For illustration in terms of transposition, the terms in (9) above, that is, **conserve**, **balance** and **wrap** from the *Natural Science and Technology Dictionary* are used. The term **conserve** is given the equivalent *xihlayisiwa*, a noun that comes from the verb *hlayisa*. **Balance** is given the equivalent *xipimi*, which is a noun derived from the verb *pima*. The same applies to **wrap** which is given the equivalent *xiphutselo*. *Xiphutselo* is a noun derived from the verb *phutsela*. Other noun classes have also been used for shift/transposition in the *Natural Science and Technology Dictionary*. Let us look at the following examples:

2.3.1.1 Nouns falling under class 1 of the prefix mu-

English	Xitsonga
(14) a. Brick layer	<i>Muaki</i>
b. Astronaut	<i>Mudavula mpfhuka</i>
c. Producer	<i>Mutumbuluxi</i>

The dictionary compilers used shift/transposition as a procedure to form the nouns *muaki*, *mudavula mpfhuka*, and *mutumbuluxi* from verbs *aka* (build), *davula* (tear) and *tumbuluxa* (produce) and the adjective *mpfhuka*.

2.3.12 Nouns falling under class 14 of the prefix vu-

English	Xitsonga
(15) a. Agriculture	<i>Vurimi</i>
b. Altitude	<i>vutlakuki</i>
c. Bran	<i>Vudyangwana</i>
d. Efficiency	<i>Vutshila</i>
e. Factory	<i>Vumakelo</i>
f. Length	<i>Vulehi</i>
g. Industry	<i>Vumaki</i>
h. Width	<i>Vuanami</i>

In coining these equivalents, the dictionary compilers used class 14 of the prefix *vu-*. According to Mushwana and Ndlhovu (1973: 48), (*xirhangi xa maviti ya ntlawa wa 14 i vu-, naswona hakanyingi ku kumeka maviti yo komba swihalaki, swakudya na swimilana swa nhova*) the prefix of noun class 14 is *vu-*, and in most cases the nouns refer to liquids, food and wild plants. The dictionary compilers had to use shift/transposition in coining translated equivalents of the English terms in order to conform to the syntactic and morphological structure of Xitsonga as their target language, had they may be tried to opt for direct translation and transferred the English terms to Xitsonga, the equivalents they would have give would be meaningless.

2.3.2 Gerund

Webster's Encyclopedic Unabridged Dictionary of the English Language (1934:308) defines a gerund as a form regularly derived from a verb and functioning as a noun. Mager and Mager (1974:98) assert this when they define a gerund as a form of a verb capable of being construed as a noun, but retaining the regimen of the verb, it is applied to form functional equivalents in other languages. The definitions indicate that a gerund is noun that is derived from a verb and it is sometimes used to form functional equivalence in translation and translating.

Furthermore, Catford (1965:115) defines a gerund as a verbal that ends in *-ing* in English and function as a noun. The definitions indicate that a gerund is based on a verb and therefore expresses action or state of being. A gerund functions as a noun, and occupies some positions in a sentence that a noun would occupy.

According to Junod (1907:21), all the verbs in the infinitive mood that are treated like nouns fall under noun class 15. This is further backed by Mushwana and Ndlhovu (1973:70) who maintain that (*maviti ya ntlawa wa 15 ya vonaka hi xirhangi ku- lexi landzeriwaka hi riendli*) nouns falling under class 15 are identified by the prefix *ku-*, which is followed by a verb.

The following are examples of a gerund:

English	Xitsonga	Meaning of Xitsonga terms
(16) a. Birth	<i>Ku tswariwa</i>	(To be born)
b. Regurgitate	<i>Ku gayela</i>	(To digest)
c. Retract	<i>Ku nyokovela</i>	(To retract)
d. Breathing	<i>Ku hefemula</i>	(To breath)
e. Plant	<i>Ku byala</i>	(To plant)

(Natural Science and Technology Dictionary, 2005)

The change of **birth** to *ku tswariwa*, **regurgitate** to *ku gayela* and **retract** to *ku nyokovela* is a gerund as the translation equivalents are nouns (infinitive) of noun class 15 in Xitsonga.

The question might be were there other alternatives available for the dictionary compilers to avoid infinitive? The answer can be yes, the dictionary compilers could have given the following equivalents:

English	Xitsonga	Meaning of Xitsonga term
(17). a. Birth	<i>Ntswalwa</i>	(Born)
b. Regurgitate	<i>Nghayelo</i>	(Regurgitation)
c. Retract	<i>Nyokovela</i>	(Retraction)
d. Breathing	<i>Vuhefemuri</i>	(Breathing)
e. Plant	<i>Mbyalo</i>	(Planting)

Moreover, another question could arise, as to which of the translated equivalents is the most useful one in translation. Taking into account the main function of creating a dictionary or terminology list, that is, to help the target language user understand the source language terms, the equivalents given by the dictionary compilers seems to be the most appropriate ones. The equivalents are the most regularly used terms that conform to noun class 15 of the Xitsonga language. Therefore, the *Natural Science and Technology Dictionary* compilers could not avoid changes like this due to morphological and phonological differences between Xitsonga and English.

2.3.3 Compounding

Compounding is a term formation process whereby two or more morphemes are combined to form a new term. According to Madiba (2000:214-215), compounding is another productive term formation strategy that has been used in the development of terminology lists and dictionaries.

Poulos (1990:74) in Madiba (2000) refers to compounding as agglutination, meaning that the original word forms are in some way or another “glued” together. Paulos defines compound nouns as nouns that are made up of a combination of words or stems which represent either the same or the different parts of speech.

Mager and Mager (1974:98) define compounding as the formation of a word consisting of more than one free morpheme. The definitions show that compounding is a process whereby two or more morphemes are combined to form a new term. Different types of compound nouns in the target language (Xitsonga) are found in the *Natural Science and Technology Dictionary*. Some of them are listed below:

2.3.3. 1 Where a noun combines with a noun

English	Xitsonga
(18). a. Anther	<i>Mfuku-rivandza</i> (N= <i>mfuku</i> ; N= <i>rivandza</i>)
b. Atmosphere	<i>Moya-khubu</i> (N= <i>moya</i> ; N= <i>khubu</i>)
c. Caterpillar	<i>Xivungu -njiya</i> (N= <i>xivungu</i> ; N= <i>njiya</i>)
d. Pulp	<i>Mukapu-phepha</i> (N= <i>mukapu</i> ; N= <i>phepha</i>)
e. Mussel	<i>Nhlampfi-xihumba</i> (N= <i>nhlampfi</i> ; N= <i>humba</i>)
f. Moorhen	<i>Nyenyana-mati</i> (N= <i>nyenyana</i> ; N= <i>mati</i>)
g. Cereal	<i>Rivele-ndzhoho</i> (N= <i>rivele</i> ; N= <i>ndzhoho</i>)
h. Gymnosperm	<i>Ximila-ndzhoho</i> (N= <i>ximila</i> ; N= <i>ndzhoho</i>)

2.3.3.2 Where a verb combines with a noun

English	Xitsonga
(19). a. Fan	<i>Xihuhutela-moya</i> (V= <i>xihuhutela</i> ; N= <i>moya</i>)
b. Anatomy	<i>Ntivo-swirho</i> (V= <i>tiva</i> ; N= <i>swirho</i>)
c. Acrylics resign	<i>Xivumba-pulasitiki</i> (V= <i>vumba</i> ; N= <i>pulasitiki</i>)
d. Mulch	<i>Xihlayisa-ndzhongho</i> (V= <i>hlayisa</i> ; N= <i>ndzhongho</i>)
e. Repellent	<i>Xihlongola-switsotswana</i> (V= <i>hlongola</i> ; N= <i>switsotswana</i>)
f. Vessel	<i>Xikhoma-swihalaki</i> (V= <i>khoma</i> ; N= <i>swihalaki</i>)
g. Parasite	<i>Xidya- vongwe</i> (V= <i>dya</i> ; N= <i>vongwe</i>)
h. Vegetarian	<i>Xihanya-hi -matsavu</i> (V= <i>hanya</i> ; N= <i>matsavu</i>)
i. Sawmill	<i>Xisaha-mapulanga</i> (V= <i>saha</i> ; N= <i>mapulanga</i>)
j. Pigment	<i>Xivanga-muvala</i> (V= <i>vanga</i> ; N= <i>muvala</i>)
k. Predator	<i>Xihanya-hi-nyama</i> (V= <i>hanya</i> ; N= <i>-nyama</i>)
L. Vegetarian	<i>Xihanya-hi-matsavu</i> (V= <i>hanya</i>)
m. Ovary	<i>Xitshikela-tandza</i> (V= <i>tshikela</i> ; N= <i>tshikela</i>)
n. Map	<i>Xifanisa- matiko</i> (V= <i>fanisa</i> ; N= <i>matiko</i>)
o. Herbivore	<i>Xihanya-hi-swimila</i> (V= <i>hanya</i> ; N= <i>swimila</i>)

From the examples in (19) above, the equivalents *xihuhutela-moya* and *xidya-vongwe* will be used to look at the effectiveness of compounding. *Xihuhuhutela-moya* is a combination of the verb *huhutela* and the noun *moya*, while *xidya-vongwe* is a combination of the verb *dya* and the noun *vongwe*. The question might be is compounding working in this instance in helping the Dictionary compilers to reach the most appropriate equivalents for the terms **fan** and **parasite**.

According to Cluver (1989:70), term formation is a rule governed process in which roots and stems are combined with other roots, stems or affixes to form new words. 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.

However, the most important thing is the usefulness of a translation procedure in informing a target language user of the meaning of a source language term. The most appropriate translation equivalents, which would have really fulfilled the aim of developing terminology list and creation of a dictionary in 19 above, could have been the following:

English	Xitsonga
(20). a. Fan	<i>Fene</i>
b. Parasite	<i>Pharasayiti</i>

These are the most frequently used equivalents of the terms. These equivalents would give a Xitsonga language user a clear understanding of the terms **fan** and **parasite**.

2.3.3.3 Where a verb combines with a verb

English	Xitsonga
(21). a. Block	<i>Xipima-ntikelo</i>
b. Thermometer	<i>Xipima-mahiselo</i>
c. Valve	<i>Pfula-pfala</i>

The translated equivalent of the term **valve** as *Pfula-pfala* in (21) above is not clear, as the transferred term *vhelufu* is the most frequently used term in Xitsonga. Fortunately, the dictionary compilers combined two strategies to coin the translated equivalent for the term **valve**. In addition to *pfula-pfala*, the compilers also gave the term *vhelufu* as an alternative equivalent; here we see a combination of transference and descriptive equivalence.

2.3.3.4 Where a verb combines with an adverb

English	Xitsonga
(22). a. Repel	<i>Susumetela-ndzhaku</i>
b. Aircraft	<i>Xihahampfhuka</i>

From the examples in (22) above, *xihaha-mpfhuka*, will be used to look at the effectiveness of compounding as a translation procedure. *Xihahampfhuka* is a combination of verb *haha* and the adverb *mpfhuka*. Compounding helped the dictionary compilers in coining the translated equivalent of the term aircraft, as compound noun has been used as an equivalent of the English term.

2.3.3.5 Where a verb combines with an adjective

English	Xitsonga
(23). a. Taproot	<i>Rimitsu-nkulu</i>
b. Goldfish	<i>Nhlampfi-mfuwiwa</i>

2.4 REDUCTION AND EXPANSION

Reduction and expansion are procedures used to tackle the problem of loss and gain in looking for translation equivalents in the compilation of dictionaries (Newmark, 1988:44). The loss and gain occur due to the differences between the source and the target languages, a part of a word found in one language could be left out in another with no alteration in meaning.

House (1981:76) considers reduction to be a process in which a source language word or phrase in a translation unit, is replaced with a target language word or a phrase which does not embrace part of the source language meaning.

Cluver (1989:46) defines reduction as the omission of an item, which is not replaced by anything else. The omission occurs in particular when something is left unsaid, but it is nonetheless understood. The following examples from *Natural Science and Technology Dictionary (2005)* indicate that reduction and expansion has been used as a term formation procedure.

English	Xitsonga
(24). a. Saltpetre	<i>Munyu</i>
b. Sand storm	<i>Bubutsa</i>
c. Wood drill	<i>Borho</i>
d. Copper pin	<i>Xipereta</i>
e. Maize porridge	<i>Vuswa</i>
f. Heart shaped	<i>Ximbilu</i>
g. House hold cleanser	<i>Xibasisi</i>
i. Turtle dove	<i>Tuva</i>
j. Khaki weed	<i>Nhova</i>
k. Liquid state	<i>Vuhalaki</i>

(Natural Science and Technology Dictionary, 2005)

The dictionary compilers opted for reduction to coin equivalents of the terms in the examples above. For **saltpetre**, *munyu* has been used as an equivalent. The equivalent *munyu* is translated as salt and the other part of the word, that is –petre has been left out. Same applies to the other four terms given in the example above. For **maize porridge** for example, the dictionary compilers used the equivalent *vuswa* and left the other part of the term. If reduction was not opted for, the term could have had the following equivalents:

English	Xitsonga
(25). a. Saltpetre	<i>Munyu wa maribye</i>
b. Sand storm	<i>Bubutsa ra sava</i>
c. Wood drill	<i>Borho ya timhandzi</i>
d. Copper pin	<i>Xipereta xa koporo</i>
e. Maize porridge	<i>Vuswa bya mavele</i>
f. Heart shaped	<i>Xa xivumbeko xa Ximbilu</i>
g. House hod cleanser	<i>Xibasisi xa le ndlwini</i>
h. Khakhi weed	<i>Nhova ya khakhi</i>
i. Turtle dove	<i>Tuva ximfutsu</i>
j. Liquid state	<i>Xiyimo xa Vuhalaki</i>

According to Naude (2006:38) it does not harm to omit a word or an expression in certain context. Naude emphasizes that reduction can be used as a procedure only if the meaning of the word or expression is not critically important to the development of the text and therefore, expanded explanations are unjustified. The translation equivalents given by the dictionary compilers do not alter the meaning of the terms. These are examples of situations in which reduction is useful as a term formation procedure.

Expansion on the other hand is the detailed expression of what is implicitly contained in a statement or the writing out in full of the meaning of a graphical construction (*The Concise Oxford English Dictionary*, 1934:500). Naude (2006:39) refers to expansion as addition which occurs when a target text turn out to contain linguistic, cultural or textual items which did not occur in the source text. The definition highlights the fact that the additions occur in order to conform to textual, linguistic and cultural needs of the target language.

House (1981:78) defines expansion as a process in which a source language word or phrase in a translation unit, is replaced with a target language word or phrase which covers the source language word meaning plus something else. For coining translated equivalents for the following terms, the *Natural Science and Technology Dictionary* compilers used expansion as a term formation procedure:

English	Xitsonga
(26). a. Chitin	<i>Gwangwangwa ra swihadyana</i>
b. Convection	<i>Mfambiso wa nkahelo</i>
c. Series	<i>Makhulukelo ya gezi hi nandzelelano</i>
d. Canister	<i>Xibokisana xa nsimbhi</i>
e. Clear	<i>Nkala mapapa</i>
f. Draught	<i>Moya wo titimela wa le ndlwini</i>
g. Oak	<i>Tsandze wa oku</i>

(Natural Science and Technology Dictionary, 2005)

The *Natural Science and Technology Dictionary* compilers opted for among others, expansion as a procedure in coining Xitsonga equivalents of the English Natural Science and Technology terms as indicated by the examples above. These are examples of cases where due to linguistic and cultural differences between languages, expansion cannot be avoided in the development of terminology and compilation of dictionaries.

Had the dictionary compilers not opted for expansion, they would have given the following equivalents:

English	Xitsonga
(27). a. Chitin	<i>Gwangwangwa</i>
b. Convection	<i>Mfambiso</i>
c. Series	<i>Nandzelelano</i>
d. Canister	<i>Xibokisana</i>
e. Clear	<i>Vonakala</i>
f. Draught	<i>Moya</i>
g. Oak	<i>Oku</i>

These equivalents would not have been comprehensible enough to dictionary users as compared to the ones used by the dictionary compilers who made use of expansion to give the dictionary user a clear understanding of the English terms. The term **oak** will be used to illustrate this: Had the dictionary compilers used transference, for example and translate **oak** as *oku*, the dictionary user would not understand that it refers to a type of a wood, the inclusion of *tsandze* (wood) help the dictionary user to understand the term more clearly.

2.5 CONCLUSION

The chapter observed that dictionary compilers in the *Natural science and Technology Dictionary* opted for transference even in the instances where the procedure was not the viable option to give the Dictionary users a clear understanding of the translated equivalents of the English terms. However, there are instances that according to the researcher, and the opinion of

language specialists consulted by the researcher, transference, reduction and expansion together with shift /transposition could not have been avoided as procedures to coin some equivalents of the source language terms. Translation procedures are dependent on context, so the same procedure can work in one context and not in another. Sometimes one may use two or more procedures for the same term to make sure that a dictionary, terminology list is of assistance to its user.

CHAPTER 3

DESCRIPTIVE EQUIVALENCE AND CULTURAL EQUIVALENCE

3.1 INTRODUCTION

A very close relationship exists between language and culture. This relationship influences translation and translating. The shortcoming of most translation theories was their total disregard for the socio-cultural conditions under which translations are produced in order to comply with the requirements of acts of communication of the receiving culture. Translation scholars came to the realization that the perfect translation of cultural bound text is problematic and impossible. Newmark (1988:78) maintains that translation problems caused by culture-specific words arise because they are intrinsically and uniquely bound to the culture concerned. They are also related to the context of the culture words, they denote subjects and concepts characteristic of the way of life, the culture, and the social and historical development of one nation and alien to another.

The realization that translations are never produced in a vacuum, regardless of time and culture, resulted in a shift away from normative and prescriptive methodology towards a descriptive and functional one for the study of the subject of translation and translating. Translation scholars came up with strategies to deal with the problem caused by the differences between the source and target languages. In this Chapter, two of the strategies or procedures, that is, descriptive equivalence and cultural equivalence with regard to the *Natural Science and Technology Dictionary (2005)* are examined. Languages that will come under scrutiny are English and Xitsonga. Also in this Chapter, an attempt will be made to show how the dictionary compilers in some instances did not give the most appropriate equivalence for some of the English terms.

3.2 THE CONCEPT CULTURE

Before looking at cultural equivalence, it is essential to understand the concept culture and the relationship between language and culture. Hymes (1964: 455) defines culture as a complex

whole that includes knowledge, beliefs, art, morals, law, customs, and any other capabilities and habits acquired by man as a member of society. The definition clearly indicates that language is part of culture, as language is one of the many capabilities acquired by man as a member of a society.

According to Halliday and Hassan (1985:98), culture is a way of life, which includes but not limited to language, art and sciences, thought, spirituality, social activity and interaction. Like Hymes, Halliday and Hassan emphasize the fact that culture is a way of life that encompasses various aspects of the co-existence of the human race.

Newmark (1988:94) defines culture as the way of life and its manifestations that are peculiar to a community that uses a particular language as its means of expression. The definition of culture as a way of life means that it includes a wide range of aspects like life itself, manners, dress, language, religion, rituals, norms behaviors and beliefs. Culture manifest itself in symbols, words, gestures, pictures, or objects that carry a particular meaning which is only recognized by those who share that particular culture. While these definitions cover a wide range of meaning, they do not exhaust the many uses of the term culture.

According to Snell-Hornby (1988:40), there is a close relationship between language and culture. Language is an expression of culture and individuality of the speakers, who perceive the world through language. The close relationship between language and culture poses problems for translation. The greater the distance between the culture of the source language text and the target language text, the higher is the degree of impossibility or difficulty of translating.

However, translation scholars suggest cultural equivalence and descriptive equivalence among others as procedures that can be used in translation to solve the problem of translating culture specific terms. These procedures are discussed below:

3.3 CULTURAL EQUIVALENCE

Different scholars use different terms to refer to cultural equivalence. Naude (2006:58) refers to cultural equivalence as a strategy that involves replacing a culture-specific item with a target language item, which does not have the same propositional meaning but is likely to have a similar impact on the target reader. From the definition, it is evident that more emphasis is put on the function of the target language term or text. The use of a cultural term that is familiar for the target language users as an equivalent will enable them to understand its meaning.

For Newmark (1988:82) the term cultural equivalence means an approximate translation where a source language cultural word is translated by a target language cultural word. Newmark (*ibid*) attaches importance to the function of the source language term in the target language. Instead of transferring the source language culture specific term, he opts for replacing it with a target language term that conveys the same meaning as the source language term in the target language.

Baker (1992:29) refers to cultural equivalence as cultural substitution, which he defines as a translation strategy in which a source language word is replaced with a target language cultural word. Baker points out that the main advantage of this strategy is that the target reader can easily identify the item, which has the currency of his/her own language. Like Newmark, Baker puts more emphasis on the function of the culture specific term to the target language reader, though the equivalent given will be different from the source language term, it will have the same impact on target text reader as the source text term to the source language reader.

Chesterman (in Toury 1980:65) refers to cultural equivalence as filtering and concur with Newmark, Naude and Baker by defining filtering as translation by target language cultural or functional equivalents, so that they conform to target language norms. In addition, Chesterman brings in the idea of functional equivalence in cultural substitution.

Newmark (Newmark 1988:94-103) points out five areas that cultural items come from, that is:

(i) Ecology:

Flora, fauna, wind, plains, hills, honey suckle, rain forest, etc.

(ii) Material culture:

Artifacts, food, clothes, houses and towns, transport.

(iii) Social culture

Work and leisure.

(iv) Organizations, customs, ideas, activities, procedures, concepts, political, social, legal, religious or artistic.

(v) Gestures and habits.

3.3.1 Definitions of Newmark's main cultural categories

3.3.1.1 Ecology

Ecology is the scientific study of the interactions that determine the territorial distribution and organisms (*Oxford Dictionary of Sociology*, 1994: 478). The *Concise Oxford English Dictionary* (1934: 453) defines ecology as the branch of biology, which is concerned with the relations of organisms to one another and to their physical surroundings. The latter dictionary also states that ecology is divided into plant and animal ecology. Another definition is from the *Cambridge International Dictionary of English* (1995:440) which defines ecology as the relationship between the air, land, water, animals, plants, etc usually of a particular area, or the scientific study thereof.

The three definitions indicate that ecology is the study of living organisms, their relationships and the interactions among each other and their relationship with their environment.

3.3.1.2 Material culture

The term material culture refers both to the psychological role, the meaning, that all physical objects in the environment have to people in a particular culture and to the range of manufactured objects that are typical within a social culture and form an essential part of cultural identity (*Oxford Dictionary of Sociology* 1994:230). From the definition, it is evident that material culture is a wide concept that encompasses the role and the meaning of physical and

manufactured objects in people's environment. The definition also links material things with culture by indicating that people perceive and understand material things around them as they have learned about them from their cultural identity.

3.3.1.3 Social Culture

Social culture relates to activities in which people meet and spend time with other people, which usually happen during the time that they are not working. (*Cambridge International Dictionary of English*, 1995:1370). The definition indicates that social culture refers to people meeting to socialize and spent time together. Though the definition indicates that social culture usually happens when people are not working, it also acknowledges the fact that people also do sometimes socialize while working.

3.3.1.4 Organization

An organization is a group of people who work together in a structured way for a shared purpose (*Cambridge International Dictionary of English* 1995:994). The *Compact Edition of the Oxford English Dictionary* (1971:880) defines an organization as a connection and co-ordination of parts of vital functions processes; also the way in which things are organized; the structure of an organized body. From the definitions, an organization can be understood to be a process of co-ordinating or connecting people, organisms or parts to form a structured, purposeful, vital and co-coordinated unit.

3.3.1.5 Gestures

Gesture is a motion of the body or limbs expressive of sentiment or passion; any action of posture intended to express an idea or a passion, or to enforce or emphasize an argument, assertion or opinion (*The Oxford English Dictionary*, 1993:520). The *Compact Edition of the Oxford English Dictionary* (1971:278) defines gesture as the employment of bodily movements, attitudes, expression of countenance, as a means of giving effect to oratory. *Cambridge International Dictionary of English* (1995:590) defines gesture as a movement of head, arm,

hands, etc to express an idea or feeling. The three definitions indicate that gesture is the use of body parts in non-verbal communication or as a way of asserting verbal communication.

3.3.1.6. Custom

The *Compact Edition of the Oxford English Dictionary* (1971:142) defines custom as a habitual or usual practice; common way of acting; usage either of an individual or of a community. While the *Oxford Dictionary of Sociology* (1994:139) defines a custom as an established ways of thinking and acting in societies. The definitions indicate that a custom is people's usual and acceptable way of doing things. They are the things that people do much more often in their everyday lives.

Cultural equivalence as used by the *Natural Science and Technology Dictionary* (2005) will be examined based on Newmark's cultural categories. The *Natural Science and Technology Dictionary* (2005) compilers used cultural equivalence in coining some of the Xitsonga translation equivalent of the English terms as it can be seen from the following examples.

Ecology

a. Fauna

English	Xitsonga
(1) a. Sweet potato	<i>Nhlata</i>
b. Thorn apple	<i>Mudorho</i>
c. Black jack	<i>Muxiji</i>
d. Devil's thorn	<i>Xinhlonhlwana</i>
e. Acacia	<i>Munga</i>
f. Female flower	<i>Xiluva xa xisati</i>
g. Prey	<i>Xihlotiwa</i>
h. Potato plant	<i>Ximila xa zambhala</i>
i. Grass	<i>Byasi</i>
j. Maize	<i>Vele</i>

k. Pine	<i>Muphayini</i>
l. Plantation	<i>Xihlahla</i>
m. Prickly pear	<i>Mudorho</i>
n. Plant type	<i>Muxaka wa ximilani</i>
o. Fig	<i>Nkuwa</i>
p. Fern	<i>Fene</i>

b. Flora

English

- (2). a. Eagle
 b. Elephant
 c. Egyptian goose
 d. Ewe
 e. Giraffe
 f. Hoofed animal
 g. Ostrich
 h. Ram
 i. Goose
 j. Pig
 k. Moorhen
 l. Baboon
 m. Stallion
 n. Vulture
 o. Whale
 p. Wood pecker
 q. Guinea pig
 r. Flock

Xitsonga

- Rikhozi
 Ndlopfu
 Sekwa ra Egipita
 Ntswele ya nyimpfu
 Nhuntlwa
 Xa swinyondwana
 Yimbho
 Belengu
 Sekwa
 Nguluve
 Nyenyana mati
 Mfenhe
 Hanci ya xinuna
Koti
Nkavangaheti
Gogosani
Xikalapitana
Ntlhambi

c. Weather

English

- (3). a. Direct sunlight
b. Air
c. Down winds
d. Draught
e. Dust storm
f. Heat
g. Mist
h. Moderate Weather
i. Thunderstorm
j. Hailstone
k. Gale
l. Rain storm

Xitsonga

Miseve ya dyambu yo kongoma
Moya
Tlhelo ra moya
Moya wo titimela wa le ndlwini
Bubutsa
Ku hisa
Nkungwa
Maxele yo ringanela
Ximbhembhe
Xihangu
Xidzedeze
Ndhambi

d. Soil

English

- (4). a. Clay
b. Poor soil
c. Excess soil
d. Gader soil
e. Geography
f. Loam soil

Xitsonga

Vumba
Misava yo ondza
Misava yo tala ku tlula mpimo
Misava ya xirhapa
Ntivomisava
Nlhava

Material culture

a. Food

English

- (5). a. Cereal
- b. Car
- c. Railway
- d. Green mealie
- e. Mealie rice
- f. Egg yolk
- g. Flour
- h. Fructose
- i. Glucose
- j. Honey comb
- k. Maize porridge
- l. Mealies
- m. Grape sugar
- n. Milk
- o. Nutrition
- p. Orange

Xitsonga

- Rivele ndzhoho*
- Xipandza mananga*
- Xiporo*
- Mpyandlana*
- Majorho*
- Ntsutsu*
- Fulawuri*
- Chukela ra mihandzu*
- Chukela ra mova*
- Xihlenge*
- Vuswa*
- Swifaki*
- Chukela ra madiriva*
- Masi*
- Mphamelo*
- Lamula*

b. Transport

English

- (6). a. Car
- b. Railway
- c. Glider

- Xipandza mananga*
- Xiporo*
- Xihahampfhuka- nkala njhini*

Social Culture

a. Work and leisure

English	Xitsonga
(7). a. Black smith	<i>Mufuri</i>
b. Earpiece	<i>Nhloko ya riqingho</i>
c. Engineer	<i>Muinjhiniyara</i>
d. Factory	<i>Vumakelo</i>
e. Loudspeaker	<i>Xipikara</i>
f. Machinery	<i>Michini</i>
g. Postman	<i>N'waposo</i>
h. Mail	<i>Poso</i>
i. Market	<i>Xavisa</i>
j. Portable radio	<i>Rhadiyo yo rhwaleka</i>
k. Radio	<i>Xiya-ni-moya</i>

The translation equivalents of the English terms in (1) to (7) above are Xitsonga cultural terms. To illustrate the importance of cultural equivalence some of the terms given in the examples are explained below:

Sweet potato has been given the translation equivalent *nhlata*, because a Xitsonga first language speaker knows the meaning of the Xitsonga word *nhlata*. *Nhlata* is not linguistically related to **sweet potato**, but convey the same meaning to a Xitsonga speaker as conveyed by sweet potato in English. The same applies to **thorn apple**, which has been given the translation equivalent *mudorho*. The language speakers are familiar with this term. It gives the language speakers a clear understanding of the term than if for instance, the English term was transferred to Xitsonga.

In trying to answer the question of whether the procedure works for translation and terminology development, Newmark attaches central importance to the strategy of giving functional equivalence and describe it as “the most accurate way of translating, that is, deculturising a

cultural word.” Toury (1995:79) maintains that this strategy result in a ‘loose, free, in some context under translated’ target language version. However, looking at the main aim of compiling a dictionary and translating, that is, bridging a communication gap between a source and a target language, cultural substitution is a useful procedure. The usefulness of cultural equivalence can be seen from the examples in (1) to (4) above, it gives a target language user a term that he/she is familiar with in his/her own language.

If the dictionary compilers had opted for other procedures such as the word-for-word translation rather than cultural equivalence, the following would have resulted:

English	Xitsonga
(8). a. Sweet potato	<i>Zambala ro nyanganya</i>
b. Thorn apple	<i>Apula ra mintwa</i>
c. Vulture	<i>Vhalichara</i>
d. Whale	<i>Wheyili</i>
e. Wood pecker	<i>Xigongondza-mintsandza</i>
f. Thunderstorm	<i>Tilo na moya</i>
g. Cereal	<i>Sirili</i>
h. Car	<i>Kara</i>
i. Black jack	<i>Jeke ya ntima</i>
j. Radio	<i>Rhadiyo</i>
k. Railway	<i>Rhalaweyi</i>
l. Rain storm	<i>Mpfula ya moya</i>
m. Green mealie	<i>Vele ra rihlaza</i>
n. Guinea pig	<i>Nguluve ya giniya</i>
o. Devil’s thorn	<i>Muntwa wa sathana</i>
p. Flock	<i>Fuloko</i>
q. Hail stone	<i>Ribye ra xihangu</i>
r. Meali rice	<i>Rhayisi ya mavele</i>
s. Loam soil	<i>Misava ya lumi</i>
t. Egg yolk	<i>Ntsutsu wa tanda</i>

This type of translation is word-for-word translation. Giving this kind of translation equivalents end up confusing dictionary users, as they do not give the dictionary users a clear meaning of source language terms. This goes against Pochhacker's (2004:14) view who maintains that what the translator can do or should do is to produce a text that is likely to be meaningful to target culture receivers. The target text should conform to the standard of intra-textual coherence, that is, the receiver should be able to understand it, and it should make sense in the communicative situation and culture in which it is received.

The most important advantage of cultural substitution is that it yields concepts with which the target language user may readily identify.

The researcher realizes that there are instances where the dictionary compilers should have opted for cultural equivalence instead of the procedures that they opted for. In such instances, the dictionary compilers opted for strategies that are not clear like cultural equivalence. Some of those equivalents are listed in (9) below:

English	Xitsonga
(9). a. Solution	<i>Soluxini</i>
b. Strip	<i>Xitiripi</i>

These translation equivalents are the least familiar ones in Xitsonga, they are inappropriate equivalents for helping Xitsonga language speakers understand their English counterparts. The researcher feels that to help Xitsonga speakers understand the English terms, the dictionary compilers should have given the following equivalents:

English	Xitsonga
(10). a. Solution	<i>N'oko / Soluxini</i>
b. Strip	<i>Xipandzo / Xitiripi</i>

The first option of the translation equivalents in (10) above are Xitsonga cultural terms, they are the most appropriate equivalents than the ones used by the dictionary compilers. They could give a dictionary user a better understanding of the English terms. In coining the suggested equivalents in (10) above, there is a combination of cultural equivalence with transference. A combination of two or more strategies is very useful in translation and translating as it caters for all generations. The cultural equivalents above are Xitsonga cultural words that the young generation may not be familiar with, so the combination of transference and cultural equivalence ensures that the dictionary is useful to all generations.

The researcher also realizes that the dictionary compilers did combine transference and cultural equivalence in coining some translated equivalents of the English terms in Xitsonga as it is evident from the examples given in (11) below:

English	Xitsonga
(11). a. Cone	<i>Khoni / mpalu</i>
b. Cotton	<i>Khothoni / vutiya</i>
c. Kiln	<i>Khilini / honto</i>
d. Rope	<i>Rhopo / ringoti</i>
e. Shed	<i>Xedhe / dladla</i>

The translated equivalents as given by the dictionary compilers in (11) above will make a dictionary user understand the English terms more clearly. The combination of the strategies will ensure that the dictionary is informative to the dictionary users.

3.4 DESCRIPTIVE EQUIVALENCE

Toury (1980:70) defines descriptive equivalence as the strategy which the translator explains the description and or function of the idea embodied in the source language word, usually resulting in long words. Descriptive equivalence is closely related to functional equivalence, these are two procedures that cannot be easily separated. If a translator cannot adapt a source language term, the best way of translating it is to describe while looking at its function.

Newmark (1988:83) defines descriptive equivalence as a procedure in which the meaning of a culture bound word is explained in several words. Newmark observes that two elements are essential in any explanation that is description and function; descriptive equivalence states the size, colour or composition whereas function clarifies the purpose of a source language culture-specific word. Newmark (1988:83) attaches central importance to the strategy of giving a functional equivalence, which he describes it as “the accurate way of translating.”

As an alternative to equivalence, Reiss and Vermeer (in Naude 2006:27) introduced a functional category into their translation model, and from the model, Vermeer formulated his ‘skopos’ theory in which function or aim (skopos) are key concepts. Vermeer maintains that it must be the intended function (skopos) of the target text that determines the translation methods and strategies and not the function of the source text. Vermeer regards a translation to be a translation when it functions as a text in the target culture; the function of the translation in the target culture determines which aspects of the source text should be transferred to the translation. In this way Vermeer dethroned both the source text norm and the concept of equivalence. For this reason, the source text is no longer the norm in terms of which equivalence is measured.

Nord (1991) adapting Reiss and Vermeer’s functionalist translation theory provided another insight into the interpersonal translation process. She came up with practical steps to be followed in the translation process, that is:

3.4.1 The initiator

In professional practice, translators rarely start working of their own accord. A client usually calls upon them to do so. The client or initiator is a person, or institution that instigates the translation process by approaching a translator because he/she need a certain function (skopos) in the target language (Nord, 991:180).

3.4.2 The translation brief

The translator starts the translation process because he/she has a specific purpose in mind. The purpose of translation is set out in the translation brief which is a set of instructions that the initiator give to the translator on why he/she wants the translation done and for whom.

3.4.3 Analysis of the text

After looking at the translation brief, the process of translation begins. The translator will do the following steps:

Determine the intended target group;

Asses the quality of the article;

Distinguish between denotation and connotation;

Determine the style of the text is it narrative, discursive or articulate;

Formality, is it highly official, informal conversation, slang, taboo language, etc.

3.4.4 Transfer and analysis

The process of constructing a text in the target language now begins. Taking into account the fact that prejudice and ideology does not interfere with a translation, the translator translate the passage. At the end of the translation process, the translator revises the translation to check whether he /she managed to retain the intention of the translation brief (Nord, 1991:6).

In Nord's (1997) view, following the steps above will ensure that a translation is functional in the target language and fulfill the purpose of translating a source text into the target language.

The *Natural Science and Technology Dictionary* compilers used descriptive equivalence as a procedure to try to solve the problem of lack of equivalence between English and Xitsonga. The following are examples of descriptive equivalence as used in the Compilation of the *Natural science and Technology Dictionary*:

English	Xitsonga	Meaning of Xitsonga terms
(12). a. Disinfectant	<i>Xidlaya-switsongwa tsongwana</i>	(That which kill germs)
b. Laboratory	<i>Vuhlhluvelo bya sayense</i>	(Where scientific examinations are made)
c. Baking Powder	<i>Xikukumuxi</i>	(That which raises)
d. Binoculars	<i>Xivonakule</i>	(That which sees far)
e. Canine tooth	<i>Tino ro handzula</i>	(Tearing tooth)
f. Clamp	<i>Ximanyiso</i>	(That which clamps)
g. Drain	<i>Xiphomiso</i>	(That which drains)
h. Fertilizer	<i>Xinonisi</i>	(That which fertilizes)
i. Toaster	<i>Xirimbi</i>	(That which toasts)
j. Bait	<i>Xidyerisi</i>	(That which lures)
k. Balance	<i>Xiringanisi</i>	(That which balances)
l. Cleanser	<i>Xibasisi</i>	(That which cleans)
m. Fireman	<i>Mutimela ndzilo</i>	(One who extinguishes fire)
n. Turpentine	<i>Xisusapende</i>	(That which remove paint)
o .Stigma	<i>Xikangetela-mbewu</i>	(That which accept seeds)
p. Ovary	<i>Xitshikela tandza</i>	(That which lays an egg)
q. Nursery	<i>Vumiriselo</i>	(Where seeds are grown)

For the translation equivalents of the terms above, the dictionary compilers gave descriptive equivalence, as it can be seen from the meaning of the Xitsonga terms, they described the terms focusing on their functions. This is backed by Nord (1997:86) who maintains that the functionalist approach to translation advocates that a translation does not have to be the same as the original because a translation is a “new communicative act that must be purposeful with respect to the translator’s client and readership. The dictionary compilers’ option of descriptive equivalence based on the function of the terms in these examples was an appropriate one. If the dictionary compilers had not opted for descriptive equivalence for coining the translated equivalents of the terms but had instead chosen transference, the following would have resulted:

English	Xitsonga
(13). a. Disinfectant	<i>Disinfekitente</i>
b. Laboratory	<i>Laborotari</i>
c. Baking Powder	<i>Phawuda yo baka</i>
d.. Binoculars	<i>Bayinokhulasi</i>
e. Canine tooth	<i>Tino ra khenayini</i>
f.. Clamp	<i>Tlilempe</i>
g. Drain	<i>Direyini</i>
h. Fertilizer	<i>Fethalayizara</i>
i. Toaster	<i>Thositara</i>
j. Bait	<i>Beyiti</i>
k. Balance	<i>Balansi</i>
l. Cleanser	<i>Tlilenzara</i>
m. Fireman	<i>Wanuna wa ndzilo</i>
n. Turpentine	<i>Thapenthayini</i>
o. Stigma	<i>Xitgima</i>
p. Ovary	<i>Ovhari</i>
q. Nursery	<i>Nezari</i>

However, the question is would this translated equivalents help the dictionary users to understand the terms better? And unfortunately the answer is no, as these equivalents are mostly transference of English terms into Xitsonga. Almost all the translated equivalents that the dictionary compilers opted for are appropriate; the use of descriptive equivalence helped the dictionary compilers in the development of the dictionary.

The researcher also feels that the combination of more than one strategy, for example, transference and descriptive equivalence, would have been helpful in coining the translated equivalents of the terms in (12) and (13) above. Examples of some of the suggested combinations are given in (14) below:

English	Xitsonga
(14). a. Disinfectant	<i>Disiinfakitente / Xidlaya switsongwatsongwana</i>
b. Laboratory	<i>Laborotari / Vuhlahluvela sayense</i>
c. Binoculars	<i>Bayinokhulasi / Xivonakule</i>
d. Clamp	<i>Tlilempe / Xximanyiso</i>
e. Drain	<i>Direyini / Xiphomiso</i>
f. Fertilizer	<i>Fethalayizara / Xinonisi</i>
g. Ovary	<i>Ovhari / Xitshikela tandza</i>
h. Nursery	<i>Nezari / Vumiriselo</i>
i. Toaster	<i>Thositara / Xirimbi</i>
j. Bait	<i>Beyiti / Xidyerisi</i>
k. Balance	<i>Balansi / Xipimi</i>
l. Cleanser	<i>Tlilenzara / Xibasisi</i>

The combination of transference and descriptive equivalence as suggested in (10) above would ensure optimum understanding of the translated equivalents of the English terms.

The researcher also realizes that there are instances where the dictionary compilers used more than one strategy to coin Xitsonga equivalents of the English terms. The compilers combined descriptive equivalent and transference as it is evident from the examples in (15) below:

English	Xitsonga
(15). a. Compass	<i>Khompasi / Xikomba timheho</i>
b. Bicycle	<i>Bayisikiri / Xikanyakanya</i>
c. Microscope	<i>Mayikhurosikopu / Xivonantsongo</i>
d. Parachute	<i>Pharachuti / Xitshanisi</i>
e. Anaemia	<i>Anemiya / Vukalangati</i>
f. Pneumonia	<i>Nyumoniya / Xitlhavi</i>
g. Container	<i>Khontheyina / Xitamelo</i>
h. Generator	<i>Jenereta / Xitumbuluxi</i>
i. Kite	<i>Khayiti / Xihahisiwa</i>

j. Map	Mepe / Xifanisa-matiko
k. Metamorphosis	<i>Methamofosisi / Vuhundzuluxi</i>
l. Refrigerator	<i>Furiji / Xigwitsiri</i>
m. Ruler	<i>Rhula / Xipimo</i>

The translation equivalents of the terms **bicycle** and **parachute** in (15) above are used for illustration. The dictionary compilers translated the term **bicycle** to *xikanyakanya*, which is descriptive equivalence based on the function of a bicycle. They also gave the equivalence *bayisikiri* as an alternative equivalent, which is transference of the English term into Xitsonga. *Bayisikiri* and *xikanyakanya* are synonyms. They are used interchangeably especially by elderly people. The young generation can easily understand *bayisikiri* more than *xikanyakanya*, so the researcher feels that the combination of the strategies is helpful as it caters for all generations. For the term **parachute**, the researcher feels that the combination of the loan word *parachuti* and the descriptive equivalent *Xitshanisi* is helpful than if the compilers had used *xitshanisi* alone. The equivalent *xitshanisi* indicates that a parachute makes things fall, this is not clear as many things can fall, like fruits falling from a tree. If *xitshanisi* was used alone, the dictionary user would get the impression that a parachute make fruits fall from a tree. The loan word *parachuti* combined with descriptive equivalent *xitshanisi* seems to be the most appropriate equivalent for the English term **parachute**.

However, the researcher feels that the dictionary compilers used descriptive equivalence that is not appropriate. The translation equivalent *xitlhavi* given for the term **pneumonia** in (15) above is according to the researcher inappropriate. The term *xitlhavi* refers to pain. The term **pneumonia** should have been given the translated equivalent *vuvabyi bya mahahu*, which according to the researcher is the most appropriate equivalent for the term **pneumonia**. Pneumonia should have been coined as in (16) below:

English	Xitsonga
(16). a. Pneumonia	<i>Nyumoniya / vuvabyi bya mahahu.</i>

The treatment of **pneumonia** in (16) above would help the dictionary user to clearly understand what **pneumonia** is. It would help them understand that, yes, **pneumonia** is pain as it is a sickness but precisely which affect the lungs.

Translation scholars, for example, Newmark(1988) and Baker(1962) recommend employing two or more strategies at the same time. Newmark refers to this procedure as a couplet, triplet or quadruplets according to the number of strategies that are used at the same time to deal with a single problem. Baker (1962:36) maintains that this is a “safer” solution to the problem of lack of translation equivalents between a source and a target language.

According to the language specialists consulted by the researcher, dictionary compilers in some instances used transference when in fact descriptive equivalence could have been a better option. The translation equivalents of the terms in (17) below are used as an example:

English	Xitsonga
(17). a. Terrarium	<i>Therariyamu</i>
b. Pulley	<i>Phuli</i>
c. Vermiculite	<i>Vermiculayiti</i>
d. Seal	<i>Sili</i>
e. Pipette	<i>Pipette</i>

Transference is not working as a translation procedure in the examples in (17) above as the transferred terms still do not convey any meaning in the target language. Describing the terms in relation to their function would have been a better option. The language specialists consulted by the researcher suggest the following descriptive equivalents.

The language specialists feel that the translation equivalents should have been a descriptive equivalent of the English terms in Xitsonga as illustrated in (18) below:

English	Xitsonga	Meaning of Xitsonga term
(18). a. Terrarium	<i>Xihlayisela swikokovi</i>	(Where reptiles are kept)
b. Pulley	<i>Vhilwa ro koka ro rhendzeleka hi bandi</i>	(Pulling wheel that rotates in a belt)
c. Vermiculite	<i>Minerala yo hlayisela swimilana mati</i>	(A mineral that carry water for plants)
d. Seal	Mfunghu wo tiyisisa ku pfaleriwa	(Stamp used to confirm or Guarantee)
e. Pipette	<i>Chupu ro koka na ku pima swihalaki</i>	(A tube used for transporting or measuring liquid)

Making use of descriptive equivalence like the ones suggested in (18) above would have been a better option as it would assist the dictionary user to understand the meaning of the English terms much better than transference.

Xitsonga has been using descriptive equivalence for quite sometimes as it is evident from the word in (19) below:

Xitsonga	Meaning of Xitsonga term
(19). a. <i>Xitsalo</i>	(That which writes)
b. <i>Xipandza-mananga</i>	(That which tear long distances)
c. <i>Xiphahu</i>	(That which scoops)
d. <i>Xiheteleri</i>	(That which ends)
e. <i>Hefemulo</i>	(Breather)
f. <i>Xisivarhumbu</i>	(That which closes the intestines)
g. <i>Madyondza</i>	(That which one learned with)
h. <i>Xihahampfhuka</i>	(That which fly distances)
i. <i>Muteki wa mahungu</i>	(News collector)
J. <i>Mutirhelamfumo</i>	(Government official)
k. <i>Muongori</i>	(One who tend the sick)

l. <i>Madya-tshamile</i>	(One who eat without working)
m. <i>Vuhumadyambu</i>	(Where the sun set)
n. <i>Vupela-dyambu</i>	(Where the sun rise)
o. <i>Xitsalelo</i>	(Where people writes)
p. <i>Xigidavusiku</i>	(One who travels during the night)
q. <i>Xisolahosi</i>	(One who disrupt the king)
r. <i>Matanaswo</i>	(One who come with things)
s. <i>Mafanato</i>	(One who keep quiet with their hardships)
t. <i>Mabahleka</i>	(One who beats while laughing)

The words *xiheteleri*, *xiphahu*, *hefemulo*, *muteki wa mahungu*, and *xisivarhumbu* will be used for illustration of the fact that the words are indeed descriptive. *Xiheteleri* is terminal vowel, it is found at the end of a word. So the naming is based on its function, that is, to end a word. *Xiphahu* is a traditional scooping utensil used to scoop maize meal when cooking pap. Its name is actually a description of its function in Xitsonga. The same applies to *hefemulo*, which is a coma in English. A coma gives a person time to rest and take a breath while reading. Because a reader takes time to breath, in Xitsonga it is called *hefemulo*, that is, that which gives one time to breath. *Muteki wa mahungu* refers to a journalist. The name is a description of the person's job, that is, to collect news. And *xisivarhumbu* refers to a last born in Xitsonga. It is literarily translated to refer to one who closes the intestines. It describes a last born as the one that closed his / her mother's intestines as the mother did not have more kids after him/her. The words are evidence to the fact that the use of descriptive words does not only come with translation but has always been used in Xitsonga. The words are descriptive as they give people or things names in a descriptive way based on their functions.

3.5 MISTRANSLATED TERMS

Some of the translation equivalents given by the dictionary compilers are according to the researcher not appropriate. For those instances, the dictionary compilers opted for inappropriate equivalents when there are terms that could clearly depict the meaning of the terms. Some of those terms are listed in (14) below:

English	Xitsonga	Meaning of Xitsonga term
(20). a. Water weed	<i>Nhlakulo</i>	(Removal of weeds)
b. Young	<i>N'wana</i>	(Baby)
c. Woody stem	<i>Nsinya</i>	(Tree)
d. Smear	<i>Tshuva</i>	(Scratch)
e. Sisal	<i>Byewu</i>	(Rope made with a bark of a tree)
f. Score	<i>Tsema</i>	(Cut)
g. Foetus	<i>Nyimba</i>	(Pregnancy)
h. Fibre	<i>Byewu</i>	(A rope made with a bark of a tree)
i. Rough	<i>Magojigoji</i>	(Pot holes)
j. Plant life	<i>Swimila swa ndhawu</i>	(Plants of an area)

These translation equivalents are not appropriate; they will mislead the dictionary users, as they are mistranslations of the English terms. The dictionary user will think that he/she can replace for example the term **young** with *n'wana* (baby), **score** with *tsema* (cut) **sisal** with *byewu* (rope). The terms *sisal*, *smear*, *rough*, *young*, *score* and *foetus* are used for illustration:

The translation equivalent of the term *sisal* is problematic. The equivalent given to the term *sisal* as *byewu* is inappropriate as *byewu* refers to a rope made from a bark of some trees, like **mopani** tree, which is used to tie things like firewood in the veld. The translation equivalent is misleading as there is a term in Xitsonga used to refer to *sisal*, which is *xikwenga*. The same applies to *smear* which is given the equivalent *tshuva*. *Tshuva* refers to scratching a part of the body that is itchy, while *smear* in Xitsonga is *tota*. The term **rough** is also a mistranslation as the dictionary compilers translated it as *magojigoji*. *Magojigoji* refers to potholes in Xitsonga. The most appropriate equivalent for **rough** in Xitsonga is *khwaxa*. Equivalents like these ones would mislead a dictionary user when in fact there are terms available in Xitsonga to give appropriate equivalents to the English terms.

Young has been given the equivalent *n'wana*. **Young** can refer to both *n'wana* and *ntsongo* in Xitsonga depending on context. The dictionary compilers should have included *ntsongo* as an alternative equivalent of the term **young**. The translation equivalent of *score* as *tsema* is also

problematic. *Tsema* means to cut in Xitsonga. **Score** should have been given the equivalent *howisa*, which is the appropriate Xitsonga term for the English term **score**. The same applies to **foetus**, which is given the equivalent *nyimba*. The appropriate equivalent that the dictionary compilers should have given is *xitumbulukwana*.

According to the researcher and the language specialists, the dictionary compilers should have given the following equivalents for the terms:

English	Xitsonga
(21). a. Water weed	<i>Nhova ya le matini</i>
b. Young	<i>N'wana / ntsongo</i>
c. Woody stem	<i>Xitshindzi xo tiyela</i>
d. Smear	<i>Tota</i>
e. Sisal	<i>Xikwenga</i>
f. Score	<i>Howisa</i>
g. Foetus	<i>Xitumbulukwana</i>
h. Fibre	<i>Mampfipfi</i>
i. Rough	<i>Khwaxa</i>
j. Plant life	<i>Vutomi bya swimila</i>

These are appropriate equivalents of the English terms. They are able to give the target language user the same meaning as the source language terms do to the source language user.

3.6 CONCLUSION

In this chapter, an attempt was made to look at cultural equivalence and descriptive equivalence as some of the procedures that can be employed to solve the problem of lack of equivalence in translation especially of culture specific terms. It became evident that there is a close relationship between language and culture, which makes it difficult to almost impossible to translate culture specific terms employing word-for-word translation as the equivalents end up being meaningless to the receiving culture. Looking at the main aim of translating, that is, to enable communication

between members of different languages and cultures, cultural equivalence and descriptive equivalence are essential procedures in translation. Giving a cultural equivalent to a cultural term and giving descriptive equivalence based on the function of the term can be said to be the best way of translating. Another useful strategy is the combination of two or more strategies to render culture specific items more precisely.

In this chapter, an attempt was also made to look at some mistranslated terms in the Natural Science and Technology Dictionary. Suggestions of appropriate equivalents of the selected mistranslated words were given.

CHAPTER 4

PARAPHRASING AND THROUGH TRANSLATION

4.1 INTRODUCTION

Here we are faced with the problem of lack of translation equivalents of English Scientific and Technological terms in African languages in general and Xitsonga in particular. Several translation procedures that are used to solve the problem as experienced during terminology development have been discussed in this research. In this chapter paraphrasing and through translation as procedures used in the compilation of the *Natural Science and Technology Dictionary (2005)* will be examined. Also in this chapter, the treatment of polysemes in the *Natural Science and Technology Dictionary (2005)* will be examined.

4.2 PARAPHRASING

Cambridge International Dictionary of the English Language (1995:1310) defines paraphrasing as “one’s own rendition of essential information and ideas expressed by someone else, presented in a new form.” The dictionary highlights the fact that paraphrasing is the presentation of information in a new form.

According to Baker (1992:62), “paraphrase is a restatement of a text or a passage in another form or other words, often to clarify the meaning.” Like the *Cambridge International Dictionary of English*, Baker’s definition also emphasizes that in paraphrasing information is restated in a new format, which might be different from the original form. In addition, Baker also highlights the fact that paraphrasing is used to clarify meaning.

The Compact Edition of the Oxford English Dictionary (1971:1230) defines paraphrasing as “a restatement of a text or passage giving the meaning in another form as clearness, rewording.” The dictionary also stresses the restatement and the fact that the reason for paraphrasing is to clarify meaning.

Newmark (1988:84) defines paraphrasing as an explanation of the meaning of the segment of the text. Newmark distinguishes between two separate strategies, neutralization and paraphrase. The distinction between the two procedures occurs on linguistic level: neutralization means paraphrasing at the word level, whereas paraphrasing signifies rewording of meaning at a higher level.

Baker (1992:64) highlights the importance of paraphrasing when she explains it as a valuable skill especially in research and the writing of long passages and as a better option than quoting. Paraphrasing is also said to help to avoid the temptation to quote too much. Baker also maintains that the mental process required in successful paraphrasing helps to grasp the full meaning of the original.

Mabasa (2006:239) maintains that “there is a high occurrence of paraphrasing as a term formation when terms are being developed in isolation, as opposed to the translation of terms with a primary objective of being used in translation equivalent that can be directly inserted into a target text that is being translated.” Mabasa (ibid) further states that when developing terms outside the context of a particular translation task, it is highly probable that the term developers would rather opt for maximizing transparency and comprehensibility.

The Natural Science and Technology Dictionary compilers used paraphrasing as a term formation strategy as it is evident in (1) below:

English	Xitsonga	Meaning of Xitsonga term
(1) a. Anhydrous	<i>Xo pfumala mati</i>	(That which has no water)
b. Arachnida	<i>Ndyangu wa switsotswana</i>	(Family of insects)
c. Arthropod	<i>Xikala –longo</i>	(Without a backbone)
d. Artificial	<i>Swo tumbuluxiwa hi vanhu</i>	(Man-made)
e. Autotrophic	<i>Xo tiendlela swakudya</i>	(That which makes its own food)
f. Beach	<i>Rigiyagiya ra lwandle</i>	(Sea ridge)
g. Botanist	<i>Mutiva swimila</i>	(One who knows plants)

h. Bract	<i>Tluka ra xiluva</i>	(Leaf of a Flower)
i. Bulb	<i>Rhanga ra xipima mahiselo</i>	(Tuber that measures heat)
j. Canister	<i>Xibokisana xa nsimbi</i>	(An iron box)
l. Carrion	<i>Nyama yo bola</i>	(Rotten meat)
m. Diabetic	<i>Muvabyi wa chukela</i>	(Sugar patient)
n. Ebony	<i>Mhandze ya xipalatsi</i>	(Wood form an ebony)
o. Electrocutation	<i>Rifu hi gezi</i>	(Death from electricity)
p. Ergonomics	<i>Malulamisele ya mbangu</i>	(Preparation of the environment)
q. Evaporate	<i>Ku haha ka swihalaki</i>	(Flying of liquids)
r. Flammable	<i>Xo hiseka hi ku olova</i>	(That which burns easily)
s. Premature	<i>Xo humelela nkarhi wu nga si fika</i>	(That which happens before its time)
t. Malleable	<i>Xo olova ku cinca xivumbeko</i>	(That which can be easily changed)
u. Nectar	<i>Vulombe bya xiluva</i>	(Honey of a flower)
v. Flexible	<i>Xo olova ku khotseka</i>	(That which can bend easily)
w. Fodder	<i>Swakudya swa swihari</i>	(Animal food)
x. Gull	<i>Nyenyana ya lwandle</i>	(Sea animal)
y. Online	<i>Ku nghena eka netiweke</i>	(To enter the network)
z. Orchard	<i>Xirhapa xa mihandzu</i>	(Fruit garden)
aa. Saddle	<i>Xivelekelo xa nxikwa</i>	(Womb of an earth-worm)
bb. Snout	<i>Nhompfu yo leha</i>	(Long nose)
cc. Puparium	<i>Xisaka xa n'wampfokorho</i>	(Nest of a cocoon)
dd. Recreation	<i>Ku tumbuluxa nakambe</i>	(To create again)
ee. Scientist	<i>Mutivi wa sayense</i>	(One who know science)

When term developers are confronted with a new concept that cannot be easily expressed in the target language, they exhaust all translation procedures to try to get the most comprehensible target language term. The use of paraphrasing as a term formation procedure by the *Natural Science and Technology Dictionary* (2005) compilers can be ascribed to their need to explain

terms in a very clear way to the dictionary user. The researcher feels that this aim has been attained in the coinage of the translation equivalents of the terms in (1) above. From the translated equivalents in (1) above, the terms autotrophic, diabetic, fodder, flexible and scientist will be used for illustration:

The translation equivalent given to the term **autotrophic** is a short explanation of what autotrophic refers to. **Autotrophic** is given the equivalent *xo tiendlela swakudya*, (something that makes its own food). The term **diabetic** is translated to *muvabyi wa chukela*, in Xitsonga, which is also an explanation of the term diabetic, that is a person suffering from sugar diabetes. The same applies to the term **fodder**, which is translated to *swakudya swa swihari* in Xitsonga which is a paraphrase as a short explanation of the term is given instead of transferring the English term into Xitsonga. The term **flexible** has been given the equivalent *xo olova ku khotseka* which is also an explanation of the English term in Xitsonga. The same applies to the term **scientist**; the translation equivalent *mutivi wa sayense* is an explanation that is more understandable to the dictionary user than the transfer of the English term scientist into Xitsonga. The explanation of the terms has given a translation equivalent that is easy to understand than transferring the English term into Xitsonga

A translation procedure that could have been used instead of paraphrasing is transference in which a source language term is transferred into the target language. Had the dictionary compilers opted for transference, the translated equivalents in (2) below could have been given.

English	Xitsonga
(2) a. Anhydrous	<i>Anihayidirasi</i>
b. Arachnida	<i>Arakinida</i>
c. Arthropod	<i>Anithrophodi</i>
d. Artificial	<i>Atifixiyali</i>
e. Autotrophic	<i>Otothirofiki</i>
f. Beach	<i>Bichi</i>
g. Botanist	<i>Bothanisiti</i>
h. Bract	<i>Burakiti</i>

i. Bulb	<i>Balubu</i>
j. Canister	<i>Khanisitara</i>
k. Carrion	<i>Khariyoni</i>
l. Diabetic	<i>Dayibetiki</i>
m. Ebony	<i>Iboni</i>
n. Electrocutation	<i>Elekitirokhuxini</i>
o. Ergonomics	<i>Egonomikisi</i>
p. Evaporate	<i>Evhaporexini</i>
q. Flammable	<i>Fulamebulu</i>
r. Premature	<i>Phirimachuwa</i>
s. Malleable	<i>Malebulu</i>
t. Nectar	<i>Nekitara</i>
u. Flexible	<i>Fulekisibulu</i>
v. Fodder	<i>Foda</i>
w Gull	<i>Gali</i>
x. Online	<i>Onilayini</i>
y. Orchard	<i>Ochadi</i>
z. Saddle	<i>Sedlili</i>
aa. Snout	<i>Sinowuti</i>
bb. Puparium	<i>Pyupharyamu</i>
cc. Recreation	<i>Rhikhiriexini</i>
dd. Scientist	<i>Sayentisiti</i>

The researcher feels that the translated equivalents of the terms as suggested in (2) above would not have been the most appropriate equivalents of the English terms. The terms would not have been clearly translated with transference as a procedure like they are with paraphrasing. Transference is a useful procedure in translation and translating, however, translation scholars such as Mphahlele (2004), Naude (2006) and Newmark (1988) maintain that transference has to be used as last resort after all else has failed. Therefore, in this case the researcher feels that paraphrasing is the best option that the dictionary compilers could have used.

There are instances that the dictionary compilers used transference when according to the researcher, paraphrasing would have been a better option. Some of such translation equivalents are listed in (3) below:

English	Xitsonga
(3) a. Pelican	<i>Pelikheni</i>
b. Parallax	<i>Pharalakisi</i>
c. Panda	<i>Panda</i>
d. Terminal	<i>Theminala</i>
e. Motif	<i>Motifi</i>
f. Beech	<i>Mubichi</i>
g. Calipers	<i>Tikhalipara</i>
h. Finch	<i>Finci</i>
i. Font	<i>Fonto</i>
j. Haemoglobin	<i>Hemaglobini</i>
k. Pinion	<i>Piniyoni</i>
l. Vermiculite	<i>Vhemikhulaiti</i>
m. Terrarium	<i>Therariyamu</i>
n. Seal	<i>Sili</i>
o. Riboflavin	<i>Rhibofulavhini</i>
p. Relay	<i>Rheleyi</i>
q. Radish	<i>Rhadixi</i>
r. Pipette	<i>Phiphete</i>
s. Loquat	<i>Lokhwati</i>
t. Carton	<i>Kathoni</i>

The translation equivalents of the terms in (3) above are problematic. The equivalents do not give the dictionary user a clear understanding of the English terms. The transferred terms do not convey the meaning of the English terms to the target language user. The researcher feels that

paraphrasing could have been a better option. The dictionary compilers should have coined the equivalents of the terms as suggested by the researcher in (4) below:

English	Xitsonga
(4). a. Pelican	<i>Xinyenyana lexikulu</i>
b. Parallax	<i>Xilo loko xi langutiwa hi matlhelo yo hambana</i>
c. Panda	<i>Bere ya ntima na ku basa ya le China</i>
d. Terminal	<i>Xale makumu</i>
e. Motif	<i>Vutshila byo khavisa swilo</i>
f. Beech	<i>Nsinya lowukulu wa ringoti ro olova</i>
g. Calipers	<i>Tinsimbi to seketela nenge wa munhu</i>
h. Finch	<i>Muxaka wa swinyenyana swo dya timbewu</i>
i. Font	<i>Sayizi ya mathayipele</i>
j. Haemoglobin	<i>Phurotheni yo fambisa ngati yo tenga emirini</i>
k. Pinion	<i>Tinsiva ta timpapa ta swinyenyana</i>
l. Vermiculite	<i>Minerali yo khomela swimila mati</i>
m. Terrarium	<i>Nghilazi yo hlayisela swihari/swimila swa le matini</i>
n. Seal	<i>Ku lemela swilo</i>
o. Riboflavin	<i>Xinyika matimba xo kumeka emasini, xivindzi na Matsatvu ya rihlaza</i>
p. Relay	<i>Ntlawa wa vatsutsuma hi ku wisisana</i>
q. Radish	<i>Rimitsu ro tshwuka ro dyiwa ri nga swekiwanga</i>
r. Pipette	<i>Chupu ro koka swihalaki</i>
s. Loquat	<i>Muhandzu wa xitshopani wa xivumbeko xa tandza wa le Asia</i>
t. Carton	<i>Xitamelo xo vevuka xa khalibodo</i>

Alternatively, the dictionary compilers could have combined both transference and paraphrase in coining the translated equivalents as suggested by the researcher in the example in (5) below:

English	Xitsonga
(5). a. Pelican	<i>Pelikheni / Xinyenyana lexikulu</i>
b. Parallax	<i>Pharalakisi / Xilo loko xi langutiwa hi matlhelo yo hambana</i>
c. Panda	<i>Panda / Bere ya ntima na ku basa ya le China</i>
d. Terminal	<i>Theminala / Xa le makumu</i>
e. Motif	<i>Motifi / Vutshila byo khavisa swilo</i>
f. Beech	<i>Mubichi / Nsinya lowukulu wa ringoti ro olova</i>
g. Calipers	<i>Tikhalipara / Nsimbi yo seketela nenge wa munhu</i>
h. Finch	<i>Finci / Muxaka wa swinyenyan swo dya timbewu</i>
i. Font	<i>Fonto / Sayizi ya mathayipele</i>
j. Haemoglobin	<i>Hemaglobini / Phurotheni yo fambisa ngati yo tenga emirini</i>
k. Pinion	<i>Piniyoni / Tinsiva ta timpapa ta swinyenyana</i>
l. Vermiculite	<i>Vhemikhulaiti / Minerali yo khomela swimila mati</i>
m. Terrarium	<i>Therariyamu / Nghilazi yo hlyisela swihari/swimila swa le matini</i>
n. Seal	<i>Sili /Kku lemela swilo</i>
o. Riboflavin	<i>Rhibofulavhini / Xi nyika matimba xo kumeka emasini, xiuindzi na Matsatvu ya rihlaza</i>
p. Relay	<i>Rheleyi / Ntlawa wa vatsutsuma hi ku wisisana</i>
q. Rhadish	<i>Rhadixi / Rimitsu ro tshwuka ro dyiwa ri nga swekiwanga</i>
r. Pipette	<i>Phiphete / Chupu ro koka swihalaki</i>
s. Loquat	<i>Lokhwati / Muhandzu wa xitshopani wa xivumbeko xa tandza le Asia</i>
t. Carton	<i>Kathoni / Xitamelo xo vevuka xa khalibodo</i>

The combination of transference and paraphrasing as in (5) above would maximize the Dictionary user's understanding of the English terms. Newmark (1988) recommends the combination of two or more strategies and regards it as the "best way" of translating.

However, the researcher also realizes that the dictionary compilers did combine transference and paraphrase as it is evident from the translation equivalents of the terms in (6) below:

English	Xitsonga
(6) a. Anatomy	<i>Anathomi / Ntivo-swirho</i>
b. Aquarium	<i>Akhwariyamu / Vuhlayiselo bya swa le matini</i>
c. Cutlery	<i>Khatlilari / Swo dya hi swona</i>
d. Download	<i>Dawuniloda / Hundzisela mahungu</i>
e. Ethane	<i>Ethene / Pulasitiki ya ntolovelo</i>
f. Flour	<i>Fulawuri / Mapa ya koroni</i>
g. Portfolio	<i>Photifoliyo / Nhlengele wa mintirho</i>
h. Siamese twins	<i>Mahahlwa ya siyamese /Mmahahlwa yo khomana</i>

The combination of transference and paraphrasing in (6) above will ensure that the dictionary user understands the meaning of the terms. If one procedure for example, transference, fails to convey the meaning more clearly, the combination of transference and paraphrasing helps the dictionary user to understand the terms more clearly.

4.3. THROUGH TRANSLATION

Newmark (1988:88) defines through translation as the literal translation of common collocations, names of organizations, the components of compound and phrases.

Naude (2006:56) provides a list of different types of names and suggest how the names can be translated. They are names of objects, geographical names, eponyms and also included in the list is collocation. The strategy that Naude recommends for the translation of these names is through translation, which may at times be combined with descriptive or functional equivalence. Some of the names are discussed below:

4.3.1 Names of objects

Naude (2006:57) maintains that the names of objects generally allude to trademarks or owners. These labels are generally transferred directly into the target text. Naude suggests that such names may be transferred into the target language, and if the trade mark is not well-known in the target culture, an explanation can be added so that the target reader will know exactly what the reference entails. For example, the names of objects in (7) below are transferred from English to Xitsonga:

English	Xitsonga
(7) a. Computer	<i>Khompyuta</i>
b. Calculator	<i>Khalikhuleta</i>
c. Calendar	<i>Khalendara</i>

4.3.2 Geographical names

According to Naude (2006:58), “when geographical names appear in a text, it is important that the translator should look up all the terms in recent atlases for the purpose of obtaining the appropriate term that is used. In South Africa with its multitude name changes, it is important that the translator use the most recent terms.” Naude (2006:55) proposes that when it comes to the translation of geographical names, translators must avoid being involved in political disputes pertaining to place names. Therefore, a translator must use the official name of an area. For example, the change of names of places in South Africa as it can be seen in (8) below:

Old names	New names
(8) a. Ellissass	Lephalale
b . Potgietersrus	Mokopane
c. Louis Trichardt	Makhado
d. Pietersburg	Polokwane
e. Pretoria	Tshwane
f. University of the North	University of Limpopo

If such names appear in a translation, the translator will use the official names of the place, for example, Lephalele and Mokopane will be Lephalele and Mokopane in both English and Xitsonga.

4.3.3. Eponyms

Concise Oxford English Dictionary (1934:480) defines an eponym as a word or a name derived from a person or a person after whom a discovery, invention is made. Eponyms may refer to a person's idea or qualities, for example, Chomskyan (it originates from a distinguished scholar by the name of Naom Chomsky), the translator then would have to add these to the translation because language users in the target culture may not understand the implications of the eponym.

Webster's encyclopedic Unabridged Dictionary of the English Language (1934:315) defines an eponym as a word derived from the name of a real, fictional, mythical or spurious character or a person. According to these definitions, an eponym is a word derived from someone or from something.

Cambridge International Dictionary of the English Language (1995:294) brings another meaning of the term eponym by defining it as a "someone or something whose name is or thought to be the source of the name of something. This definition shows that in addition to a name derived from someone, an eponym can also refer to the source from which someone or something is named. For the translation of eponyms, Naude (2006:60) maintains that eponyms refer directly to a person and are as such transferred to the target language unchanged.

4.3.4 Acronyms and Names of organizations

The *Concise Oxford English Dictionary* (1934:12) defines an acronym is a word formed from the initial letters of other words. Naude (2006:60) asserts this by maintaining that an acronym is a word formed from the initial letters of other words. The definitions indicate that an acronym is a word made up of the initial letters of other words.

For acronyms, usually the first letter for each of the words of a name is used to form a new word, and the generated word then becomes an international term. Most acronyms are usually known in the target language and must as such be transferred into the target language. Newmark (1988: 149) maintains that acronyms may be transferred together with a detailed explanation depending on the target readership. Naude (2006:59) maintains that names of organization are transferred into the target language unchanged. The *Natural science and Technology Dictionary* (2005) compilers followed Newmark’s suggestion for the equivalent of WWW as it can be seen in the example in (9) below:

English	Xitsonga
(9) a. WWW	WWW / <i>Webe ya misava angarhelo</i>

For the translation equivalent in (9) above, the dictionary compilers used through translation by transferring the acronym **WWW** into Xitsonga unchanged. The dictionary compilers also combined through translation with descriptive equivalence by giving the optional equivalent *webe ya misava angarhelo*.

4.3.5 Collocation

Concise Oxford English Dictionary (1934: 291) defines collocation as the habitual juxtaposition of a particular word with another word or words with a frequency greater than chance, the action of placing things together according to some system or order. This is backed by Mager et al (1974: 55) when they define collocation as a sequence of words or terms that co-occur more often than would be expected by chance.

According to Naude (2006:62), “Collocation refers to the tendency of certain words to co-occur regularly with other words in a given language, for example, cheque will co-occur more readily with lexical items such as bank, money, payment etc.” *Webster’s Eencyclopedia Dictionary of the English Language* (1934:285) defines collocation as an arrangement or juxtaposition of words or other elements, especially those that commonly co-occur. From the definitions, collocation refers to the systematic co-occurrence of words in a language.

Baker (1992: 5) highlights some problems associated with collocation in translation, some of the problems are discussed below:

- Collocation patterns in the source language that are not typical of the target language. Baker encourages translators to avoid transferring such collocation patterns to the target language (Baker, 1992:55).
- A translator misinterpreting the collocation in the source language as a result of the influence of his/her mother tongue. This generally happens when a collocation in the source language appears familiar because its form coincides with a general collocation in the target language (Baker, 1992:26)
- Baker (1992:57) maintains that there can be tension between accuracy and naturalness. She maintains that the objective of a translator is to generate collocations that are typical of the target language, but which at the same time convey the meaning of collocation in the source language. Accuracy is important in translation; however, it is also important to use the general patterns of the target language that are known to the readers who will be using the translation.

Naude (2006:62) maintains that collocation occurs in particular in Social Sciences and computer language. Computer terms are generally translated by a recognized term in the target language. If such a term does not exist in the target language, for clarification it can be used together with a functional or descriptive equivalence.

4.4 THE TREATMENT OF POLYSEMES

Webster's Encyclopedic Unabridged Dictionary of the English Language (1934: 1010) defines polysemy as the capacity of a word or phrase to have multiple meanings. Mager and Mager (1974: 102) defines polysemy as a word or phrase with multiple, related meanings.

According to *Cambridge International Dictionary of the English Language* (1995:1405), polysemy refers to a word that has two or more similar meanings. The definitions indicate that

polysemy refers to lexical ambiguity, that is, the ambiguity of an individual word or phrase that can be used in different context to express two or more different meanings.

The dictionary compilers at times give a single equivalent to polysemes, leaving the other meaning of a term out as it is evident in the translation equivalents given to the terms in (10) below:

English	Xitsonga
(10) a. Sterilize	<i>Ku dlaya switsongwatsongwana</i>
b. Wear	<i>Nhlakalo</i>
c. Well	<i>Xihlovo</i>
d. Boil	<i>Vila</i>

The treatment of the term **sterilize** in (10) above is problematic as the term is polysemous. In addition to the translated equivalent *ku dlaya switsotswana*, given by the dictionary compilers, which refers to sterilizing with the aim of killing germs, the other polysemous meaning of the term sterilize, should have been given, that is, to stop reproduction. The term **wear** is also polysemous as it can refer to both *nhlakalo* which is the equivalent given by the dictionary compilers which refers to being worn out and *ku ambala* meaning to wear clothes; this second meaning has been left out. While **well** can refer to both *xihlovo*, that is a well in which water can be drawn and *ku nga vabyi* which refers to not being sick. **Boil** is also polysemous as it can refer to the boiling of liquid for example water, which relates to the equivalent given by the dictionary compilers as *vila*. In addition, boil can also refer to a swollen part of the body which is referred to as *tshumba* in Xitsonga. Giving one meaning of a polysemous term is problematic as dictionary users will think that they can replace terms with equivalents that are polysemous in all contexts. For example, for the term **well**, dictionary users might think that they can give *xihlovo* as equivalent in all contexts, while in actual fact **well** may be referring to where one can draw water, that is *xihlovo* as well as being in a good state of health which is *ku nga vabyi*. To maximize the dictionary user's understanding of polysemous terms, the dictionary compilers should have treated the terms as in (11) below:

English	Xitsonga
(11) a. Sterilize	<i>Ku dlaya switsongwatsongwana</i> <i>Ku dlaya mbeleko</i>
b. Wear	<i>Nhlakalo</i> <i>Ambala</i>
c. Well	<i>Xihlovo</i> <i>Ku nga vabyi</i>
d. Boil	<i>Vila</i> <i>Tshumba</i>

The translated equivalents suggested by the researcher in (11) above will give the dictionary user an understanding of the fact that to sterilize can refer to both killing germs, (*ku dlaya switsongwatsongwana*) and to stop reproducing (*ku dlaya mbeleko*). The same applies to **wear** and **well**; the dictionary user will know that the terms have polysemous meanings, and may as such not use them as equivalents of the English terms in all contexts.

However, the researcher realises that the dictionary compilers did treat polysemes appropriately by giving all the meanings associated with a single term. The terms in (12) below are examples of cases where terms are given polysemous meanings:

English	Xitsonga
(12) a. Shed	<i>Xedhe</i> <i>Dzuvula</i>
b. Scale	<i>Gegetsu</i> <i>Xikalo</i>
c. Nail	<i>Xipikiri</i> <i>N'wala</i>
d. Mould	<i>Foromo</i> <i>Mfurhe</i>
e. Mine	<i>Cela</i> <i>Mayini</i>

f. Match	<i>Mecisi</i> <i>Fanisa</i>
g. Lobe	<i>Rindlebyana</i> <i>Xirhendzewutana xa tluka</i>
h. Land	<i>Misava</i> <i>Phatsama</i>
i. Gut	<i>Khwiri</i> <i>Humesa</i>
j. Crop	<i>Chelele</i> <i>Xirin 'wa</i>
k. Coat	<i>Jazi</i> <i>Penda</i>
l. Branch	<i>Rhavi</i> <i>Avana</i>
m. Blade	<i>Xikaringana</i> <i>Tluka</i>
n. Brush	<i>Burachi</i> <i>Xikhwatana</i>
o. Earth	<i>Misava</i> <i>Xitimula gezi</i>
p. Face	<i>Xikandza</i> <i>Vuhenhla bya</i>
q. Finger	<i>Xiphemu xa misava</i> <i>Rintiho</i>
r. Fly	<i>Nhongani</i> <i>Haha</i>
s. Plane	<i>Riandlalo</i> <i>Mbatlo</i>
t. Swallow	<i>Mbewulana</i> <i>Mita</i>
u. Vessel	<i>Xikepe</i>

Xikhoma swihalaki

v. Weaver

Nyenyana

Muluki

The researcher feels that the treatment of polysemes in (12) above is appropriate.

For the term **scale** for example, the translated equivalents *gegetsu* and *xikalo* are given. *Gegetsu* refers to the scales of amphibians like a fish in Xitsonga and the other meaning of scale (*xikalo*) refers to a measuring utensil, so the dictionary user will know where to use *gegetsu* or *xikalo* to replace the term scale. The same applies to the term **match**; it can refer to both *mecisi* and *fanisa* in Xitsonga. *Mecisi* is the match used to make fire while *fanisa* refers to matching things to look for similarities and differences. For the term **shed** the Xitsonga equivalents *xedhe* and *dzuvula* are given. *Xedhe* refers to a place where things are kept and *dzuvula* is the other meaning of the term shed that refers to shedding as in a snake shedding its old skin or a tree shedding its leaves. The researcher feels that the treatment of these polysemes is appropriate as it inform the dictionary user of the several meaning of the English terms. The dictionary compilers maximized the explanation by indicating whether the equivalent is noun or a verb and by giving short explanations of the different equivalents of the terms to indicate that the meaning depends on context.

Had the dictionary compilers given one meaning of the polysemous terms, the Dictionary users would be confused. For illustration the terms crop, branch, swallow, coat, nail and land will be used in (13) below:

English	Xitsonga
(13) a. Crop	<i>Chelele</i>
b. Branch	<i>Rhavi</i>
c. Swallow	<i>Mbewulana</i>
d. Coat	<i>Jazi</i>
e. Land	<i>Misava</i>

The translated equivalents as suggested by the researcher in (11) above would have been inappropriate. It would have left out the other meaning of the English terms. The dictionary users would think for example that they could replace the term **crop** with *xiri'nwa* in all contexts, while in fact crop can also refer to *chelele* in Xitsonga, which is part of the body of a chicken and other bird species. The term **branch** can refer to (*rhavi*) in Xitsonga as in a tree branch and the second meaning of branch is *avana* as in separation for example, an organization or a party into branches. Giving all the meanings attached to the term branch would make the dictionary user aware that they cannot replace a branch of a tree with *avana*. The same applies to the term **swallow** which has a polysemous meaning; it can refer to a type of a bird which is called *mbewulana* in Xitsonga and to swallowing of food which in Xisonga is called *mita*. **Coat** can have the equivalent *jazi* referring to a jacket and *penda* meaning to paint. While **land** can be given the equivalent *misava* referring to land that can be ploughed etc and its other translated equivalent is *phatsama* as in landing on the ground. So the researcher feels that the giving of all polysemous meanings of the English terms in Xitsonga will help the dictionary users to use the terms in appropriate context in the target language.

4.5 CONCLUSION

In this chapter, the researcher attempted to look at paraphrasing and through translation as procedures used in coining the translated equivalents for Natural Science and Technological terms. The observation is that paraphrasing and through translation are essential procedures in term formation process. Through translation is essential as it helps terminologists and dictionary compilers to transfer terms that are not easy to translate into another language, like the names of objects. Paraphrasing is also a useful procedure as it maximizes the dictionary user's understanding of terms that would be complex to translate. The researcher also observed that the dictionary compilers sometimes opted for other translation procedures when in fact paraphrasing could have been a better option. It became evident that the combination of more than one procedure can be helpful as well, and the fact that translation equivalents more especially of polysemous terms, depend on context.

CHAPTER 5

CONCLUSION

5.1 INTRODUCTION

The aim of this chapter is to give the conclusion of the study. This will be achieved by giving a summary of each chapter of the study, as well as suggesting recommendations regarding the findings of this research.

5.2 SUMMARY

Chapter one serves as an introduction of the study. The chapter provides background to the problem, the aim of the study, significance of the study, the rationale of the study and methodology. In the chapter, the delimitation of the study, different translation procedures and views of different translation theorists are given, namely, Catford (1965), Nida and Taber (1969), Mthombeni (2005), Mbatha (2005) and Mphahlele (2001).

Chapter two deals with transference, reduction and expansion and shift/transposition as translation procedures used in the compilation of the *Natural science and Technology dictionary (2005)*. Examples have been drawn from Xitsonga grammar books to indicate that changes such as reduction and expansion, shift/transposition do occur in grammar, like verbs changing to nouns, gerund and compounding occur.

Chapter three evaluates how descriptive equivalence was used to try and solve the problem of lack of equivalents of the English terms in Xitsonga. The chapter also highlights the relationship between language and culture, and how this relationship influences translation and coining equivalents for culture specific terms. The chapter discusses cultural categories that are pointed out in Newmark (1988), namely, ecology, material culture, social culture, organization, gestures and customs and evaluates cultural equivalence in the dictionary based on Newmark's cultural categories. In the chapter, terms that are given inappropriate equivalents are also discussed.

Chapter four evaluates the use of translation procedures, paraphrasing and through translation, which are useful procedures in translation and translating. The chapter highlights the usefulness of through translation especially for the translation of names, such as names of objects, geographical names, names of organizations and for collocation. The chapter also deals with the treatment of polysemes in the dictionary.

5.3 FINDINGS

The findings of the study are listed below:

- Reduction and expansion and shift /transposition are useful not only for translation and compilation of dictionaries, but in Xitsonga grammatical rules that govern changes of verbs to nouns, gerund and compounding.
- It is not easy to translate culture specific concepts if the source language and target language are genealogically different as English and Xitsonga are. For culture specific concepts, dictionary compilers opted for cultural equivalence as a procedure. They used Xitsonga cultural words that are not linguistically related to the English terms but convey the same meaning to a Xitsonga speaker as the English terms do to an English speaker.
- The dictionary compilers used paraphrasing to solve the problem of lack of equivalents for English scientific and technological terms in Xitsonga. The compilers gave a comprehensive explanation of the English terms to enable the dictionary users to clearly understand the meaning of source language terms.
- Transference also helped the dictionary compilers to come up with appropriate equivalents especially for scientific and technological terms that do not have equivalents in Xitsonga. However, the dictionary compilers sometimes opted for transference where it does not work as effective as giving a comprehensive explanation of the English terms.

At times dictionary compilers combined two or more procedures for the coining of an equivalent of a single term.

- The dictionary compilers sometimes treated polysemes appropriately by giving all meanings associated with a single term. However, they at times gave a single equivalent to polysemes leaving out the other meaning of a polysemous term. This may confuse dictionary users to think that they can replace polysemous terms with a single Xitsonga equivalent in all contexts.
- The dictionary compilers used sentences and indications of whether the equivalent given is a noun or a verb by making use of the letters N for noun and V for verb to indicate that the meaning of the given equivalent will depend on context.

5.4 RECOMMENDATIONS

The research study recommends that:

- For culture specific terms, target language culture specific terms be used as equivalents as they convey the same meaning to a target language user as the source language terms do to a source language user.
- Descriptive equivalence be used in translation and compilation of dictionaries as it clarifies a dictionary user by describing a problematic source language term by giving a short description of the term based on its function.
- Dictionary compilers should treat all polysemes appropriately by giving all the meanings associated with a polysemous term and to take into account that the meaning of polysemous term depends on the context in which it is used.
- Transference be used in the compilation of dictionaries especially for loan words that are well known in the target language, and for names and acronyms.

- Dictionary compilers need to exhaust many if not all translation procedures to ensure that they use the most appropriate procedure to come up with the most appropriate target language equivalent of the source language terms. The combination of two or more translation procedures is also recommended to maximize the dictionary user's understanding of the source language terms. The combination of procedures like transference and descriptive equivalence for example, is recommended as it caters for all generations in terms of language usage.
- In a multilingual country like South Africa, where government documents are made available in all official languages, the importance of translation and availability of multilingual dictionaries cannot be over-emphasized. The researcher thus recommends that this study and others already conducted be used as a basis for further research on translation procedures used in translation and compilation of dictionaries.

REFERENCES

- Baker, M. 1992. *In Other Words: A Course Book of Translation*. London and New York: Routledge.
- Cambridge International Dictionary of the English Language*, 1995 Cambridge: Cambridge University Press.
- Catford, J. C. 1965. *A linguistic Theory of Translation*. London: Prentice Hall.
- Cluver, A.D. 1989. *A Manual of Terminology* . Pretoria. HSRC Report.
- Compact Edition of the Oxford Dictionary of English*, 1971. Oxford: Oxford University Press
- Concise Oxford English Dictionary*, 1934. Oxford: Oxford University Press.
- Halliday, M.A. K and Hassan, R.1985. *Language, context and text: Aspects of Language in a socio-semiotic perspective*. Oxford: Oxford University Press.
- House, J. 1981. *A Model for Translation Quality Assessment*. Tübingen: Gunter Narr.
- Hymes, D. 1964. *Language in Culture and Society*. New York: Harper and Row.
- Junod, H.A. 1907. *Elementary Grammar of the Thonga-Shangaan Language*. Lesotho : Morija Printing Works.
- Mabasa, T.A. 2006. *Translation Equivalents for Health/Medical Terminology in Xitsonga*. Unpublished Masters Dissertation. University of Pretoria..

- Madiba, M.R. 2000. *Strategies in Modernizations of Venda*. Unpublished Doctoral Thesis. UNISA: Pretoria.
- Mager N.H & Mager S.K. 1974. *Encyclopedic Dictionary of English usage*. Prentice-Hall: Englewood Cliffs.
- Mbambo, S.O. 2005. *The Influence of Culture on Translation with specific reference to Northern Sotho and English. A South African Perspective*. Unpublished Masters Dissertation University of Limpopo: Sovenga.
- Mehlape, P.P. 2007. *The Role of Lexicographic Definition in Northern Sotho-English English – Northern Sotho Bilingual Dictionaries*. Unpublished Masters Dissertation. University of Limpopo: Sovenga.
- Mntintsilana P.N & Morris P. 1988. *Terminology in African Languages in South Africa*. *Southern African Journal of African Languages* 8(4): 109-113.
- Mphahlele, M.C. 2001. *A Model to Achieve Communicative Equivalence in Translation dictionaries*: Unpublished M Phil Dissertation. University of Stellenbosch.
- Mphahlele, M.C. 2004. *The translation Principle: Is it the Best Procedure in African Language Lexicography and Terminology*. *Lexikos* (14): 339-358.
- Mthombeni, S.M. 2005. *Towards a Functional-Relational Analysis of Equivalence With Specific Reference to northern Sotho and English*. Unpublished Masters Dissertation: University of Limpopo: Sovenga.

- Multilingual Natural Science and Technology Dictionary*. 2005. Department of Arts and Culture
South Africa: Johannesburg.
- Mushwana S.E & Ndlhovu M.M. 1988. *Ririmi ra Manana*. Pietermaritzburg: Shutter and
Shooter.
- Naude, J.A. 2006. *Study Guide and Manual for textual and Linguistic Aspects of Translation*.
University of the Orange Free State.
- Newmark, P. 1988. *A textbook of Translation*. London: Pergamo.
- Nida, E.A and Taber, C.R. 1969. *The Theory and Practice of Translation*. Leiden: E.J. Brill.
- Nord, C. 1991. *The Analysis in Translation: Theory, Methodology, and Didactic Application of a
Model of translation-Oriented text Analysis*. Amsterdam: Rodopi.
- Oxford Dictionary of Sociology*. 1994. Oxford: Oxford University Press.
- Pöchhacker, F. 2004. *Introducing Interpreting*. New York: Routledge.
- Sager, J.C. 1990. *A Practical Course in Terminology Processing*. Amsterdam: John Benjamins.
- Selokela, M.R. 2003. *Treatment of Idioms and Proverbial Expressions in the Northern Sotho
Dictionaries: An exploratory Study*. Unpublished Masters Dissertation. University of
Limpopo: Sovenga.
- Snell Hornby, M. 1988. *Translation Studies: An Integrated Approach*. Amsterdam: John
Benjamins.
- Toury, G. 1980. *In Search of a theory of Translation*. Israel: Jerusalem Academic Press

Webster's Encyclopedic Unabridged Dictionary of the English Language, 1934. Lexicon publications: New York.

Wilss, J. 1982. *The Science of Translation: Problems and Methods*. Tübingen: Günter Narr Verlag.

Government Publications

The National Language Policy Framework. 2003. Pretoria: Department of Arts and Culture.
The Northern Province Language Act. 2000. Republic of South Africa. Government Printers.

Appendix A: Request letter for people to assist in the Research

Letter to participants

Dear Participants

I am currently conducting a study about Translation Procedures that are employed in the *Natural Science and Technology Dictionary* (2005) compiled by the Department of Arts and Culture. The study is an independent project aimed at satisfying the requirements for a Masters Degree in Translation Studies and linguistics with the University of Limpopo. I would appreciate your assistance in this research by supplying the translated equivalents of some of the English Terms in Xitsonga. All the information you divulge will not be used against you in whatsoever way or condition it may be, and will be treated with strict confidentiality, anonymity and will be used solely for this research.

Thanking you in anticipation of your assistance and participation

Yours Truly

Tinyiko Mabasa

Cell Number: was indicated

E-mail Address: was indicated