

AN INVESTIGATION OF TERM CREATION IN NORTHERN SOTHO

by

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DEDICATION

I dedicate this study to my late parents: Mr Godfrey Geoffrey Letsepe and Mary Mmaphuma and my brother Ignatius Mashogo Mojapelo.

To my brother and colleague, Mr Hlomane Marivate, you have been my pillar of strength, supported and stood by me throughout my studies.

To my beloved children Khomotso, Omphile, Omphemetse and Kabo, I love you.

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ABSTRACT

This mini dissertation investigate term creation in Northern Sotho/ Sepedi as a language. The research design for this study was exploratory because the researcher managed to determine the research design and data collected from the participants. The qualitative methodology was applied in this study to find in-depth knowledge on the investigation. The two samplings namely: random and purposive were used to select twenty participants such as teachers, lecturers, language practitioners, lexicographers and registered third year students of Northern Sotho at University of Limpopo. The study investigate various strategies in term creation namely: transliteration, semantic transfer, borrowing, paraphrasing, and many more. It was clear from the participants that transliteration and paraphrasing are mostly used in term creation. It is recommended that terms should be harvested by specialised individuals in order to perform term creation.

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CHAPTER ONE

1. BACKGROUND AND MOTIVATION

The indigenous languages in the new dispensation of new South Africa in 1994, according to The Constitution of South Africa 1996, were accorded status as official language. As a result, there was a great need for term creation to enhance medium of instruction. There was a need for terminology development on specific terms due to the fact that everything was commercialised.

According to Alberts (2000) National Language Services was established which was concerned with terminology development. Terminology division is one of the subsections in the National Language Services. The National Language Services create terms and coin term list on various subject languages. The Terminology Division of the National Language Services works in close collaboration with the National Language Body of Pan South African Language Board (PanSALB).

According to Mawela (2007) affirms that The National Language Service as strategies to develop terminology in Republic of South Africa. The team of collaborators consist of subject specialists of each subject such as teachers, language practitioners and linguists.

The Pan South African Language Board, according to Alberts (2003) is a Constitutional body which was established in terms of PanSALB Act (Act No. 59 of 1995) and amended in 1999. The Pan South African Language Board has three substructures being National Lexicographic Unit (NLU), Provincial Language Committee (PLCs) and National Language Bodies (NLBs).

According to Alberts (2003) view the main purpose of the PLC of each province is to make sure that the language is implemented and promoted in this multilingual country, while the NLB is to make sure that the language is being maintained and developed and it also verifies the terminology that has been developed by the NLS of Department of Arts and Culture. The NLU, then develop and compile various types of dictionaries with the terminology taken from NLB and also by using corpus.

Alberts (2011) adding on terminology development is that PanSALB has established National Lexicographic Units. The first dictionary Units was that of Die Buro van die write in full first (WAT), that is Afrikaans Dictionary Unit. In 1996, Pan South African

Language Board established the National Language Units of the eleven official languages. All the nine indigenous languages were mandated to write a Comprehensive Monolingual Dictionary. Each dictionary unit was based at an institution where the speakers of that particular language dominate.

Madiba (2002) supports development as mainly to make communication possible in modern situations such as government, science and technology. Terminology development is done at various levels of government which can be National, Provincial and Local government. There are various strategies employed in term creation such as paraphrasing, compounding, borrowing, transliteration, semantic transfer, derivation and others.

Sineke (2005), Nchabeleng (2011), Van Huyssteen (2012) and Temmerman (2013) provide various strategies on term formation as the process of alleviating terminology gaps in the African languages. Therefore application of such mechanism will be a way of language elaboration in Sepedi terminology. While Magagane (2011) argue that Sepedi as a language cannot cater all the functions in the society due to the fact that is not fully developed.

2. RESEARCH PROBLEM

Sepedi as a language does not have adequate terminology. The few lists which are available are themselves incomplete as they do not provide most of the terms the users need. According to Nchabeleng (2011) discovered that all African languages lack terminologies that is properly standardised. In cases where there are more than equivalents, the speakers of each language must be involved in order to provide with terms.

The available terminology is not disseminated to relevant people such as learners, linguists, language practitioner, and others. Users of the language may not receive the completed terminology as the process of publicising them is not clear. People do not always get hold of such copies. Alberts (2014) suggested that the available terminology must be disseminated through the internet internally and internationally to reach students.

Various strategies can be used in terminology development. Sineke (2005) observes strategies such paraphrasing, compounding, semantic transfer, derivation and

borrowing. Each strategy has its own merits and demerits. Some of them can be erroneously used and therefore affect the language negatively. The strategies such as transliteration, compounding and loaning are used in terminology development but are not user-friendly. According to Gauton, Taljard and De Schryver (2003) during term formation strategies such as loaning, transliteration, compounding and paraphrasing are applied in order to coin the translation equivalents

The NLB, which should authenticate and accept the derived terms as correct and standard do not always have the opportunity to perform this duty. There might be a number of reasons to that. Alberts (2006) mentioned the duties of the NLB that is develop terminology, standardise, dictionary needs, research and education. The NLB, that is not only structure that standardise the terms. According to Van Huyssteen (1999) noted that the bodies, institutions and language committees also help in the process of standardising the terms.

The Sepedi dictionaries which are available are not mostly used in the Education department maybe because none of them is specifically meant for learners. There is a need for such dictionaries as learners should be taught the correct language. Webb, Lepota and Ramagoshi (2004) observe that Sepedi functions effectively as Medium of Instruction (Mol), the only problem is that it lacks technical learner's dictionaries. The only resources available are text books, learner's assessment certificates and Orthography and spelling rules. The only available dictionaries help learners to contextualise the basic concepts in Science and Mathematics. Taljard and Nchabeleng (2011) supports Webb et.al (2004) that the only available dictionaries are the bilingual term lists.

3. LITERATURE REVIEW

The study pertains the word formation in the language Sepedi by applying various term formation strategies. Strategies such as compounding, transliteration, borrowing, deideophonisation, paraphrasing, compounding and others were applied during term formation.

Alberts (1997) and Cluver (1989) made the legal terminology in Sepedi. Taljard and Nchabeleng (2011), Maleka (2005) and Taljard and Gauton (2000) compiled Chemistry terms in Sepedi. Magagane (2011) was on ICT terminology. The

mechanism of creating the terms is a secondary term creation since is a way of understanding known concepts when a new term is created. Wababa (2010) points out that dictionaries are the main resources of terminology. Gambo (2016) noted that through word formation specialised dictionaries were compiled.

3.1 Terminology development

Terminology of National Language Services was established in 1998. The main focus was to monitor terminology development in Republic of South Africa. Terminology Division is part of the National Language Services. This division is looking at providing information on terminology to the Government. The National Language Service develop and standardize the language.

Alberts (2000: 238) further states that it supports the formulation, development, implementation of the national policy and strategies concerning technical language with the hope of promotion of scientific and technical communication. And is in the position of making the term list accessible to various languages. The term list is saved in the national term bank in order to avoid reduplication of terms. The term list is released to terminology developers in time of need. The terminology list is not done in vacuum but according to subject fields. The National Language Body of PanSALB works in collaboration with Terminology Division of National Language Service.

The Department of Arts and Culture used its National Language Policy Framework (NLPF) National Language Service as strategies to develop terminology in Republic of South Africa. The team of collaborators consist of subject specialists of each subject such as teachers, language practitioners and linguists. Each province has a terminology project to work on it. According to Mawela (2007) states that's, so far the complemented terminology projects are in the subjects Mathematics, Information Communication Technology (ICT), Parliamentary terms and HIV/AIDS.

Department of Arts and Culture established another team of specialist under Language Research and Development Centres (LRDC). This team its main focus was to co-ordinate projects in terminology which was monitored by NLS collaborators. University of Limpopo is one of the institutions that host such project of LRDC. The language Units in the Provincial department also work on language

development. Each language has a Provincial Units that was mandated to develop their own terms, and when completed they submit to the National Language Body for authentication. Limpopo Sports Arts and Culture compiled various glossaries in Health and Medical.

Now lately everything is commercialised. Term creation is necessary because there are lot of career opportunities in subject like Science and Technology. That is why there is a high demand of terminology in the official indigenous languages. Every subject field has a large demand of terminology. There is also Legal terminology which is compiled to help people with law terminology like in Courts. People are able to communicate to each other speakers in their Native languages. Northern Sotho was the first language among other official indigenous language that appears in this Legal terminology dictionary.

Terminology is not something that started in a vacuum but there is a need of it. According to Alberts (2014) terminology exists in order to make communication functional. When year passes vocabulary increase due to that everything is science and technology. Terminology compilation alleviates ambiguity.

These means that terminology occur because of needs to close the lexical gaps in the indigenous languages. The compiled terminology is observed in communication which can be direct or indirect. Communication appears in three conditions such as the natural language condition, the special communication condition and the specialization condition. Today, terminology is regarded as the most important study in language.

Sibula (2007) have the same with Alberts (2000) with terminology development, its main aim is to support students with technical vocabulary in the different subject fields. The students gain vocabulary of subject fields and improve their communication skills in their own native languages. Through the communication, students understand different terms of the same concepts.

3.2 Translation Strategies used in terminology development

Nchabeleng (2011) discovered the two strategies mainly the primary and secondary in the process of term creation. The primary section is concerned with finding an equivalent for a term which is a new concept in the particular subject. The secondary

strategy concerns with the concept which is unknown in that subject. Through the knowledge of the language one is able to have the name of the concept. In order to find equivalent of terms, strategies such as semantic transfer, paraphrasing and compounding are applied. In the case where Sepedi does not have an equivalent, the term is borrowed from the Source language. Due to lack of equivalent, strategies such as loaning and transliteration is going to applied.

Temmerman (2013) distinguishes three strategies of term creation that is primary term creation, secondary term creation and multilingual primary term creation. The three term creations contribute to deeper understanding of the concepts. According to Temmerman (2013) view secondary word formation is when new term is created for the concept that is known. The multilingual primary term creation is about one concept is designed into various languages.

Modernisation is the important tool in language development. During the process of modernisation of the terms in a language there is the process of terminology development. There are factors which are to be looked on such sociocultural, political economic and religious in the term development. The form of knowledge that human being is capable of contribute in the creation terms.

Strategies such as borrowing, compounding and derivational are used in term formation. Up to now the strategies which are productive in term formation are not clear. It is up to the intuitive knowledge of terminologists to determine how to combine words. Modernisation is one of factors in language planning during term creation. There must be consistency in the morphological and phonological pattern in the language.

3.3 Word-formation and its rules

The word formation is concerned with the process of changing the form of the word for a new affixation. Wagner and Kraft (2010) discovered that word formation comes in various processes such as clipping, blending, derivation, borrowing, coinage, compounding, and others. Wagner and Kraft (2010) are supported by Booij (2012) that word formation is divided into two kinds derivation and compounding. New terms occur in a language through word creation through blending, acronyms, clipping, and etc.

Stockwell and Minkova (2001) says there are of the idea that vocabulary in English keep on increasing due to the strategic of borrowing, neologins, blending, compounding and derivation. This few linguists supported each other on how word formation is performed.

According Plag (2003) word is formed in various ways such as compounding, derivation and infixing. The compounding is a single term that is formed by two bases. While the derivative is a word that is derived from the existing word. The infix as another word formation is formed from two morphemes. All this type of word formation at the end expresses concepts that are semantically unified. Bauer (1983) further states that word formation is a universal process in all the languages. The rules of the language that is the one which will determine which word formations are possible or not. The word formation such as inflection, derivation and compound are mostly common in all the languages.

3.4 Translation methods

Newmark (1995) view that the problem of translation method started in first century BC as to whether must be freely or literally. In the nineteenth century, writers opted for free translation. Then after the nineteenth century they opted for literal translation viewing its advantages. Ordudari (2007) affirms with Chlupova (2012) and Newmark (1995) on the following translation methods such as word-for word, literal, faithful, semantic, adaptation, free, idiomatic and communicative. Most translators opted on free and literal translation methods. The free translation is also associated with adaptation translation method while literal translation is also known as direct or word-for-word translation.

3.5 Dissemination of publishing

Alberts (1999) argue that knowledge is the main factor of distributing terminology. This provides functional communication between the speakers. The NLS of DAC has a term bank that caters all the eleven official indigenous languages. The terms are

developed through transliteration, loaning (borrowed), total embedding, extension of meaning and neologisms.

Batibo (2010) on the issue of disseminating of the terminology list to the users is mainly the body that approve and accept it.

The department must be sure that the dissemination is made through various methods such as glossaries in booklets and brochures. The new terms must be published regularly on local newspapers, and be placed at the relevant offices. They should conduct seminars concerning the newly developed term in the relevant offices. In the television and local radios they should embark on new terms. The writers should be encouraged to apply the new terms and clarify their meanings. University of Stellenbosch has made a great achievement in terminology dissemination.

They compiled a terminology lists such as sociology, social work, and others. For sociology terminology is placed in the sociology website while social work is in the special journals of social work fraternity throughout South Africa and Namibia. Madiba (2000) affirms with Batibo (2010) that on the created terminology, it the responsibility of the establishment of language body to distribute the terminology lists to various places. They need to put it in the journals, newspapers.

There should organise competition that encourage the development and usage of newly developed terms. Sometimes lack of publications like dictionaries and terminology lists lead to poor dissemination of terms. Alberts (2014) further suggested that terminology can reach to the students internally and internationally through internet.

4. ROLE OF THEORY IN THE STUDY

The name of the theory is Sociolinguistic approach. Sociolinguistic is a branch of linguistics that deals with the language activities of linguistic community. That is in sociolinguistics we are more interested in how a particular language or dialect develops, change etc.

5. PURPOSE OF THE STUDY AND THE RESEARCH QUESTIONS

Aim

The aim of the study is to investigate term creation in Northern Sotho

Objectives

- To access terminology development procedures in South Africa
- To identify common problems that are encountered in terminology creation.
- Search and popularise language specific strategies to be used in developing terms.
- Evaluate structures specifically meant for terminology development
- To suggest a model of term creation in Northern Sotho

6. RESEARCH METHODOLOGY

This study is a qualitative method that is based on scientific research that seek broader understanding. The qualitative methodology is effective since it helps the researcher to comprehend with broader knowledge of the topic. It further enables the researcher to be familiar with the different kinds of strategies in terminology development and which strategies are appropriate for this study.

6.1 Research design

This study is an exploratory research through its questioning wherein participants have the opportunity to answer with their own wording. There is nothing that bind their responses. This evoke answers that are naturally explanatory, rich and meaningful. Meaningful qualitative method was used in order to have broader knowledge on the topic.

Creswell (2009:173) view qualitative to employ different philosophical assumptions, strategies of inquiry, methods of data collection, analysis and interpretation. This method is relevant as it enables the researcher to find out how term creation is

applied in Northern Sotho/Sepedi. Data is collected from the appropriate participants through interviews and questionnaires.

6.2 Sampling

Sampling serves as specimen to represent the population. In this study the researcher used random and purposive sampling. The random sampling is on ten (10) registered Northern Sotho in third year level. The researcher further used purposive sampling on lectures, lexicographers, language practitioners and teachers.

The following samples are selected purposively due to their experience and knowledge on the language. Three (3) lecturers offering Northern Sotho at University of Limpopo, three (2) lexicographers of Sesotho sa Leboa, three (3) language practitioners from Department of Arts and culture and three (2) teachers from Hwiti high school offering Northern Sotho. The sample will consist of twenty (20) respondents.

6.3 Data collection

The data collection will be collected through the interview from the following native speakers of Northern Sotho. The students doing Northern Sotho third year level, language practitioners, lectures, lexicographers and teachers. The purpose of the interview in the qualitative research is judge the thinking of the interviewees. The format of questions will be closed and open-ended based on the topic that the researcher wanted to cover. All the answers will be recorded on the tape recorder.

The advantage of open-ended questions will allow the participants the freedom of responding and further elaboration on their answers. Meaning that the questions will be flexible to give participants to respond by using their own words. The researcher will benefit through the responses of the participants. The participants will be ten (10) students from University of Limpopo, three (3) language practitioners from Department of Arts and Culture, three (3) lecturers offering Northern Sotho at University of Limpopo, three (2) lexicographers of Sesotho sa Leboa and three (2) teachers of Hwiti High School. The time frame will be three weeks.

6.4 Data analysis

The gathered information from the ten (10) students and ten (10) language experts which will be on the tape recorder, will be synthesised and transcribed. Thereafter the findings will be narratively analysed and grouped according to themes. Themes become important in this study since are associated with research questions. Thematic analysis is a form of analysing qualitative research. The information from language practitioners, lectures, lexicographers of Sesotho sa Leboa, teachers and students will be analysed through thematically.

6.5 Quality Criteria

The quality criteria of the study are on qualitative methodology based on trustworthiness. The trustworthiness depends on the study's findings based on credibility, transferability, conformability and dependability. In credibility the researcher relies on the truth that he/she found from the study's findings. In transferability, the researcher will make sure that the information and the results of the research are useful to other related subjects discipline. For example, if the study concludes about a particular aspect of the research, such theory will be functional and useful to other researchers doing research in the related sub-disciplines. With regard to conformability, aspects that are concluded on may not be hidden. This means that the information concluded upon by the research should be taken test, that is, they should be proven to be facts and not fallacy or lies. The researcher after concluding should be able to prove the validity of his/her arguments. Readers should be able to really agree to what has been concluded by the study. If researcher is able to confirm the truthfulness about the findings of the study, it is obvious without doubts that they will depend on the study itself. Therefore, the dependability of this study is non-negotiable

SIGNIFICANCE OF THE STUDY

The findings of this study is linked to the background and problems encountered in the term creation. The retrieved information will benefit all the target users such as lexicographers, language practitioners, lecturers, teachers, students and others. All

the target language users will find the appropriate terminology development that will be user friendly to all the target users not the specific group of target users.

7. ETHICAL CONSIDERATIONS

The researcher will write letters to all the institutions that will participate in the study. Institutions like University of Limpopo, Department of Arts and Culture, Sesotho sa Leboa National Lexicographic Unit and Circuit Office. The consent form will be used as a mechanism for people to understand what is meant by participating in the research study. They will then decide whether to participate or not. From there, each participant will read the consent form then sign. This will confirm that their participation in this research is confidential and respected. No one will disclose any information to anyone else. The ethical standards will be observed not to disclose the names of the participants. The researcher will not disclose the findings of the respondents. The participants that feel like pulling out of the study they are free to do so. The interview will be between the researcher and the supervisor.

CHAPTER TWO

LITERATURE REVIEW

2.1 INTRODUCTION

Literature review is made up of the ideas, arguments and knowledge that are relevant to the study. Literature review, is the derived information from various authors, linguists and other specialists will help the readers to have broader understanding of the argument. The processes of coinage of terms will be given and explained. Examples of terms will be provided by the researcher in helping the readers to comprehend themselves with the study. This research is qualitative method because involve the particular participants who are Sepedi language speakers.

2.2 Corpus development

The term, development in language means that there is an expansion of language use in different domains. Linguistically, it is mainly showing the increase in the vocabulary of the language. For a language to be developed must undergo the process of corpus planning. Language development according to Van Huyssteen (1999) and Bamgbose (1991) is divided into main sections which is status and corpus planning. Both these activities is believed to interact with one another.

Cooper (1989) support Van Huyssteen (1999) and Bamgbose (1991) by mentioning the two major activities but differing with them by adding the third activity which is acquisition. Acquisition planning was introduced by Cooper (1989) looking on language spread and functions in second language teaching. This activity, acquisition planning, is believed to be playing the major role in the promotion of learning of a language. It is believed that corpus planning interact with acquisition because there is development of resources such as dictionaries, grammars, orthography and others which can be used in technology, administration and education.

Activities under corpus planning are things such as the production of dictionaries, rules on pronunciations, creating orthography rules, restructuring of language, simplifying of the register and increasing vocabularies. While activities on status planning are things such as expanding of language use in special domains, development of dialects, reviving of languages and introducing modern languages. Deumert (2001:644) support the above scholars that refers corpus development is concerned with production of grammars, dictionaries and spelling rules.

The activities which are performed during corpus development are similar according to Deumert (2001) and Dua (2001). Dua (2001) indicates that corpus development focusses on the term extraction to develop terminology. This means that terminology is part of language development since words or terms are developed for different purposes. The corpus and status development are the major activities in terminology development.

The terms are first restructured through corpus development then allocated to different domains through status. Furthermore, corpus development is part of language planning since it deals with the reformation of the language with the authority from the Government. According to Deumert (2001) corpus is mainly looking in activities such as standardisation, modernisation and graphization of words or terms.

According to Cooper (1989) corpus planning has three traditional primary categories being graphization, standardisation and modernisation. Elaboration and codification

also regarded as third categories and lastly renovation is said to be a fourth major category. During language planning, graphization is the way of creating writings, while standardisation is the acceptance of one written variety and lastly codification is a way of standardisation process, because there is a compilation of written rules. In the fourth category, that's when language is standardised to match the new demands especially in science and technology. In this category the terms which are already used are adopted in order to coin new terms.

While Alberts (2003) further states that activities such as orthography, dictionary making, and language standardisation, and others, are performed by NLBs of PanSALB. As a results corpus development is looking on restructuring the orthography, spelling, pronunciation and again modifies the old and new words or terms. According to Keet and Barbour (2014) argue that corpus and status planning played a major role to in the subjects like ITC, CS and IT.

Through all the activities under corpus planning as mentioned by above different scholars we are introduced into terminology development.

2.3 Terminology development

Terminology development is the process whereby a selected word, term or variety which is spoken is transformed into a written word, term or variety. The concept come into existence because language is believed to be inter-human communication and should be an on-going project. The purpose of terminology development is to strengthen and enhance our home varieties to be used in different domains. Alberts (2000:238) finds the main aim of terminology development being to support, formulate, develop, and implement the national language policy on languages with the aim of promoting communication in the technical and science domains.

Scholars or linguists such as Cooper (1989), Mesthrie (2001), Van Huyssteen (1999), Bamgbose (1991), Dua (2001), Magagane (2011) and others believed that terminology development take the same path starting with corpus development.

Dua (2001) discovered that terminology development is performed on the language development through the existing grammatical and orthographical terms. This process is facilitated by the central National Language Services where it caters all the indigenous official languages. Language is developed in order to develop terminology and terminology development should be an ongoing process. In the terminology development, there are two aspects being status planning and corpus planning. Status development is part of language development which include government decisions about the language policy and its implementation while corpus development is based on the language standardisation, elaboration and modernisation.

Magagane (2011) stresses that language planning occurs in the two concepts being corpus planning and status planning. There are four models in the standardisation of terms namely selection, codification, elaboration and acceptance. Elaboration is associated with corpus development. All this four models are looking on standardisation of terms.

According to Alberts and Mollema (2013) discovered that there is a lack of specialised dictionaries in legal domain. In court proceedings there was a lot of misunderstanding between laypersons and legal professionals. By bridging this type of a problem there was a need of terminology development on legal vocabulary. Lot of terms are from Latin as a results it becomes difficult to comprehend the message. Principles such as standardisation, harmonisation, and others were applied. Linguists, translators, interpreters, terminologists and others were bound to work together to develop legal terms. That is why today there is Centre for Legal Terminology in African Languages (CLTAL).

Alberts (2000) mentioned that National Terminology Services (NLS) merged with State Language Services to form National Language Services. The aim was to work in close collaboration in order provide the Government with terminology. The National Language Services, develop documents, terms, standardised and make them to be available to users. It also facilitates projects on developing technical languages. The National Language Services serves as a term bank of all the eleven official indigenous languages.

The Term Division of the National Language Services work in close collaboration with PanSALB. PanSALB established structures of language development. PanSALB structures are nine Provincial Language Committee (PLCs), thirteen National Language Bodies (NLBs) and eleven National Lexicography Units (NLUs). The National Language Bodies authenticate terms while the National Lexicographic Units compile dictionaries. The terms which are used are all from the NLS of Department of Arts and Culture. Magagane (2011) supports Alberts (2014) that terminology development is prepared by National Language Services (NLS) for all the indigenous official languages, while National Language Bodies (NLBs) prepares the term lists in the eleven official languages of South Africa.

Bamgbose (2011) discovered that African languages lack status of being used in restricted domains due to lack of developed terminology. The vocabulary which was long written is uplifted by creating terminology to express new scientific terms in African languages. Through the expansion of vocabulary, teachers, writers and media practitioners will be of good advantage. The University of Pretoria is compiling computer terminology in African languages, while University of Stellenbosch is developing terminology on Human Language Technology (HLT). This will cater multilingualism in economic development between the world countries.

Gauton, Taljard and De Schryver (2003) noted there was a lot of miscommunication between people, due to the misunderstanding during translation sessions so there was a high demand of terminology development. This will alleviate the gaps and mistranslation in our languages. And terminology development will only be done by speakers of its particular language.

According to Bamgbose (1999) language planning is the main structure that is looking on language development. Each language has its own language planner to implement its language policy. The language policy is drafted but has failed due to avoidance strategy because the language planners do not implement what is written in the policy of the language. Terminology development is done by agencies like government, universities, professional associations, media, research institutes, and many more.

The problem with language development is that the Government does not prioritize it, instead they fund other projects leaving language development behind. PanSALB is considered as the major structure that implement the official indigenous languages. Irrespective of PanSALB, other government structures like Department of Arts, Culture, Science and Technology (DACST), Education, Labour, Justice, South African Broadcasting Company (SABC) are working on language development.

Bamgbose (2011), Kamwangamalu (2016) and Erastus (2013) stress that all African languages should be elevated to enjoy the parity with English and Afrikaans. All the developed indigenous official languages should be used in education and other government domains. The products such as dictionaries, grammars and other resources should be developed and be used. Alberts and Mollema (2013) consider that terminology development plays a major role in alleviating miscommunication and misinterpretation during courts sessions. Because legal language is not like any other ordinary language but it's very technical and more over is easy to misinterpret the communication taking place between the non-legal person and legal person. Ndhlovu (2014) argues that due to lack of specialised dictionaries there was a need of terminology development because our African languages are experiencing language of limited diffusion LLDs

2.4 Term creation

Term creation is the process of formulation of words or terms. This process is applicable in all the languages whether Indigenous or European. Term creation become the solution of finding translation equivalents in the other target languages. This has become a serious issue in all African languages due to scarcity of terminology in the field of technology and science.

Term creation was strengthened to name some new terms to name objects that is the reason why Temmerman (2013) argues as being part and parcel of better understanding. This process is done by collaboration of subject's specialists such as translators, language practitioners, lexicographers, linguists, interpreters and others. According to Mabasa (2005:12) refers term creation as a rule-governed process

according to which roots and stems are combined with other roots, stems or affixes to form new words.

Albert's (2014) further mentioned that the language departments such as tertiary institutions and universities develop terminology centres to teach all the students on terminology creation. For now, terminology is taught from undergraduate to post graduate at the tertiary institutions and universities. To some extents, when students are not conversant with subject are able to refer to their study material which are transcribed in their first language. The teachers or lectures are able to explain the information which is in the source language into the target language for the purpose of student's understanding.

It was mentioned that the national government must make sure that the language usage must be applicable in all services of the government. In order to facilitate the use of the official indigenous languages, the official notices, government publication and inter –and –intra should be transcribed in the official languages.

It is edged that African languages be used as Medium of Instruction in Higher Education. To facilitate that there must be a Language Policy for that institution that at least one African language must be used as a medium of instruction. Like now there are several institutions that follow language policies of their own institutions such as University of Pretoria, University of Johannesburg, and others. This have language departments of Northern Sotho/Sepedi at their institution.

The Department of Arts and Culture has terminology coordination section (TCS) that regulate the national term bank for a variety of subject fields to alleviate reduplication of terms. Terminology Coordination Service regulate projects such as South African Academy for Science and Arts/ Suid-Afrikaanse Akademie vir Wetenskapes en Kuns (SAAWK), Centre for Political and Related Terminology in Southern Africa Context (CEPTSA) and Centre for Legal Terminology in African Languages (CLTAL).

The SAAWK, has compiled a bilingual Art and Craft dictionary with main languages being English and Afrikaans. Then the CEPTSA has a bilingual dictionary with the two source language English and Afrikaans. The English terms are the one which are decoded into Afrikaans, Zulu and Northern Sotho. While the CLTAL, which deals

with terms on legal procedures, its bilingual dictionary was in English and Afrikaans. The first language to appear in that dictionary was Northern Sotho/Sepedi.

PanSALB together with Terminology Development and Standardisation gave terminology training to the following institutions in respective years. In the year (2005-2007), was given to University of Pretoria, in the same period that is (2005) was given to University of Cape Town, then the following year which is (2006) Tshwane University of Technology was trained, in (2008), was Language Research and Development Centres, Nelson Mandela Metropolitan University, then the following year (2009), it was University of South Africa. University of the Free State was trained in (2010) and lastly in 2012 it was Cape Peninsula University of Technology.

2.5.1 Different methods of term creation

Term creation is a universal process in all the languages in the case of inventing equivalents in the target languages. There are methods which the professional terminologist must apply in order to create terms. The purpose of applying the procedures is that terms are not created haphazardly since there is a need of consistency. The main purpose is to alleviate lack of equivalents in the languages.

This methods of term creation covers a lot spectrum such as translators, interpreters, terminographers, terminologists, language practitioners, and many more. By applying these methods people are provided with technical vocabulary on different subjects. Term creation is a method used to provide vital information across the languages depending on the intimate knowledge terminologists.

The different methods of term creation is documented by scholars such as Magagane (2011), Alberts (2014), Van Huyssteen (1999), Gauton, Taljard and De Schryver (2003), Moropa (2005), Ndhlovu (2012), Nchableng (2011), Batibo (2010), Malindi (2011) and many more. Methods such as, transliteration, borrowing, paraphrasing, compounding, derivation/affixation, semantic transfer, and others were applied during creation of translation equivalents.

Magagane (2011) noted that even though there are many methods but they depend on the backgrounds of certain domains. Sepedi/ Northern Sotho apply their own morphological rule which is consonant vowel syllable. Magagane (2011) further points out that the University of Pretoria produced a study guide on basic chemistry terminology. The memorandum paper on physical science was also produced. In 2005 Department of Arts and Culture compiled an ICT terminology. For example:

The **network** (*neteweke*), **screen** (*sekirini*) and **web** (*wepe*), the direct loaning was applied by adopting the same term and writing it into phonological structure of Sepedi. Taljard and Gauton (2000) experienced the same problem in compiling their Multilingual Explanatory Dictionary with their equivalents in Afrikaans, Isizulu and Sepedi. The same procedure was found to be applicable in forming of terms in Chemistry. For example:

English	Sepedi	page
acid	<i>esiti</i>	194.

Gauton, Taljard & De Schryver (2003) share the same view on term creation that makes the language users to have a clear understanding of the process of word formation. The following Sepedi terms are extracted from Gauton et. al (2003)

English	Sepedi
apartheid	<i>aparteiti</i>
research	<i>resetšhe</i>

During the coining of legal terms, the same method was applied. Most of these terms are from Latin and archaic, in order to coin them one need to apply transliteration. Transliteration becomes the core procedure in coinage of terms in science, medicine, economics, legal, and others.

Alberts (1997) emphasis that Sepedi as an official indigenous language was the first to participate in legal terminology project. The main purpose was to cater Sepedi interpreters with terminology in order to communicate with layperson during courts sessions. Most of the terms were in criminal law and criminal procedural law. The

English and Afrikaans terms were translated into Sepedi. The following term creation were applied such as loaning, transliteration, extension of meaning and neologism. For example, transliterated words.

English	Sepedi
sheriff	<i>šerife</i>
casino	<i>khasino</i>

All the official indigenous languages follow particular methods during their formulation which are almost the same. Magagane (2011), Taljard and Gauton (2000) and Gauton, Taljard & De Schryver (2003) experienced the same problems on inventing technical and science terms while Alberts (1997) encountered the same problems in creating legal terms. These terms were invented through the adaption of the grammatical rules on recipient's language Sepedi. The terms were adopted from foreign language to create terms in the target languages. These method of transliteration make communication possible between people of different language background. Mafuyeka (2012) refer transliteration as the spelling of words taken with their characters from source language into another language. Transliteration is encouraged to be applied only in cases where there is no target equivalents. Again it must not be used excessively since is causing language death.

To some linguists they take transliteration as the productive method of developing terminology unaware that is killing our indigenous languages. The important of it is only to fill the prevailing non-equivalence gaps. In transliteration spelling, pronunciation of the loanwords is being retained by reflecting their phonological structure of the borrowed language. This is a direct loan that is leading to total borrowing because the language users tend to use the transliteration over their own target languages.

The disadvantage of applying this method is that if the users of the target users have never heard of the term before, it will cause communication embarrassment. The newly developed translation equivalent will still be foreign to users because they will not be able to contextualise its meanings. Therefore, the users will not have its

semantic purpose. For users to contextualise the term will only be if the translation equivalent is provided in brief.

Another productive method on term creation is borrowing. Borrowing according to Richard and Schmidt (2002) is when a word or phrase is take from one and adopted into another language. The borrowed term is then incorporated into the vocabulary of Sepedi/Northern Sotho. The aim is to avoid zero-equivalence in the target language. The excessive borrowing lead language death not language shift nor language change. The main thing that lead to borrowing is the cultural contact that is prevailing between two different language communities.

There is lot of borrowing in order to facilitate communication between different cultures. Terms such as **pencil** (*phensele*), **bank** (*panka*) and **envelope** (*omfolopo*) are borrowed words. This is a total acquisition from the source language English into the target language Sepedi/Northern Sotho by adopting morphological structure of prefixation and affixation. This has developed lot of terminology through borrowing terms from other languages. In borrowing, terms are created with terms that are directly loaned from the source language. Terms borrowed, it's morphologically structure does not change. Borrowing and transliteration are similar because words are transcribed looking at their phonological, spelling, pronunciation, and others of the target language. For example:

English	Sepedi
network	<i>neteweke</i>
screen	<i>sekirini</i>
web	<i>wepe</i>

In the borrowing, the term from the source language is incorporated in the target language without changing its morphological structure. According to Moropa (2013) there is a serious shortage of terms in specialised field, as a results this method was applied in creating multilingual terminology lists in fields like soccer, bricklaying, carpentry, weather, natural science, and many more.

Besides the above methods, Sineke (2005) postulated that paraphrasing is applicable in all the languages to fill the prevailing linguistics gaps in the languages. In paraphrasing, the translation equivalent of the headword is defined in short in the case of no equivalents. In paraphrasing the translation equivalent comes as a definition of meaning of the source term because of lack of appropriate equivalent. This is due because of lexical gaps in the target language and avoiding to have non-equivalent. In a way, the short explanatory phrase will minimise non-equivalent translation equivalents.

The explanatory phrases usually occur in cases where a term is borrowed from the source language. This will count on the language preference of that particular language. Paraphrasing can be sentences or phrases that convey the same idea but with different wording. Paraphrasing is considered as the one method that is user friendly to the target users. To some linguists, consider it as not the best methods because the equivalents are in sentence or phrase format sometimes known as “paraphrasing phrase”. The examples of paraphrased terms extracted from *Multilingual Natural Science & Technology Dictionary* (2005). For example:

sunlight	<i>seedi sa letšatši</i>	170
venous	<i>ya tšhika ya lehlaka</i>	186

Linguistically, paraphrasing is not an appropriate method to create translation equivalents because it explains the words or terms and furthermore their equivalents one may call them “equivalents phrases”. For further examples:

acid rain	<i>pula ya esiti</i>
bar magnet	<i>baa ya maknete</i>
freezing point	<i>bogomo bja bokgahlišetšo</i>
assessment criteria	<i>mokgwa wa tekanyetšo</i>

The translation equivalents as it appears is too complex and very few will understand whether the translation equivalents or the definition of the term. This few examples

shows that, paraphrasing is applicable in most of non-equivalent cases in Sepedi terminology.

Gauton, et.al (2003:82), further add that term creation is formed through loaning, paraphrasing and transliteration, especially when the terms are from the source language to the target language. In reality the official indigenous languages have low diffusion status. This results because the target languages are running short of translation equivalents especially in Economics, Medicine, Politics, Law and Science and Technology. Moropa (2013) further emphasises that this method should be applied and the terms be authenticated by NLB through their orthographic spelling and be standardised.

Some linguists prefer using a compounding method in coinage of terms. Mphasa (2006) indicates compounding as another productive method in term creation that involves coining of terms through combining two or more words to form one long entity. Usually compounds have two heads that is on the left and on the right. Compounding can be a noun to a noun, noun to verb, adjective to noun, adverb to noun, and many more. Example of compound terms:

English	Northern Sotho
acid rain	<i>pulaesiti</i>
bar magnet	<i>paamaknete</i>
freezing point	<i>bogomakgahlišo</i>
assessment criteria	<i>mokgwatekanyetšo</i>

According to Mphasa (2006), further states that compounds can serve as names. For example, from Multilingual Natural Science & Technology Dictionary (2005).

English	Northern Sotho	page
female flower	<i>lelobatshadi</i>	63
fleshy fruit	<i>dienywameetsentši</i>	67
light brown	<i>botsothwana</i>	97
food-chain	<i>fututšheine</i>	69

Term creation in Sepedi/Northern Sotho relies mostly on the language background of the terminologists who are phased with that particular subjects.

The concept, compounding occurs in almost all the languages as a term creation. There is no language that does not have compounding or affixes. The disadvantage of applying compounding is its complexity of their translation equivalents. To some target users this method is not user friendly, and will be user friendly when paraphrased. Ndhlovu (2014) supports Mphasa (2006) through the application of compounding during translating terms in the special dictionaries.

All the indigenous languages follow particular methods during their formulation which are almost the same. Sineke (2005) notes that there are five methods of term creation such as paraphrasing, compounding, borrowing, semantic transfer and derivation. Most of the African languages prefer using paraphrasing in order to fill the prevailing linguistics gaps in their various languages. This will count on the language preference of that particular language.

When comparing the usage of the two methods of term creation being compounding and paraphrasing, one may like to use compounding while others may use paraphrasing. Paraphrasing as a method provide translation equivalents that are in the form of phrases. While compounding, to some extent is the best method only to academics. Both two methods are good depending on the views of the target users of that language.

Derivation/affixation is another productive way of inventing terms or words. Sineke (2011) explains derivation as the other process of creating words by adding affixes to the roots/base in order to form new words. In these method, an existing term or word is used to invent a new concept. In derivation there are rules which are applied such as affixes being prefixes and suffixes.

Usually the derived terms or word become nouns, verbs, adjective, adverbs, and others. In the English language a word like happiness as a noun is derived from existing word happy. Sepedi also invent derivational words or terms from existing terms. Mukundamago (2010) refers derivation as the attaching of a new meaning to a term that already exist. In this case new meanings are attached from the existing

word so that the semantic context is modified, and the meaning of the term in the source language is transferred to another language as translation equivalent.

It is possible that the term belongs to Language for General Purpose (LGP) as a normal term and in Language for Specialised Purpose (LSP) as special term. For example, the verb **electron** its translation equivalent is *elekthrone*. The word electron, is coined into **electronic** and its translation equivalent is *elekthroniki*. Further examples of derivational words are:

English	Northern Sotho
electrician	<i>ramohlagase</i>

These examples of headwords are all derivational terms in English with their translation equivalents in Northern Sotho that are also derived from their original terms. Other derivational words which are derived from verbs such as **love** and **quick**, are as follows.

English	Northern Sotho
loveable	<i>rategang, rategago</i>
quickness	<i>potlako, phakišo</i>

The above terms are being invented from the ordinary terms and nouns. Terms can be invented through the semantic transfer. Semantic transfer is transferring the meaning of the term from the source language into the target language without affecting its meaning. Example, **dictionary** (*pukuntšu*), **train** (*setimela*), **aeroplane** (*sefofane*), and others. The terms **dictionary**, **train** and **aeroplane** are not affected semantically and their meanings are still the same. The only difference is new term in the other language.

Various method was supported by different authors, linguists, subject's specialists, and others. This method was used in order to create translation equivalent that adhere to the principles, spelling conventions and orthography of the language. Culture is one of the aspect that plays a major role in the translation equivalents to alleviate misinterpretation. In essence, methods of term creation as stated in this study are common to all the languages.

According to Magagane (2011), Moropa (2013), Mafunyeka (2012) and Alberts and Mollema (2013) the few mentioned methods of term creation help the terminologists to supply with congruent translation equivalents. In using this few methods, orthography rules are followed such as a consonant is followed by a vowel.

2.5.2 Term creation process

The term formation process, is the procedure which is applied in the coinage of terms. Alberts and Mollema (2013) confirm that there are three principles that were applied in the term harvesting in legal domain. The term harvesting methods are Subject-Oriented Terminography (SOT), Translation-Oriented Terminography (TOT) and Linguistic Community-Oriented Terminography (LCOT). The Subject-Oriented Terminography harvest their terms within the subject domain which are created in the source language, Translation-Oriented Terminography do their harvesting in the texts of source and target language and Linguistic Community-Oriented Terminography, the fieldworkers harvest terms from any existing variety communities.

In the process of term creation, all terms from different subjects are gathered then allocated through all possible strategies. Translation equivalents are created through using different methods in order to find equivalents such as synonyms, different contexts, paraphrasing, borrowing, transliteration, and many more. The strategies were applied in this study to alleviate zero-equivalents. A translation equivalent is achieved when a term or expression which is in the source language is provided with a counterpart in the target language. This means that a translation equivalent is an equivalent of the source term in the target language. Due to differences in historical, social, and economic there is another process which terminologists used as an alternative in the term creation.

Synonyms become another strategy to be applied in order to find translation equivalents. Translation equivalent is a synonym of a word or term in another language. In the case of failing to find equivalents, translation equivalents synonym were applied as an alternatives. Synonym according to Gouws and Prinsloo (2005:145) is a word that has the same meaning as another in another language. Synonyms are words or a phrases from the same language that have the same or

nearly the same meaning, there is a relation between the headword and the members in the translation equivalents.

The synonyms usually reveal the meanings that are very close and can be applied interchangeable in sentences. It is possible that a headword might have more than one synonym that serve as translation equivalents. For example of multiple synonyms: Terminology and Orthography No. 4:

abacus *mmadiphethana, mmadifagana*

maize *lehea, lefela*

Both terms *mmadiphethana, mmadifagana* are the synonyms of abacus which are also known as synonym translation equivalents and they can be used interchangeable in any contexts. The terms *lehea* and *lefela* can be applied interchangeable in any contexts.

According to Mothiba (2012) this kind of synonyms share the same meaning to one another. Semantically these synonyms are known as total synonyms because they can be used interchangeable in all contexts. They can replace each other in any type of context and still bring the same message because they are semantically related.

Besides the total synonyms there is another type of synonym known as partial translation equivalent synonyms, in semantic are loose synonyms or different contexts. This type of synonyms reveal that they can be applied in different sentences because they possess different senses. In other cases they are called polysemous synonyms. For example:

excellence *botse, bose, go fetišiša*

feature *sebopego, ponego*

The partial translation equivalent synonyms or loose synonyms cannot be used interchangeable in all some contexts because they do not carry the same message even though they are synonyms. The synonyms are arranged according to the way they are used in everyday life. Both translation equivalents *botse* and *bose* are synonyms but one cannot use them in the same contexts since they do not denote the same

meanings. The synonyms *sebopego* and *ponego* still cannot be used the same in one sentence but one can do cross referencing through them.

Translation equivalents is also provided through the process of paraphrasing. In paraphrasing, the translation equivalent of the headword is defined in short in the case of no equivalents. The translation equivalent comes as a definition of meaning of the source term because of lack of appropriate equivalent. This is due because of lexical gaps in the target language and avoiding to have non-equivalent. In a way, the short explanatory phrase will minimise non-equivalent translation equivalents.

The explanatory phrases usually occur in cases where a term is borrowed from the source language. This will count on the language preference of that particular language. For further examples: **acid rain** (*pula ya esiti*), **bar magnet** (*baa ya maknete*), **freezing point** (*bogomo bja bokgahlišetšo*) and **assessment criteria** (*mokgwa wa tekanyetšo*).

Through term creation lot of resources were invented by different terminologists, scholars, linguists, and others.

Nchabeleng (2011). Primary term creation is considered to be a process of naming of concepts that are new and looking for an appropriate term for it. While the secondary term formation is when a known concept is transferred into another language. Alberts (1999), share the same view with Nchabeleng (2011) on the two strategies of term creation. Secondary term formation is the one that is much important in the existing terminology which is to be developed. In actual fact, the main purpose is in a way of transferring the same message which is mentioned in the source language into the target language. In this case the terminologists must be careful that the supplied translation equivalent is communicative in the target language. In order to supply communicative translation equivalents in the target languages, the strategies mentioned are used.

2.5.3 Term creation in Northern Sotho/Sepedi

Term creation is one of systematic process of creating terms. During these process, terms are created looking at its morphological, spelling, pronunciation rules, and others of Sepedi. Like all other languages term creation is done considering consistency in their languages. The study shows the orthographical unification of

Northern Sotho. Moropa (2013) mentioned the following Sepedi terms such **pencil** (*phensele*), **bank** (*panka*), **envelope** (*omfolopo*), **and stamp** (*setempe*).

They are adapted through the syllabic structure of Northern Sotho. These are borrowed terms that were long used in order to meet communicative needs. Meaning that borrowing strategy is one of the terminological process that started in the 1880s decades. The terms were used during that era and were not recognised as loan words but as part of the language. The terms were absorbed into the vocabulary to an extent that they no longer look foreign.

In a term like **pencil** (*phensele*), the “p” is a bilabial plosive sound and becomes aspirated plosive “ph”. In the term **bank** (*panka*), the b is a bilabial fricative then takes “p” which is bilabial plosive. The “b” and “d” are loans from English and Afrikaanse. In Sepedi, some consonants “v” are not available like in the term **envelope** (*omfolopo*). Transcribing, this term the “v” becomes “f” which is labial dental fricative. The term **stamp**(*setempe*), take the same route of following the language Sepedi/Northern Sotho

The terms are adopted through the morphological structure of Sepedi/Northern Sotho moreover this language does not allow consonant cluster. Sepedi/ Northern Sotho apply their own morphological rule in order to be consistent that is a consonant vowel syllable or cvcvcv. The rules of the recipient’s language must be seen in the invented terms together with sound combination to express a particular meaning. The translation equivalents are transcribed in the manner they sounded following the rules in Sepedi/Northern Sotho

Science and technology, medicine, law and others have terms that are not user-friendly in Sepedi. In order to have their translation equivalents they are transliterated. That is why Magagane (2011) points out that the University of Pretoria produced a study guide on basic chemistry terminology. The following terms **network** (*neteweke*), **screen** (*sekirini*), **web** (*wepe*), are found in an ICT terminology (2005) which was compiled by Department of Arts and Culture. These terms in a way are equivalents

The morphological rule does not only affect science and technology but even legal subject. Alberts (1997) emphasises that Sepedi was the first to participate in legal

terminology project. The main purpose was to cater Sepedi interpreters with terminology in order to communicate with layperson during courts sessions. Most of the terms were in criminal law and criminal procedural law. The English and African terms were translated into Sepedi.

Most of the legal terms are Latin words and is not easy to have equivalents except when transliterated. For example: **sheriff** (*šerife*), **casino** (*khasino*), **democracy** (*demokrasi*) and many more. The above examples show relation to the original through the adapted orthography and moreover are not adapted through the syllabic of Northern Sotho. Terms were sothoised according to the way they sound in order to fill the translation gaps occurring in the language Northern Sotho/ Sepedi.

Up to this end University of Stellenbosch has developed multiple of multilingual glossaries for tuition. Five subject's specific terminology lists are Sociology (344 entries), Social Work (325 entries), Psychology (514 entries), Law (283 entries). And lastly the (1846 entries) are all in the glossary of Economics and Management Sciences which comprise of Accounting, Business Management, Economics, Industrial Psychology, Information System, People Management, Public Development and Statistical Methods.

Temmerman (2013) share the same view with Alberts (1999) and Nchableng (2011) on terminology creation. The process of term creation occurs in primary, secondary and multilingual primary term creation. The primary term creation is mainly on language understanding while secondary term creation deals with translation equivalents in another language. Secondary term creation has more to do with how translation and scientific written is performed. This will mean one need to have functional terminology. The third term creation is known as multilingual primary term creation. This has more to do with equivalents of one term in several languages.

According to Keet & Barbour (2014) African languages is not having Computer Science and Information Technology terminology. The Department of Arts and Culture has completed the first version of ITC of all the official indigenous languages. The dictionaries which are available contains terms in computer literacy not terms in broad

With regards to Keet & Barbour (2014), observes that computer science and information technology, is a new study in the field of terminology development. There is a serious challenge in inventing new words. The computer science and information technology is not scientifically but computer literacy. The new invented terms are transliterated to serve as equivalents in the target languages.

2.6 CONCLUSION

It is evident that term creation is a major universal problem in almost all the African languages. For a language to be developed there must be language planners to implement the language policy. Through the usage of corpus planning the language is developed. The relevant structures are the major tools to develop the languages if only they are working in close collaboration. During the process of term creation there was applicable strategies to be used depending on the terminology's language background. This will alleviate the non-equivalents and mistranslations in the African languages.

CHAPTER THREE: RESEARCH METHODOLOGY

3.1 Introduction

This chapter focussed on qualitative method because it is the research methodology on this study. It also described how data was collected, research design, sampling techniques and how the data is analysed.

3.2 Research method

The qualitative methodology becomes the most relevant methodology in any investigation. This method played a major role in brainstorming the study to the researcher. In this study, qualitative method was applied because the researcher hoped that she would gain more information on this research topic. The researcher found out that this method was relevant, and will enable her to gather different methods on coining of terms, how terminology development is done and which people are relevant to performing terminology development processes.

3.3 Research design

The research design of this study is exploratory as mentioned in chapter one. The reason behind exploratory, was that no one studied the prevailing problem. At the same time the exploratory helped the researcher to determine the research design together with data collected from the participants. The researcher gained lots of ideas and in-depth information.

3.3.1 Sampling

**population*

The researcher used purposive sampling to select her samples. Through the purposive sampling, the researcher selected ten (10) registered students in the third year level and who are learning Sepedi.

The researcher did not consider their gender and age in her selection. The researcher further selected three lecturers from University of Limpopo. Since in the Department of Northern Sotho there are only two lecturers offering Sepedi from first year until postgraduate, the third lecturer was selected from the Department of Education and is also a Sepedi lecturer. At the same institution, there is a Lexicographic Unit of Sesotho sa Leboa Dictionary, where the researcher

purposively selected two (2) lexicographers. In this Lexicographic Unit, the workers are working to compile dictionaries in Sepedi.

The three (3) language practitioners were selected from the Department of Arts and Culture who are working directly with Sepedi. Lastly the two (2) teachers were selected from Hwiti High School. Hwiti High School is having a total number of seven teachers offering Sepedi, the researcher, out of the seven teachers, selected only two teachers who are teaching Sepedi in Grade 12. The researcher selected Hwiti High School because its geographical location is a walking distance from University of Limpopo. The total number of the sample used in this study was only twenty (20).

**sampling*

The researcher used purposive method to select participants of the study. The purpose of selecting this sample is that Bapedi are native speakers of the language. The researcher selected third year students purposely because they are learning the language. Lecturers, teachers, language practitioners and lexicographers were selected purposely because whenever they are at work, they are engaged with the language Sepedi.

**Ethical issues*

The information that the researcher collected from this research was used for research purposes only. The researcher will not divulge or disclose any information to the third person or party that is not taking part in this investigation. The participants are free, safe and secured because what the researcher have obtained from them will remain confidential. Even during data analysis, the researcher will make sure that participant's voice recordings remain the issue of a research between her and the study itself.

**sample*

The researcher used random sampling for selecting ten (10) registered students from University of Limpopo who are native speakers and in third year level in Northern Sotho. Purposive sampling was applied in selecting the respondents as follows:

- 2 Northern Sotho teachers from Hwiti High School
- 2 lexicographers from Sesotho sa Leboa Dictionary Unit.
- 3 language practitioners from Department of Arts and Culture and
- 3 lectures offering Northern Sotho at University of Limpopo.

Both units of samplings were applied because the above participants all are native speakers of Northern Sotho and every day in their working environment work with the language. The total number of sampling consist of twenty (20) participants who are experts in the field of Northern Sotho as a language. In random sampling participants are selected because of having chances of being selected and to avoid biasness.

3.2.2 Data collection

The researcher collected data by using question guide through the interview. Data was collected personally by the researcher through the voice recorder. All the interviewees were allocated dates, time and venues. The researcher explained to them that all the interviews are going to be voice recorded. The researcher started her interviews with the lexicographers of Sesotho sa Leboa Dictionary Unit and lecturers because they are working from the same institution which is University of Limpopo, and it took the researcher only two days.

Then proceeded with the language practitioners of Department of Arts and Culture in the following day which took only a day. The above three groups adhered to their time frames. The researcher set comfortable dates, time and venues with the language practitioners, lecturers and lexicographers to interview them in their offices. This group adhered to their stipulated period which was three days. The challenge occurred with the students and teachers because their time frame was five days but it prolonged to two weeks. The stipulated time for students was five days but due to some unforeseen circumstances it prolonged to the whole two weeks.

Students were interviewed individually in the researcher's office for a period of five days. It took the whole two weeks to interview the students together with teachers. All the eleven questions were open-ended and written in English on the question guide. The researcher made twenty copies with similar questions each having its own consent form. The researcher was flexible and accepted responses in the participant's language of their choice. All the responses were transcribed into English by the researcher herself.

The researcher applied for Ethical Clearance Certificate from the University of Limpopo. The attached documents are approval letter from her Department, consent form, and question guide for the interview. The University of Limpopo approved and supplied the researcher with an Ethical Clearance Certificate. The researcher, produced the letter of approval to collect data which she got from the Department of Translation Studies and Linguistics Studies. Whenever the researcher conducted the interviews she read the letter before conducting them. The participant signed their consent forms and continued with the interview. The researcher explained to her participants that their voice recordings and names will remain confidential to the third person.

They must not expect any benefit since this is voluntarily. In case they felt like pulling out of the participation they are free to do so. Nothing will harm or affect them. Their recordings and consent forms and will remain confidential in the researcher's possession.

3.3.3 Data analysis

The researcher analysed the collected data by using thematic content analysis steps. Data was analysed by applying the six steps namely: familiarising herself with the collected data, generate initial codes, searching for themes, reviewing for themes, defining and naming themes and producing the report. Firstly, the researcher, familiarised herself with the data by listening to a voice recorder and reading the transcribed data on several times. The researcher double check by ensuring that the collected data made sense and were correct.

Secondly, the researcher organised the data that reoccurred. Codes such as terminology development, common problems, specific strategies, and specific structures that are relevant to develop terminology and model of term creation were selected. The way the in which participants responded the questions automatically form thematic analysis. Thirdly, the researcher invented the above mentioned codes into subthemes. Fourthly, reviewed the subthemes and made main candidate themes that had enough points from the collected data. Some were merged in one in order to form strong arguments. Lastly, the researcher named themes that will be discussed on the next chapter. Lastly, the report was made based on the themes.

3.4 Conclusion

The conclusion of this chapter made the reader to be aware that research design employed was exploratory with two samplings used in selecting her population. It further elaborates on how interviews were conducted with selected population. The procedure of ethical considerations that the researcher adhered to it in order to collect her data. The collected data that is going to be analysed thematically in the next chapter.

CHAPTER FOUR: PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introduction

This chapter present and analysis the findings of term creation obtained from Sepedi language experts together with registered third year students. The researcher analysed the data collected from her participants with objectives of the study to create themes of this study. The other topics are data management and presentation of data with its sub topics.

The researcher read the transcripts on several times in order to capture the whole idea. When familiarising herself with the data, she then generated initial codes. In the meantime, she searched for themes in which she produced a final report which is under presentation and discussion of research results.

4.2 Data management

Data was collected through using interviews. All the interview questions were written in English even though the researcher allowed any responses in either English or Northern Sotho. All the responses were recorded in a voice recorder. The responses which were given in Northern Sotho were later transcribed into English. Even the responses which were given in English, the researcher transcribed them into English. At the end, the researcher had all responses of the twenty participants transcribed into English.

The researcher read all the transcribed documents one by one. From there, the researcher re-read the transcribed responses and grouped them according to similarity responses. The first theme was where do we access terminology. Most of the participants mentioned that terminology is found in books, DAC website, National Language Bodies and electronic dictionaries. Out of twenty participants, thirteen responded by similar answers.

In terminology development, there are problems that are encountered. The major problem that the participants mentioned was that there are no dictionaries, lack of dedication on developing the language, no relevant collaborators, no budget for

consultation meetings, no incentives and lot of duplication of resources. According to the above mentioned points, terminology development is a problem. Most of the participants mentioned that there should be dedicated collaborators to develop terminology in order to alleviate such problems.

For our language to grow, best strategies were mentioned such as transliteration, paraphrasing, derivation, compounding, using existing forms and semantic transfer. The participants such as lecturers, teachers, language practitioners, lexicographers and few students mentioned strategies such as transliteration, compounding, derivation and others that were best in terminology development.

In terminology development, there are bodies that are relevant to perform terminology. Government department, National public enterprises, PanSALB, NGO's, Universities and private institutions were mentioned as the relevant structures that are responsible to do terminology development. Under this theme, most participants mentioned the same answers. Statistically, the researcher found seventy percent giving the same responses.

The model of term creation was also mentioned by all the language practitioners, lexicographers, teachers, lecturers and few students.

4.3 Discussion of findings

The presentation is from students, teachers, lecturers, language practitioners and lexicographers. The questions were eleven in number. Each answer was transcribed according to the way the participant understood the question. Whenever the researcher was not clear would stop the voice recorder and listen to it again in order to get the idea of the interviewee. All the answers were compared and grouped according to themes.

4.3.1 Access of terminology development

Some teachers and students do not know where they access terminology, this was confirmed by their responses. Teachers and learners undermine the language that is

the reason why they lack information about the language. From the perspective of the researcher, teachers and students are still behind or either they lack dedication on the language. Furthermore, they lack understanding of the differences between terminology development and lexicography. The loaned terms which are incorporated in the language, they thought are the vocabulary of the language. Speakers of the Sepedi language do show interest on developing their language, as a results inadequate terms in Sepedi will always be a problem.

The language practitioners, lecturers and lexicographers have in-depth knowledge on this study. This three groups, since are language specialists, have broad knowledge of ideas where they access terminology development and know relevant structures that are responsible to develop it. Structures such as National Language Services of Department of Arts and Culture were mentioned as the main term bank of all the Indigenous African languages.

Some participants mentioned Department of Arts and Culture website, electronic dictionaries while others stated hard copies of Parliamentary, Politics, Mathematics, Election, Soccer, and others that are compiled by Department of Arts and Culture. Only one participant mentioned that terminology is accessed from our elders. Sepedi speakers are the one who are the term bank of the language Sepedi. From this theme, language practitioners, lexicographers and lecturers, their responses were similar. Unlike few students who do not have an idea where can they access terminology.

4.3.2 Common problems encountered in terminology creation

There are lots of problems in terminology creation mentioned by the participants in this study. The participants have realised that students have adapted to street language to the extent that they failed to express themselves formally in the correct manner. The new terms that are compiled are not disseminated to language users as a results this seems as if terminology is not enough. The various problems encountered lead to duplicated terminology lists from different collaborators that are not consistent.

Orthography and Spelling resources also have inconsistent terms and it becomes a problem when searching for translation equivalents.

There is a very big shortage of reference books such as specialised dictionaries. The Government does not give or rather offer much incentives to run these projects, as a result consultation meetings are limited and there is a duplication of projects compiled by different collaborators in different locations.

These various problems have caused a slow progress of terminology creation. Moreover, collaborators working on these projects lack knowledge on the terminology development process and there is a problem of insufficient money that is allocated for paying the collaborators.

The NLB of PanSALB is mandated to authenticate the completed terminology lists, but due to some reasons they fail to do so. This body that is supposed to authenticate terms is a small group that is given a lot of work with a small budget of running consultation meetings.

4.3.3 Language specific strategies used in developing terms

There are common strategies such as borrowing, transliteration, paraphrasing, semantic transfer, compounding, and others that they apply in order to alleviate such problems. All the indigenous languages use these strategies in their term creation. According to most of the participants, transliteration and paraphrasing are recognised as the best strategies.

Terms like cell phones, computers, album, cellulose, alarm and diabetes are very challenging in order to provide their equivalents in Sepedi. For example, in Sepedi cellulose becomes *seluluse*, when transliterated. This example is extracted from Multilingual Natural Science & Technology Dictionary (2005). Transliterated terms have both advantages and disadvantages.

According to some participant's transliteration is an advantage, as referents will not encounter any problems if they are already familiar with these terms. Transliteration is considered as a disadvantage if referents aren't familiar with these terms. The

equivalents become ambiguous in the target language Sepedi. Such terms become bias because only academics will understand those terms.

With the other strategy that alleviates zero-equivalents according to this participant is paraphrasing. To some extent, paraphrasing provides a translation equivalent in short. Paraphrasing to lexicographers creates problems because such words cannot serve as lemmas in the dictionaries. Some paraphrased terms in lexicography are too long and qualified to be translation equivalents only.

Some participants mentioned that semantic transfer should continue in term creation. Terms like car, cell phones must be given translation equivalents that reveal the current history. For example, **car**, its translation equivalent was *sefatanaga* by then, the term *sefatanaga*, is no longer used instead the translation equivalent of car is *mmotoro/ koloji*. The term **cell phone** by then was *sellathekeng* but now has changed and the correct translation equivalent is *sele*. The term *sele* is well known by everybody who is the speaker of the language.

If we allow technology to overtake us, then we will always experience inadequate terminology and creation of contradicting terms. In cases of translation of texts from English to Sepedi text, borrowed terms that do not have translation equivalents in Sepedi, are italicised. The italicising of terms in the texts show that the users already know term as it appears and no need to change it. For examples, Northern Sotho Sesotho sa Leboa Terminology and Orthography No 4 (1988), *piano/piano*, *radio/radio and algae/algae*. During consultation meetings, terms like Wi-Fi/ *Wi-Fi*, *AIDS/AIDS*, *HIV/HIV* were written as they appear in English, especially in the translation texts of Sepedi.

4.3.4 Structures that are meant for terminology development

According to the participants, National Language Division of DAC that is the main structure that developed terminology and serves as a term bank for all terms. The structures that are concerned with terminology development are the PLC's, PanSALB, NLU's, language bodies, Centre for Legal Terminology, Government departments, NGO's and Universities. The DAC, is the main body that develop terminology through the help of subject's specialists.

The government mandated the NLU's of PanSALB to compile dictionaries. At this point in time, the NLU's is the main body that was given the opportunity to compile dictionaries and the NLU managed to compile bilinguals and general monolingual dictionaries, no learners and specialised dictionaries. According to some participants the Terminology Development Section of National Language Section and Government departments are also structures that are looking at terminology development. Some mentioned that the elders must be the ones to develop terminology.

4.3.5 Model of term creation in Northern Sotho

The DAC that is the main structure that used the model of harvesting source terms belonging to different subjects in order to develop terminology lists. For them to develop it, they used collaborators of subject's specialists to translate them. The terms are then translated to give translation equivalents in Sepedi. The NLB of PanSALB authenticated terms in order to be standardised. There are various terminology lists compiled by DAC such as Politics, Legal terminology list, Parliamentary, Mathematics, Election, Soccer, Multilingual Natural Science and Technology and others.

In order to make this model to be productive in terminology development, the following should be corrected. Not any other persons should develop terminology, instead he/she must be a qualified someone from that field. Since this deals with translation, the qualified person must have done Translation and Linguistics Studies specialising in translation studies. There should be a common place where terminology development is going to be done, if it's at the DAC, Universities or PanSALB offices should be officially known to cater all the languages and serve as the centre of terminology development.

For example, in the legal terminology in Sepedi, terms were harvested from different sources by all people who deal with law. The main concern was to ease communication between laypersons and interpreters during courts sessions. Terms were gathered and given definition together with translation equivalents. This model must be applied in every subject by people who are relevantly qualified. Like in medicine, terms that are used every day between patients and doctors must be

harvested and defined. This process will minimise communication embarrassment between patients and doctors. All these processes should be performed by people who are qualified in those fields.

The present group that does terminology development are structures that are qualified from different degrees. For example, if a person has qualified in literature, there is no way he/she can do terminology development because it is not his/her field of specialisation. These different qualifications in terminology development cause inconsistent term lists. It is the duty of the Government or the department to hire language specialists who have relevant qualifications.

4.4 Analysis of findings

Most participants mentioned that terminology development is accessed from DAC documents, DAC website, books and electronic dictionaries. This was learned from lexicographers, language practitioners, lecturers, teachers and some students. While different authors accessed it from terminology lists compiled by the NLS Terminology section of DAC. DAC Terminology Section compiled different terminology lists comprising of different subjects.

During compilation of this terminology creation there are common problems encountered. The participants mentioned that most compilers lack knowledge of compiling terminology. The main problem was insufficient resources such as bilinguals, monolingual and scientific dictionaries and the Government is not prioritising development of language. Projects are run by different collaborators because the incentive to run the projects is not sufficient enough.

To develop terms there are language specific strategies used such as transliteration, borrowing, semantic transfer and compounding. According to most participants, transliteration and paraphrasing are regarded as the best strategies. Most of scientific terms are transliterated due to lack of translation equivalents in Sepedi. Paraphrasing served as another best strategy but the problem is that the translation equivalents are in short phrases. But for people who do not understand the term, it becomes user-friendly to them. In lexicography, they served as translation equivalents

but failed to serve as lemmas in the dictionaries. Authors from the literatures, prefer using transliteration and paraphrasing especially when compiling scientific terms.

Not any person can do terminology development. The participants mentioned specific structures like the NLU's that was mandate by the Government to perform that duty. The Terminology Development Section of NLS is another structure that develop terminology of different subjects. Different authors used terminology that was compiled by the NLS of DAC.

The terms that are developed are harvested from the English books. According to the participants compounding of paraphrase for now serves as the best model of term creation in Northern Sotho. Terms that are compiled through compounding of paraphrase are capable to be lemmas in the dictionaries.

4.5 Conclusion

The totally number of participants were twenty in number and have all responded. Out of the twenty participants, there were thirty and seventy percent performance. The thirty percent is made of some participants which according to the interview their responses were not clear and rather negative, while the seventy percent is made up of participants that were positive towards this study.

The participants responded to the draft of interview questions on the development of terminology. According to the researcher, majority of participants that responded similar is seventy percent which made a great success on the study.

CHAPTER FIVE

SUMMARY, RECOMMENDATIONS AND CONCLUSION

5.1 Introduction

This chapter, is constituted by the summary and interpretation of the research findings, conclusions, recommendations, contributions of the study and concluding remarks.

5.2 Research design and method

Chapter three outlines the qualitative methodology used in this study was explorative. The population was selected through the two samplings being random and purposive. The interview together with the tape recorder were the main tool to collect data from the participants. The researcher transcribed all the responses and analysed thematically.

5.3 Summary and interpretation of the research findings

The researcher learned that for terminology to reach students there are lot of suggestions made. Each University must have a language lab, wherein will serve as a term bank for all the languages around that vicinity. The language lab must be maintained in order to disseminate common terms. There must be a budget for language experts who will work on full time basis.

The terms that are created will be used around the University must be from the language lab. All terms from all subject's field must be catered in the language lab. Due to inadequate standardised terms, there should be full time structures that are phased with authentication of terms.

At each University there must be a website on language issues wherein new developed terms and new publications are made accessible to students and the staff covering all the subjects' fields. The developed terms must be publicised to the community libraries, Social Medias and digital platforms. In the remote areas where there is no internet infrastructure, hard copies will be a solution. There should be discussion of newly developed terms and regular publications of new terms be placed in the local newspapers, glossaries and medias.

It was suggested that all the departments of the Government and Universities must have language departments. They should conduct language awareness order to provide students with standardised terminology. By so doing, there will regulation of uniformity of terminology usage in their courses.

5.4 Conclusions

Term creation in Northern Sotho is a problem. In order to alleviate such problems, Government must put language development into first priority. There must be terminologists that are working on full time basis. The developed terminology must be disseminated to all the target language speakers in order to avoid duplication of inconsistence resources.

5.5 Recommendations

Given the findings of the research, it is recommended that for our language to grow the following duties must be performed:

- Terminology development should be accessed at Terminology Division Section of DAC and the NLU's offices.
- Common problems encountered should be included in the curriculum.
- Strategies applied in terminology development should be outlined for users.
- Structures that are supposed to do terminology development should undergo training, attend workshops and publish their articles.
- Model that is used should be user-friendly to target users.

- There must be a proper coordination between PanSALB structures with the National Language Services to produce resources that are common and useful to the users.
- The terminologists must update the existing terminology lists.
- The terminologists or relevant language bodies must use suitable terminology development strategies.
- The newly developed terms must be made accessible to the public by putting them on internet or any available resources.
- The terminologists should regulate the language website by making all new terminology development terms accessible to users.
- There should be full time structures that work with terminology development.
- Each Government institution must have a Language Unit wherein all the developed terms must be accessible in order to be used.

5.6 Contributions of the study

Since PanSALB is the main body that is looking on terminology development, should see to it that it coordinates its structures being NLB's, NLU's and PLC's with the National Language Services (NLS). The NLS and its collaborators is the main body that develops terminology to disseminate to different structures. Presently the only structure that is responsible for authentication is the NLB's. The NLB's is phasing a backdrop since they worked only if there is budget for that particular period. Sometimes the NLB's is overloaded with terms to work on them and time is limited.

This need full time language specialists for authentication. Whenever they met, each group changed what the last grouped have agreed upon it and results inconsistency. As a results, full time structures are highly needed to progress the terminology development. It was suggested that the NLB's should work with other structures in order to make a success.

5.8 Concluding remarks

There must be a board that is working on full time on term authentication, the very board must consult the community and with their completed manual of terms. The community that is the main structure that is having a final say because the language does not belong to the board but to the community.

For terminology to be developed, always collaborators are invited to work on the projects. The problems lies on the availability and dedication of collaborators, and every meeting there are new collaborators who changes what is been agreed on the last meetings. This results into lacking standardised terms but producing lot of duplication of inconsistence resources. The collaborators lack willingness due to no incentives.

At this pointing time, the NLU's is compiling General dictionaries not learners dictionaries. There is a need of more lexicographers having adequate knowledge to compile learner's dictionaries. The NLU's should work with other stakeholders such as language units from the provincial and national, universities and public institutions.

There should be a proper infrastructure such as writing retreats of developing terms for all language specialists in order to have uniformity of terms. Language specialists should know the best strategies of creating new forms, when to use the existing forms and furthermore the interlingual borrowing. This will achieve dimensions such as cognitive, linguistic and communicative understanding. There should be conferences, meetings and workshops concerning the writing of terms in applying the relevant writing strategies. The advantage and disadvantage of each strategy must be outlined as to when and why to use it.

It was suggested due to inadequate terminology, the structures such as Government departments, Universities, National public Enterprises, National public entities, NGO's, banks and private institutions should serve the interest of the public.

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APPENDIX A

CONSENT FORM

I agree to participate in the interview of this study upon the following conditions, and shall freely withdraw from the participation should I feel that the conditions are not being met:

1. The researcher has explained to me in detail the nature and purpose of the study.
2. The participation is voluntary and I have the right to withdraw without risking any penalty or loss.
3. That I shall remain anonymous in the study and that the raw data from this participation or any other interactions during the study will remain confidential. The data will not be used to disadvantage me, and that no other person other than me, the researcher and the supervisor will have access to the raw data.

APPENDIX B

Interview questions

1. Which structures are supposed to do terminology development?
2. Where do u assess terminology?
3. List the problems encountered in terminology development?
4. Provide best strategies in the term formation.
5. Which strategies are familiar in term creation?
6. How effective is the term creation strategies in Northern Sotho?
7. Who are responsible to authenticate terminology?
8. Is Northern Sotho/Sepedi having adequate learner's dictionaries?
9. What causes inadequate Sepedi terms?
10. How do you think terminology must reach students?
11. Which structures are responsible for compiling dictionaries?