THE REPRESENTATION OF PHONETIC-PHONOLOGICAL INFORMATION IN NGUNI DICTIONARIES

BY

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DECLARATION

I, the undersigned, hereby declare that the work contained in this thesis is my own original work and has not previously in its entirety or in part been submitted at any university for a degree.

Signature: Date:

ABSTRACT

The concern of the study of phonetics and phonology is the speech sounds of languages. Phonetics is concerned with the description and the classification of speech sounds. Phonology, on the other hand is responsible for the sound patterns of speech sounds in a given language namely, the sound inventory, permissible sequences and how the sounds change in different circumstances. This study examines and evaluates the manner in which phonetic-phonological information is applied in South African dictionaries with particular reference to Nguni dictionaries.

Dictionaries are regarded as authoritative linguistic tools, therefore, the phonetic-phonological aspects of the language is one of the important information categories that is included in dictionaries. A word as the linguistic unit consists of speech sounds which are in turn regarded as phonological units as well as phonetic entities. The phonetic-phonological signification of the lexical unit in the dictionary entry plays a role in access to facilitating the spoken form of the language recorded.

This critical analysis and evaluation of Nguni dictionaries reflects on the current approaches pertaining to the presentation of both segmental and suprasegmental features of speech sound. Secondly, it also demonstrates the types of pronunciation information that is lexicographically relevant for the thorough treatment of the lemma.

Although phonetic-phonological information is almost the prevalent feature of all dictionary types, there are problems encountered during its presentation. In the evaluation of Nguni dictionaries the treatment of pronunciation information is coupled with inadequacies and inconsistencies. This is due to the lack of lexicographic planning and the sound application of lexicographic principles.

It is evident from the investigation that pronunciation information remains the essential component of the dictionary entry. The inclusion of phonetic-phonological information requires lexicographic planning that is actually based on linguistic theories that are primarily aimed at practical lexicography. The general guidelines that are presented in this study compel lexicographers to introduce innovative methods when handling

pronunciation. The proposed approaches in future dictionaries will enhance the accessibility of information when harmonised.

It is concluded that lexicographical products in the multilingual South Africa should begin to document the spoken form of various languages for the general record of the sounds of the language and also for pedagogic purposes. A good phonological and phonetic description of the official languages is also pertinent especially in the design stage of the dictionary. The lexicographic approaches followed in the treatment of any linguistic information should based on the (a) functional criteria of the dictionary compiled and (b) also on the prospective user's skills.

OPSOMMING

Fonetiek en fonologie is die studie van die spraakklanke van tale. Fonetiek sien om na die beskrywing en klassifikasie van spraakklanke. Fonologie daarenteen is verantwoordelik vir die klankpatrone van spraakklanke in 'n gegewe taal nl. die klankinventaris, die toelaatbare sekwensies en hoe die klanke omvorm word in wisselende omstandighede, dit wil sê die fonologiese proses. Hierdie studie ondersoek die manier waarop foneties-fonologiese inligting in Suid-Afrikaanse woordeboeke, veral die van die Nguni-tale, vergestalt word.

Woordeboeke word gesien as gesaghebbende linguistiese werktuie en die foneties-fonologiese aspekte van taal kom as 'n vername informasiekategorie daarin voor. Die woord as linguistiese eenheid bestaan uit spraakklanke wat op hul beurt beide as fonologiese eenhede sowel as fonetiese entiteite beskou word. Die foneties-fonologiese komponent van die leksikale eenheid speel 'n betekenisvolle rol in die toegang tot die gesproke vorm van die opgetekende taal.

Die kritiese analise en evaluasie van Nguni-woordeboeke oorweeg die huidige benaderings wat betrekking het op die aanbieding van beide segmentele en suprasegmentele kenmerke van spraakklanke. Tweedens toon dit ook die tipes uitspraakinformasie wat leksikografies relevant is vir die deeglike uiteensetting van die inligting.

Alhoewel foneties-fonologiese inligting die mees algemene verskynsel in alle woordeboektipes is, is daar nietemin probleme met die aanbieding daarvan. Uit die evaluasie van Nguni woordeboeke blyk dit dat ontoereikendhede en inkonsekwensies voorkom. Dit is toe te skryf aan die gebrek aan leksikografiese beplanning en die tekort aan deeglike toepassing van leksikografiese beginsels.

Dit blyk uit die ondersoek dat uitspraakinformasie 'n essensiële komponent van die woordeboekinskrywing bly. Die insluiting van foneties-fonologiese inligting verg leksikografiese beplanning wat gebaseer is op 'n linguistiese teorie primêr gefokus op praktiese leksikografie. Die algemene riglyne wat in hierdie studie aangebeid word dwing leksikograwe om innoverende maatreëls toe te pas by die hantering van uistpraak. Die

voorgestelde benaderings vir woordeboeke van die toekoms sal die toeganklikheid tot hul inhoud verhoog indien die benaderings harmonieer word.

Die slotsom is dat leksikografiese produkte in die veeltalige Suid-Afrika die gesproke vorm van die verskillende tale moet dokumenteer beide as 'n algemene rekord en ook vir pedagogiese doeleindes. 'n Goeie fonologiese en fonetiese beskrywing van die amptelike tale is ook van belang veral in die ontwerpstadium van die woordeboek. Die leksikogafiese benaderings wat gevolg word in die behandeling van enige linguistiese informasie moet gegrond wees op (a) funksionele kriteria van die saamgestelde woordeboek en (b) ook op die vaardighede van die voorgestelde gebruiker.

DEDICATION

This study is dedicated to my late grandmother

Nohangile Bobotyana

Huntshu, MaNtsundu.

You were so inspirational in my life.

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LIST OF ACRONYMS AND ABBREVIATIONS

ACNKA	A.C. Nkabinde
adv.	adverb
Afr.	Afrikaans
b/n	isibizo/noun
bz	isibizo
CDROM	compact disk read-only memory
CIDE	Cambridge International Dictionary of English
cl.	class
COBUILD	Collins Cobuild English Dictionary
CSWAD	Concise siSwati Dictionary
CV	consonant, vowel
demons.	demonstratives
EPD	Everyman English pronouncing Dictionary
EZZED	English Zulu-Zulu English dictionary
Eng.	English
GDX	The Greater Dictionary of Xhosa
GMD	general monolingual dictionary
ideo.	Ideophones
interj.	Interjectives
IPA	International Phonetic Alphabet
LDOCE	Longman Dictionary of Contemporary English
LPD	Longman's pronouncing dictionary
MLD	monolingual learner's dictionary
MRD	machine-readable dictionary
nz/v	isenzi/verb
PD	pronunciation dictionary
PED	pocket electronic dictionary
PNDED	The practical Ndebele dictionary
phon.	phonetic
pl.	plural
pron.	pronoun
sg.	singular
SLNY	S.L. Nyembezi

s.nw.	selfstandige naamwoorde
szk	isenzukuthi (ideophone)
sz	isenzi (verb)
TD	translation dictionary
WAT	Die Woordeboek van die Afrikaanse Taal
ZED	Zulu-English dictionary
V	verb
v.conj	verb conjugation
tr.	transitive
OALD	Oxford Advanced Learner's dictionary of Current English

CHAPTER 1

ORIENTATION

1. INTRODUCTION

In recent times, the issue of phonetic-phonological information in the treatment of lemmata has been the focus of growing interest among linguists and lexicographers (Wells, 1985; Svensén, 1993; Bronstein, 1994). The argument for the inclusion of such information is that it is the most appropriate way of representing the language as it is spoken in a natural setting. The speech therefore plays an important role in the communication process.

A dictionary is regarded as an authoritative linguistic tool, whose central function is the description of the language. A variety of information categories is provided in a dictionary, namely, orthographical, phonological, grammatical, syntactical, morphological information etc. A dictionary aimed at recording the state of the language has a function of putting on record both written and spoken words as linguistic units.

A word as a linguistic unit is constituted by a number of information categories. Svensén (1993:5) divides these information categories into five main groups, namely, the formal categories, semantic, syntagmatic, encyclopaedic and pragmatic categories and the historical perspective. The formal categories are concerned with the form of the entry word. These comprised first of all the graphical form of words, i.e. spelling and syllabification, the second formal category is concerned with the phonetic form of the words, in this case the main focus is pronunciation and the third formal category is inflexion.

The basic concern of lexicography, that is, a science and art of compiling dictionaries is a word that is studied in different branches of linguistics. Singh (1982:5) describes lexicography as applied linguistics whose practical problems are solved by the application of the researches of linguistics works. For giving spellings and pronunciation of words in the dictionary the lexicographer is helped by the phonetic study of the language.

The domain of speech sounds is the study of both phonetics and phonology. This study, therefore, is investigating how the linguistic information on phonetics and phonology is applied in the representation of pronunciation in dictionaries. In the past, this kind of

information did not receive much attention and the main concern of a dictionary was the semantic component, whose focus is the meaning of the word.

To sum up, Al-Kasimi (1977) asserts that the nature of speaking and hearing will continue to be a proper subject of human curiosity, and phonetics and phonology will continue to be relevant wherever speech need to be explored and understood. Catford (1988:187) emphasises the role of phonetics and phonology as follows:

> The study of how words are organized into systems and utilized in languages is the central concern of phonology. Neither of these two linguistic disciplines is independent of the other. Knowledge of what features of sound are most utilized in languages determines what aspects of sound production are most worth studying in depth.

For any dictionary to provide effective and accurate information on pronunciation, theoretical linguistic information is necessary and this does not mean that the metalexicographical side is totally neglected.

A lexicographer should not solely rely on linguistic findings in order to perform the lexicographic task; a balance between linguistic and lexicographic principles is of utmost importance.

1.1   AIMS AND OBJECTIVES OF THE STUDY

1. To examine and evaluate the representation of phonetic-phonological aspects of lemmata in the South African dictionaries and in particular Nguni dictionaries.
2. To identify the current trends followed in the indication of pronunciation.
3. To present a critical analysis of the quality and quantity of phonetic-phonological information presented in Nguni dictionaries.
4. To propose a more suitable approach of incorporating pronunciation in African languages dictionaries.

1. 2   MOTIVATION

The research is addressing the part of the dictionary entry that is often neglected by lexicographers. It will assist both linguists and lexicographers to pay attention to the linguistic component of the dictionary so as to promote effective communication and also to develop new attitudes in the treatment of pronunciation in modern dictionaries. Recommendations for further research will assist in the new methods and also in the development of new dictionaries that may improve phonetic-phonological side of linguistics, which is concerned with the speech sounds of the language.

Linguists and lexicographers often present divergent views with regard to the issue of whether or not certain information categories such as grammar, morphology, and phonetic – phonological information including pronunciation should be included in a dictionary.

Those who hold a view against the inclusion of such information categories, mostly linguists, argue that every language has grammatical, phonetic, and phonological texts which describe in depth the structure, the phonological and the syntactic structure of that language. Anyone who needs such information can get it readily in those sources. The basic purpose of a dictionary is understood to be the provision of the meaning of the words, that is, semantic information.

This school of thought dates back to the seventeenth century where grammar books were regarded as the sole authority of linguistic information. Information on the pronunciation of words was entered in the grammar books. Dictionaries were mere word lists with the information on spelling and definitions. Contrary to this view several lexicographers see a necessity of the inclusion of linguistic information in dictionaries because in reality grammar books are involved in the teaching of languages whilst dictionaries deal with language usage.

Mitchell (1994) makes a strong motivation when arguing that the transfer of linguistic authority from grammar books to dictionaries was started in the eighteenth century. Dictionaries took over and embraced grammar and lexicographers are now regarded as the guardians of languages.

Lexicographers who argue for the inclusion of phonetic – phonological information on the other hand hold a view that a dictionary as the most reliable source that preserves and represents the language as it is spoken should indicate every aspect of that language to maintain its reliability.

Furthermore, a dictionary user does not have much time at his/her disposal to go and consult other sources. This might distract his or her attention from the text she/he was reading.

Although there is a general consensus on the indication of pronunciation information in dictionaries, there are varying opinions on the criterion of inclusion. Wells (1985), a proponent of phonetic- phonological description of languages is of the view that the incorporation of phonetic information should be based on the purpose and the type of the dictionary. He further emphasises that the purpose served by pronunciation indication is the same in both monolingual and bilingual dictionaries.

In collaboration with the consideration of the purpose of a dictionary Minaeva (1994) asserts that phonological information, particularly prosodic variation should be first and foremost indicated in dictionaries meant for the foreign learners of the language. The reason put forward is that bilingual dictionaries are designed for active use; therefore it is necessary for a learner to be aware of all the finer nuances that are not readily deducible from the written texts.

Al-Kasimi (1977) addresses the practical problems encountered in the treatment of phonetic–phonological information in bilingual dictionaries. He cites three problematic areas especially in a bilingual dictionary, namely, the type of transcription, the choice of the language to be transcribed and how much phonological information should be provided.

On the other hand Bronstein (1994) one of the ardent supporters of inclusion view points out his dissatisfaction at the extent of pronunciation information in general (unabridged) dictionaries. His argument is based on the following:

i.   The inadequate treatment of new pronunciation in the language.

ii.   The inconsistent treatment of regionally dictated variants.

iii.   The omission of pronunciation associated with certain social groups and certain discourse styles.

iv.   The omission of pronunciation changes due to the contexts in which numerous words commonly appear.

He therefore calls for the full treatment of pronunciation information in general dictionaries, because such a lack may result in incomplete if not inadequate information of present-day usage. The above arguments are emphatic on the fact that phonetic–phonological information is the feature of both types of dictionaries, namely, translating and general monolingual dictionaries.

Abercrombie (1978) however, cautions against the indiscreet manner of including pronunciation in dictionaries. He proposes fundamental decisions that can be taken before incorporating phonetic–phonological information in any reference book. The first decision to be taken should be that of whether or not pronunciation should be included at all. If the choice is yes, then what follows is (a) how extensive should it be, (b) method of incorporating pronunciation in the headword should be considered (c) the choice of notation system (d) and if re-spelling is the choice, one type should be decided upon (e) when phonetic transcription is preferred, a decision is to be made concerning the type of transcription (f) a choice of IPA principles and the alphabet should be adhere to and lastly (g) prosodic features should be represented.

Amongst all the lexicographers who support the inclusion of pronunciation, the type of transcription that is often chosen is a phonetic system either in phonemic or phonetic transcription. Fraser (1997) shares a different view. In her comparative presentation of the various systems of pronunciation guides, the non - phonemic respelling system is the best choice for the average dictionary user who is uncertain of how to pronounce a word.
She claims that non – phonemic respelling is more advantageous than the IPA transcription because it relies on the familiarity of the spelling- to- sound rules rather than on their systematicity.

In contrast to the above argument Wells (1985) is of the opinion that the use of the IPA symbols is most effective because of its ability to resolve the ambiguity in any orthography, which according to him is the main problem of any respelling system. In support of the use of IPA symbols, Gimson (1978) suggests that any model for pronunciation should be usable to the dictionary user, that is, a native speaker and the learner. He believes that the two main possibilities of achieving a significant degree of simplification are: a reduction in the number of phonemes in the system and a greater universality of phonetic specification of the terms in the system.

Considering the problems and fears entertained in the previous discussions, Sobkowiak (1996) sees a solution that can be brought about by the advancement of technology. His point of interest is how phonetic transcriptions can be handled in machine – readable dictionaries. Three widely used systems of MRD phonetic transcription are discussed from the point of view of their indexical search function. Their relative merits are compared and differences are pointed out.

In African languages dictionaries, phonetic – phonological information has been represented differently from what is the case in European languages such as English. This difference is necessitated by the phonological imperatives of the language and sometimes the tradition in the general treatment of such information. The only kind of information that has been primarily used to represent phonological information is tone. However, it is very often inadequately represented.

Schadeberg (1981) addresses the representation of tone in Bantu Language dictionaries. This is a comparative study looking into the question of whether lexical tones and tone classes are adequately identified in some dictionaries of the major South African Bantu Languages. His view is that the representation of tone is made complex by tonal alternations in the paradigms of verbs and nouns; subsequently it is inadequate and unsatisfactory.

However, the researcher of this study is not only focusing on tonal representation in Nguni dictionaries but aims at addressing every aspect of phonetic – phonological information in both existing and future dictionaries.

1.3   DEFINITION OF BASIC CONCEPTS

1.3.0 INTRODUCTION

The aim of this section is to give definitions of a number of concepts that may cause difficulty in understanding the study in its totality. In the description of concepts, the viewpoint of both linguistics and lexicography, particularly, phonetics and phonology and metalexicography will be considered.

1.3.1 PHONETIC – PHONOLOGICAL INFORMATION

In section 1.0 of this work the relevance of phonetics and phonology in this study has been clearly stated. Phonetics and phonology are two related disciplines of linguistics. Both are concerned with the study of speech sounds. Phonetics is concerned about how speech sounds are produced and classified in the languages of the world, and phonology on the other hand is concerned with the sound patterns and how they function in a specific language. Because a dictionary's focal point is the description of linguistic items, the speech sounds of each language should also be recorded so as to avoid mispronunciations.

The phonological system of a language is a description of the sounds with which it functions, and each language operates on a fixed number of differentiated phonemes. A phoneme is the smallest linguistic unit of sound that can signal a difference in meaning because of its contrastive nature.

In dictionaries the phonemes are recorded as contrastive units that can also communicate meaning. It is important also to mention that all phonological descriptions in a language should be based on verified phonetic data. In dealing with phonemes, phonetic realizations can give a better insight of what is taking place in languages. Roux (1991) describes phonetics and phonology as merely flip sides of the same coin without any interface involved. In the study of speech sounds it is reasonable to consider both sides of the coin. This means that, the speech sounds are always interpreted as phonological units as well as phonetic entities.

In view of lexicography, phonetic-phonological information is one of the principal components of a dictionary which constitutes the microstructural component of a dictionary entry: It is the role of an ideal dictionary to provide guidance on the spoken language in addition to the written form.

Hartmann (1998) defines phonetic-phonological information as one of the information categories presented by the compiler in dictionaries and consulted by the dictionary user and sometimes referred to as phonetic information because of the studies in phonetics and phonology.

According to the above argument, phonetic information is presented in dictionaries in the form of pronunciation to give information about speech sounds. It is displayed in the in the form of phonetic transcription or respelling of the headword.

Pronunciation, in turn, is described as the form, production and representation of speech. Roach (1992) further describes pronunciation as "the act of producing the sounds of the languages, the things that concern people are standard of pronunciation and the learning of pronunciation".

It should be considered that pronunciation does not only help in the production of speech sounds, it is a tool that can be used in developing languages to bring about stabilization and standardization of speech sounds in general and on the other hand to teach the users about new pronunciations. The duration of a language depends on the stability of its pronunciation of words.

To keep languages alive, the anomalies in pronunciation must be avoided and accurate forms of speech sounds should be put on record. Some dictionaries do attempt to present most common or dominant pronunciation of words and whatever variants are common in a language. An example of a typical dictionary entry and the placement of pronunciation is shown:

(1)   **ferrule** / 'feruːl; US'ferəl /

In the example above, the information on pronunciation is placed immediately after the headword and it is enclosed in slant lines. The recommended or common pronunciation is

shown first and after a semi-colon follows American pronunciation. Not only information on segmental features is indicated, that is, consonants and vowels, other pronunciation features such as length and stress is also represented.

The primary stress is shown by a raised vertical line / ' / and length by means of this symbol / : /. The representation of both segmental and suprasegmental phonemes assist the dictionary user in retrieving an overall pronunciation of the headword /ferrule/. This is supported by Hall (1964) when he points out that an accurate and thorough representation of all the significant units of sound can be given on both the segmental and suprasegmental levels.

Any transcription therefore needs to include the prosodic features, as they also constitute phonetic information. Suprasegmental features are aspects of speech that involve more than single consonants and vowels. The principal suprasegmental features that are usually recorded in dictionaries are stress, tone and length.

1.3.2   THE INTERNATIONAL PHONETIC ALPHABET

The International Phonetic Association is an organization that was developed by a group of European phoneticians in 1886.   In 1889 it published the International Phonetics Alphabet, a standard phonetic alphabet that is the most widely used system of transcribing the sounds of human languages.   The aim of developing the phonetic alphabet was the lack of correspondence between the spelling and the sounds.   The International Phonetic Association was based on the principle of one letter one sound and vice versa.

The International Phonetic Alphabet (the IPA) is a set of symbols that is intended to represent all the distinctive sounds of the world's languages in terms of well-defined phonetic categories. (Ladefoged, 1990:12).

From the above description, it becomes clear that IPA is a universal alphabet that is comprehensive enough to cope with the variety of sounds.   Because of its dual character, the alphabet is suitable for representing the phonological contrasts in a language and for showing the phonetic detail in particular utterances.

According to the principles of IPA association, the International Phonetic Alphabet is designed to meet practical linguistic needs, such as putting on record the phonetic-phonological structure of the language and providing the learners of foreign languages with phonetic transcription to assist them in acquiring pronunciation.

In order to represent the speech sounds in language descriptions, two transcription systems are recommended by the International Phonetic Association, namely, phonetic and phonemic transcription. By transcription, it means a process and result of writing down the speech sounds in a systematic and consistent manner, using a specific notation system.

It is considered that speech consists of two simultaneous layers of activity: speech sounds or segments, and the other features of speech, which extend over more than one segment, known as suprasegmentals. By means of an inclusive transcription the spoken word can be fully represented, for further information on phonetic symbols see also Appendix A.

Hartmann (1983:8) defines phonetic transcription as the technique of reducing speech to writing not by ordinary spelling, but by a relatively narrow representation of the phonetic details in the articulation of speech. In the phonetic transcription sounds are symbolized on the basis of their articulatory or auditory identity, regardless of their function in the language. The purpose of phonetic transcription is to cover all the possible shadings of sounds that may be found in a language in order to provide a more faithful record of speech.

The phonetic transcription can be described as broad or narrow transcription. A phonetic transcription, which is relatively detailed, is called a narrow transcription. It indicates the finer details of pronunciation features, either by using more specific symbols or by also representing some allophonic differences. Allophones can be described as the variants of the phonemes, which only occur in a detailed phonetic transcription.

Broad transcription, on the other hand is a kind of phonetic transcription, which is less detailed, it shows only those phonetic segments, which correspond to the functionally important units in the language. For some phoneticians, the term broad transcription is

synonymous with phonemic transcription, because it represents a sequence of abstract functional units of speech.

Roach (1991) differentiates the two phonetic transcriptions when stating that a phonetic transcription containing a lot of information about the exact quality of the sounds would be called a narrow transcription, while one which only included a little more information than a phonemic transcription would be called a broad phonetic transcription. For example, a word /kill/ can be represented with both broad and narrow phonetic transcription:

(2)

		Narrow		Broad Transcription
(i)	kill	[kʰil]		[kil]
(ii)	key	[kʰiː]		[ki]

As already stated the first transcription is a narrow transcription that shows how the word is exactly articulated, this is symbolised by the superscript H which represent aspiration, the other one has used only simple symbols and is not detailed as the narrow one. This example shows clearly that the IPA does not only provide symbols, which can unambiguously represent sounds, but also to be able to represent details of phonetic realization such as aspiration.

The alternative notation system recommended by the IPA Association is known as phonemic transcription. This is a transcription of a language that is based on its phonologically relevant elements, using symbols form the phonetic alphabet. In contrast with a phonetic transcription which shows allophonic distinctions in sounds as accurately as possible, a phonemic transcription is restricted to the linguistically differences, only the units that account for differences in meaning are presented.

It is often used to designate a transcription that uses simple set of symbols in order to symbolise the phonemes of the language. The utilization of this transcription requires a thorough knowledge of the phonological system of the language in order to give a good choice of distinctive units of speech.

According to the recommendations by the International Phonetic Association, a transcription that indicates phonetic details should be enclosed in square brackets [ ] and the one that only notes phonological contrasts may be enclosed in slanted lines or slashes / /.

In conclusion, one may notice that the International Phonetic Association with its introduction of IPA symbols and its principles has made a significant progress in the representation of speech sounds both in phonetic and phonological studies. Dictionaries, particularly those committed to codify the phonetic structure of a language may follow some of the principles set by the IPA. It is also important to note that some transcriptions do not necessarily conform to the IPA principles, and this will be clear when various notation systems employed by different dictionaries will be discussed in the second chapter of this study.

1.4   THE ORGANISATION OF THE STUDY

CHAPTER 1:   This chapter is the introduction of the study, consisting of sub-sections on the aims of the study, significance, methodology, literature review and the description of key concepts that will assist in understanding of the next chapter.

CHAPTER 2:   The discussion in this chapter attempts to identify the different types of dictionaries and to investigate the manner in which phonetic-phonological information is represented, in order to arrive at a set of criteria to be used in the evaluation of current Nguni dictionaries.

CHAPTER 3:   A critical evaluation and analysis of Nguni dictionaries in view of the methods and strategies followed used in the indication of pronunciation, the analysis will also focus on the quality and quantity of information incorporated in these dictionaries.

CHAPTER 4:   The chapter hopes to meet the South African needs in the representation of phonetic-phonological information with the focus on the improvement of phonetic information in existing dictionaries and also with a view to develop new dictionaries in the new millennium meeting the advances of technology.

CHAPTER 5:   This is the last chapter comprises of a summary and the general conclusion of the study.

CHAPTER 2

TYPOLOGY OF DICTIONARIES AND THE INDICATION OF PRONUNCIATION

2.0 INTRODUCTION

This chapter constitutes a brief overview of different types of dictionaries. The researcher is going to evaluate different types of dictionaries with a specific view on how they treat the phonetic-phonological phenomenon. Various manners of representations demonstrated in these dictionaries will be critically described in order to arrive at a general trend followed in the indication of pronunciation and will assist in the evaluation of Nguni dictionaries in chapter 3.

Dictionaries differ in shape, size and content, and this is a clear indication that dictionaries are categorized into different classes. In general, the classification of dictionaries is rather a complex issue; this is so because there are various approaches and theories that are applied in their categorization. At the moment there is no standard or agreed-upon classification of dictionaries.

Singh (1982) asserts that dictionaries can be classified into different categories on the basis of several criteria, varying from the nature of the lexical entry to the prospective user of a dictionary. Al-Kasimi (1977) on the other hand, tabulates a number of parameters that are characteristic of several dictionaries, namely, (i) scope, (ii) linguistic perspective, (iii) entry arrangement, (iv) the number of languages and (v) the user group(s).

By means of criteria such as the above one can now characterize different kinds of dictionaries. Again it is also important to note that according to the two theorists mentioned above, dictionaries display more similarities in regard to characterization than differences. Although there are similarities, dictionaries differ from one another in several ways, including their aims, their scope and the subjects they cover.

The prospective user of a dictionary plays a vital role in lexicographical planning and design. Dictionaries are compiled to serve the needs of various speech communities, and at the same time, the users have different reasons and expectations when consulting a

dictionary. Dictionary typologies should therefore be defined in terms of the user's profile. A good lexicographical product is expected to satisfy the needs and preferences of its prospective users.

For the purpose of this chapter, the scope of a dictionary as the criterion will be the focus chosen for the types of dictionaries in discussion. The term scope refers to both the macro and micro-structure, and it also looks at the kind of language group the dictionary is aimed at. The information categories it wants to account for is part of the scope. The identification of the user and the content to be included is of great help in dictionary-writing as it directs the lexicographer to the quality and quantity of information categories together with the method of representation.

The different kinds of dictionaries below will be described according to the above criterion in view of metalexicographical principles. From each type, the aim, the user and the manner of representing pronunciation will be described.

2.1   A GENERAL MONOLINGUAL DICTIONARY

A monolingual dictionary is the most popular used dictionary and it is regarded as the first type that needs to be compiled for an official recognized language. It is concerned with a single language and defines that language by itself. A monolingual dictionary could be comprehensive and aim at recording a wide variety of linguistic information. Such a dictionary is regarded as an authoritative linguistic guide and is usually consulted to retrieve a representative variety of information types. A dictionary of this nature is also known as a general dictionary.

According to Hartmann (1998) a general dictionary is a type of reference work intended to provide a comprehensive description of the whole language, with special attention to vocabulary, it is typically monolingual.

The general-purpose dictionary fulfils a number of different functions such as the presentation of the information on spelling, pronunciation, meaning, etymology and use. An entry of a general dictionary, therefore should attempt to cover all the facets of linguistics, such as phonetic, phonological, morphological, semantic, syntactical,

pragmatic, grammatical information etc. It is evident that the kind of words entered should represent various spheres of life and present a complete picture of the general language.

According to Landau (1984:8) a monolingual dictionary is written in one language and it is intended chiefly for the native speakers of the language, though sometimes for those learning it as a second language. In general practice, most monolingual dictionaries are not necessarily used by the first language-speakers; the advanced language- learners and researchers may consult them for various purposes.

In general, the primary function of a general monolingual dictionary intended for the language speakers is to record and describe the language, as it exists.   Because of the task "preserve" the nature of the linguistic information will cover both the past and the present state of the language that will be suitable for the various levels of the users. This calls for a very comprehensive dictionary entry that can satisfy the practical needs of those who consult it for different purposes.

According to Hartmann (1983) it is a general principle that a general dictionary should satisfy all the needs of its users equally. It would be unfair of a general dictionary to neglect one need in favour of the other. There should be a balance in the handling and treatment of linguistic information in a dictionary of this type.

Lexicographers are advised not to pick and choose linguistic information but to consider the practical needs of the users. It is generally recognised that the dictionary should include any type of information that is lexicographically significant.

In a survey conducted by Laufer et al (1994), it is found that the monolingual dictionary is often more successful in helping users find the relevant information. This is so because the monolingual entry can generally provide more detailed and precise information about the word than the bilingual entry, such as information about spelling, pronunciation, idiomatic usage, connotation etc.

2.1.1 THE TREATMENT OF PRONUNCIATION IN GENERAL MONOLINGUAL DICTIONARIES.

The purpose for which a dictionary is intended is a powerful determining factor. A comprehensive dictionary as a reference work is used as a device for decoding the language, but on the other hand it can be partly used for encoding purposes. By encoding, it means to be able to write and speak in the second language, whilst decoding means the comprehension of the language. Most often people consult a dictionary when they have difficulty with spelling or the pronunciation of either common words or hard words. This is also the case with mother-tongue speakers.

In support of this view, Svénsen (1993:9) describes the purpose of a monolingual dictionary as follows; "a monolingual dictionary assumes that the user's knowledge of the language is to some extent imperfect". Its purpose is thus to eliminate uncertainty and to fill the gap in that knowledge. The matter of the amount of pronunciation information in general dictionaries is debatable.

There is noticeable minimal representation of phonetic-phonological information in general monolingual dictionaries. The assumption is that the first - language speakers do not always consult dictionaries for the retrieval of pronunciation unless they are confronted by hard words or new words. Such an assumption has influenced the treatment of phonetic information, particularly its presentation.

This is a challenge, because for a long time, monolingual dictionaries displayed a semantic bias, that is, the meaning of a word has been regarded as the centre. If a speaker has a problem with the meaning of a word in his language, it may also relate to pronunciation. Such problems may lead to the look-up of phonetic information.

The purpose served by pronunciation indication is much the same in monolingual as in bilingual dictionaries; it is used to advise the user who is unsure of the spoken form of a word by recommending a suitable pronunciation for it (Wells 1985:45).

It has been a common practice to include at least one preferred pronunciation, with an alternate pronunciation. This information is given separately from the headword. A very

few number of dictionaries prefer a partial transcription, a transcription of the part of the word that is assumed to create problems for the user.

2.1.2 TRANSCRIPTION SYSTEMS

It is a general trend that the kind of transcription employed in monolingual dictionaries is either phonetic or phonemic. A phonemic transcription with IPA symbols is the most favoured method in American monolingual dictionaries. It is because there is a general view that full phonetic transcription is not suitable for native speakers because they have at least knowledge about the sound system of their languages.

It has been recognised that the phonemic system works well among the native speakers of the language because they possess the basic quality of the language sounds, but it is not suitable for language learners who are totally ignorant about the phonetic-phonological system of the target language.

Another reason why a phonemic transcription system is preferred for a monolingual native dictionary is because it is simple and easily understood by most dictionary users. The pronunciation information is given separately from the headword.

In other dictionaries information on stress and syllabification is shown on the headword and part of segmental information is given separately. This is consuming a lot of space and dictionaries recently indicate full pronunciation separately and it is placed immediately after the headword.

Although phonemic transcription is the choice of a few dictionaries, a majority of dictionaries prefer phonetic transcription. When utilised, each and every headword is followed by full phonetic transcription in square brackets. A good example is the *Woordeboek van die Afrikaanse Taal (WAT IX)*. WAT is a comprehensive monolingual dictionary not only for Afrikaans speakers but also for a number of users who are interested in the language, such as academics, translators, students etc. The kind of the users has influenced the compilers to provide adequate information on pronunciation. It has gone to an extent that it provides full pronunciation of compound nouns.

An example entry from *WAT* will illustrate the devotion of this dictionary in the representation of the spoken form of the word.

(3) laaibank   [laːɪ́baŋk]   s. nw.

(4) leeukop   [leːuˊkɔp]   s. nw.

The treatment of pronunciation in the above dictionary is commendable because it does not only help Afrikaans speakers to get information on common words but it attempts to provide other users with various forms of regional variants of Afrikaans words.

2.2   A MONOLINGUAL LEARNER'S DICTIONARY

It has been realized that dictionaries for the general use are not particularly suitable for the learning of a new language, because language learning imposes its own requirements on the format and content of a dictionary. In English lexicography monolingual learners' dictionaries have shown tremendous improvement in the field of lexicography.

A monolingual learner's dictionary is also written in one language, but the difference is that it is aimed at users who wish to learn a foreign or second language to meet communicative needs. This type of dictionary is classified as a pedagogical descriptive dictionary, which provides a total different service to its users.

Rundell (1987) describes it as a multi-faceted language learning resource. Its content is characterized by a number of leaner – features that may not be essential in a general monolingual dictionary. The purpose of a learner's dictionary is to assist the users in expressing themselves in the second language. For that reason the user's expectations or aims in consulting such a dictionary are to encode the language.

In order for a learner to produce the sounds or pronounce a word in the target language, information on phonetics and phonology is essential. There are three information types that are regarded as basic in any learner's dictionary, that is, good spelling, basic semantics and pronunciation information. To learn a new word, one must actually learn three things, its meaning, spelling and its pronunciation. Spelling and pronunciation goes hand in hand.

The correct spelling leads to accurate pronunciation. Nobody can claim to know a language without pronouncing the words of that language. For the learner who is attempting to use the dictionary as an aid to encode, pronunciation information is absolutely necessary.

Minaeva (1990) strongly feels that if one is after an active dictionary for the foreign learner, the indication of pronunciation is a necessity. Minaeva further claims that if a user is interested in learning a language, the knowledge of phonetic symbols is very significant.

It is clear that for a monolingual learner's dictionary to be able to assist a user to produce accurate sounds of the new language, the phonetic-phonological information should be provided in order to meet the reference skills of the user. The microstructure of the dictionary should be designed in such a manner that it obeys distinctions and pedagogical principles that are internal in the language.

Landau (1984:88) emphasizes that phonological information is more essential for the person who is trying to speak or understand a foreign language than for the native speaker. This is an indication that a monolingual learner's dictionary is supposed to give an extensive treatment of pronunciation information that can assist the user in the production of the language. For instance a general monolingual dictionary usually provides a dominant pronunciation, whereas in a learner's dictionary variant pronunciations are given in a wide range. This is to help the users to be provided with at least all possible pronunciations in the language.

2.2.1 INDICATION OF PRONUNCIATION IN A MONOLINGUAL LEARNER'S DICTIONARY.

As stated earlier on, a dictionary designed for learners of a second-language is expected to meet the demands of the learners. It serves as a teaching tool rather than a reference book. Therefore the manner of presenting information on pronunciation should be indicative of its pedagogical role. This is a challenge to lexicographers to design a rich microstructure on the formal content of the lexical item. The manner of representation should make it easier for the learner to retrieve correct and necessary information. These demands necessitate the learner's dictionary to give adequate information in order to answer some problems on pronunciation.

In the preface to *Longman's Dictionary of Contemporary English* (henceforth LDOCE), the policy on the treatment of pronunciation is explicitly stated as follows:

> Each word is followed by its pronunciation, given in the International Phonetic Alphabet. The symbols used are shown in the table at the beginning of this introduction. Alternative pronunciations are shown after a comma. If only part of the pronunciation is different, this part is given in the word shown by a hyphen (LDOCE p xx.)

LDOCE is aimed at the learners of English as the second language. Its aim is to provide required information on pronunciation so as to fulfil the needs of learners of English. The representation of pronunciation attempts to satisfy the needs of its target users.

Each and every headword is followed by information on pronunciation and if more information is required, such as pronunciation variations, that information is provided. It should be noted that the policy employed in *LDOCE* is a general trend followed in other dictionaries of this type. Information on pronunciation is obligatory in any dictionary designed for the learners; hence each headword is followed by a full transcription.

The entry examples below will illustrate how pronunciation is given in the above-mentioned dictionary:

(5)   teeth   /ti:θ/

        teethe   /ti:ð/

(*LDOCE* 1995:1482)

In the above examples, information on pronunciation is given separately from the headword. This allows space to provide as much information as possible. Pronunciation information is presented by means of the International Phonetic Alphabet. The reason for the choice of IPA symbols is clearly indicated. For instance in English the phoneme /th/ can be produced in two sounds, that is [θ] and [ð]. The purpose of IPA, therefore is to avoid confusion created by orthography. According to orthography the two sounds are represented by one grapheme /th/.

The IPA symbol has elegantly given two unique sounds to help the users, especially those who wish to produce accurate pronunciation of the two sounds by giving or providing one distinct symbol for each sound. Information of this kind is very significant for someone learning a second language. It should be remembered that accurate pronunciation is useful in the production of the language, in order to speak a language one has to master the speech sounds of that language.

To make sure that accurate pronunciation is provided, IPA symbols have been the choice in pedagogical lexicography. As explained in section 1.2, the use of IPA symbols is governed by a number of principles and conventions that are recommended by the International Phonetic Association in order to promote uniform representation of speech sounds in languages (see also Appendix A).

The IPA system of transcription is the most popular system employed in dictionaries that aims at the representation of spoken language. The transcription of the word /champagne/ in two different dictionaries demonstrates the effective use of IPA symbols:

(6)   OALD4   COBUILD
        ----
        champagne   /ʃæmˈpein/   /ʃæmˈpein/

The advantage of using IPA symbols is that segments are shown uniformly and each sound is represented by one IPA symbol. This has been proved very successful in resolving discrepancies and ambiguity that may be caused by orthographies or writing systems of various languages.

In both examples above pronunciation information is enclosed in slanted lines or slashes. This is assuming that the transcription is phonemic rather than a pure phonetic one. It does not necessarily show the allophonic differences, thus indicating the phonemes that can lead to differences in meaning and pronunciations.

In modern pedagogical lexicography, information about the phonetic and phonological structure of lexical items is gaining more and more attention. This is demonstrated by the fact that not only consonants and vowels are transcribed. Pronunciation features that can assist in the overall pronunciation of words are clearly indicated. For instance, when full

transcription is given, the primary and secondary stress is indicated by means of recognised symbols or stress marks.

Different dictionaries display different symbols for suprasegmental features and this is due to various in-house conventions. The IPA has recommended a list of suprasegmental features that can be used in the transcriptions of any language. In general practice main stress is shown by means of a superscript vertical mark / ' / and secondary stress is marked by a subscript vertical mark / ˌ / preceding the stressed syllable. *COBUILD* is an example of a learner's dictionariy that has a different policy of marking stress. All stressed syllables, particularly vowels are underlined, and this is an in-house convention.

It is characteristic of monolingual learner's dictionary to give alternative pronunciations of headwords. The most preferred pronunciation is given first and the variant follows. There are different signs used to show variations in pronunciation and this depends on the decisions of the lexicographers.

Below is an example that neatly demonstrates the treatment of pronunciation variants in different English monolingual learner's dictionaries:

(7)   HEADWORD   LDOCE   CIDE

(1) bronco   /ˈbrɒŋkau‖braːŋnkou/   / £'brɒŋ·kəʊ,$'braːŋ·koʊ/

(2) estuary   /ˈestʃʊəri, -tʃəri /   / £'es·tjʊə·ri,$-tu·eri/

In *LDOCE* (1995), the users are furnished with both British and American pronunciations. These are separated by two vertical lines, with British pronunciation on the left and American on the right. CIDE on the other hand has come forth with another method, British pronunciations are preceded by this mark / £ / and American pronunciation by a dollar sign. The two dictionaries attempt to assist the dictionary user in encoding both forms of English.

Sinclair et al. (1995) emphasise that information on pronunciation is an important part of any learner's dictionary, regardless of the method used. A pronunciation key provided in COBUILD is regarded as simple and intelligible. To make an example, *COBUILD* is also

designed for the learners of English but it has chosen to use an adaptation of the IPA symbols, which do not necessarily conform to the guidelines of IPA Association. What is really pleasing is the fact that the policy on the manner of representing pronunciation information is clearly described in the front matter of the dictionary to guide the user.

2.3 TRANSLATION DICTIONARIES

Translation dictionaries deal with more than one language in contrast to monolingual dictionaries. They are classified according to the number of languages described, the purpose and the prospective user, for example, if a dictionary is written in two language with the aim to serve the learners, that dictionary would be called a bilingual learner's dictionary.

The bilingual dictionary is most widely used genre of translation dictionaries. In general, translation dictionaries are commonly designed to serve the speakers of all languages involved.

It is therefore the responsibility of a lexicographer to ascertain that such a dictionary whether written in two or more languages, is offering an equal service to all its intended users. They are usually descriptive and selective. The vast majority of these dictionaries are usually designed for pedagogical purposes.

Dictionaries such as these play an important role in language learning and teaching, because they share some similarities with monolingual learners dictionaries, particularly in communicative processes. The nature of translating dictionaries allows them to perform compound communicative activities such as translating, productive and receptive use of the language. The users may consult a bilingual dictionary in English and Afrikaans in order to acquire the two languages.

According to Crystal (1987) acquiring a language involves two distinct skills: the ability to produce speech in a spontaneous way; the ability to understand the speech of others. Translating dictionaries may be used for both decoding and encoding the languages involved.

Ali-Kasimi (1983) distinguishes between a dictionary for production and comprehension. In a dictionary for comprehension, the lexicographer should include more entries with more senses. The entry words in a dictionary for production should be of general productive nature. This clearly means that an ideal bilingual dictionary for productive and comprehensive use should include (i) the phonemic structure of the word, morphemic, grammatical modification it undergoes, its syllabic habits, and its meanings. Information about pronunciation is more important for the foreigner of the language. A user who is consulting a bilingual dictionary in order to produce another language certainly wants to know the appropriate word and how to pronounce it.

Considering the aforementioned functions of a bilingual dictionary, any translating dictionary cannot afford to exclude pronunciation information. It is generally or customary for bilingual dictionaries to include pronunciation but what is problematic is the amount of information to be indicated. To make an example of how pronunciation is treated in a bilingual dictionary is to look at *The Oxford Duden-German Dictionary* (1990). This is a bi-directional bilingual dictionary that is designed for the speakers of both English and German. The pronunciation of a headword is given in square brackets immediately after the word. The notation system used is the International Phonetic Alphabet represented in both directions, that is English-German, German-English.

(8)   German-English   English-German
        Apostolisch [apɔsˈtoːliʃ] Adj.   Apostolic [æpəˈstɒlik] Adj

The word /æpəˈstɒlik / has two different representations, a German pronunciation and the English one. This is a very effective way of assisting both source language and target language speakers. It also meets the needs of any user who wishes to learn the two languages. The choice of IPA symbols is also indicative of communicative needs, to give an accurate pronunciation of each sound. The last sound is pronounced as [k] in English, whereas in German it is articulated as [ʃ]. In the *German-English Dictionary* not each and every word is provided with phonetic information and this is clearly explained in the front matter. For instance, not all abbreviations are transcribed phonetically.

The authors explain that abbreviations without pronunciations given are pronounced as their full forms, except for English ones consisting of two or more capital letters, with the stress on the last, e.g. BBC is pronounced [bi: bi:'si:].

The utilization of IPA symbols is a general method displayed by translating dictionaries, especially bilingual dictionaries. Although phonetic transcription is universal and precise, there are varying views on the kind of transcription to be employed in bilingual dictionaries. Al-Kasimi (1977) shows a positive view of phonemic transcription when he argues:

> As for the transcription of the materials in the body of the dictionary, it should be always phonemic except where the foreign learner is expected to go wrong without additional reminder, i.e phonetic symbols.

A decision such as above requires a detailed representation of pronunciation in the front matter of the dictionary. The front matter should provide the user with the phonemic and phonetic side of the language. A kind of transcription should present the target user with real significant features of speech.

Some translating dictionaries do not show pronunciation in the central list, that is, after the lexical item. For instance, the *Reader's Digest Afrikaans –English Dictionary* does not only provide pronunciation in the dictionary text, but in the pronunciation guide, a list of symbols is given with examples of keywords from each language. A pronunciation key is printed on a fold – out page, one at the front and the other one at the back page of the dictionary. This method is made user- friendly because a reader just opens the folder without paging.

2.4 A PRONUNCIATION DICTIONARY

A pronunciation dictionary is classified as a special purpose dictionary. It is a special kind of a dictionary that is concerned with the formal aspect of the lexical unit that is the phonetic-phonological form of the word. Its definite purpose is the documentation of correct pronunciation of the words of the language. It is sometimes known as the phonetic dictionary because of its focus on the phonetic component of the lexical item.

A phonetic dictionary is compiled to assist the first-language speakers as well as other speakers whose interest is to get accurate information on pronunciation. For instance, an English pronouncing dictionary is not only useful to English speakers; the users such as learners, teachers of English etc, may consult it. The role and function of a pronunciation dictionary is described by Singh (1982) as follows:

> Pronouncing dictionaries record contemporary pronunciation. They are also normative and are referred to for correct pronunciation. The information supplied in these dictionaries is different from the general dictionaries.

In the preface to *Everyman's English Pronouncing Dictionary* (hereafter EPD 1956: xv) the author explains that the purpose of the dictionary is to record, with as much accuracy as is necessary for practical linguistic purposes, the pronunciation used by a considerable number of typical Southern English people in ordinary conversation. This indicates that what is represented in a pronunciation is the way in which words are pronounced in spoken language, thus giving the true facts about the speech sounds of the language described.

2.4.1 INDICATION OF PRONUNCIATION

A pronunciation dictionary typically attempts to cover a wide range of the phonetic-phonological component of the language documented. The content of pronunciation is much more exclusive than other dictionary typologies discussed above. In a general dictionary, for instance, one dominant or standard pronunciation is given with at least one pronunciation variant. The dictionary entry is totally different; a headword is given in its spelling form with syllabification marks in order to give a thorough orthographic representation. It must be noted that other information categories are not represented in this dictionary; the focus is pronunciation.

After the headword, a preferred pronunciation is given first; this clearly shows that its function is normative. Although it seems to be prescriptive, immediately after a recommended pronunciation, a number of pronunciation variants are provided, thus covering dialects as well as other regional variations. It is unlike other genres, such as a learner's dictionary where only permitted variants are given.

The kind of pronunciation information is the same with other dictionaries, consonants and vowels are transcribed extensively giving information such as stress, syllabicity, which is rarely, represented in general dictionaries. A remarkable feature in *Longman's* Pronunciation *Dictionary (henceforth LPD)* is the indication of stress shift, which is marked with the symbol ˛ after the phonetic representation. The compound nouns that undergo stress shift are also indicated after the main entry, for example /ˌcontiˌnental ˈshelf /after the entry / ˌkɒntiˈnental ˛ /.

Looking at this example, in the main entry, a stress shift mark is placed showing that the stress may shift in certain environments. This practice is very essential in a dictionary that is aimed at giving better service to the representation of the spoken word. A pronunciation dictionary is giving more phonetic information than any other dictionary. A very interesting move that may be noticed in some pronunciation dictionaries is the representation of elision and insertion of certain segments. For clarity, elision is a phonological process whereby a sound is dropped during the production of speech, whilst insertion refers to a process where a sound may be added in between segments or sounds in natural speech.

In LDOCE, a monolingual learner's dictionary, the entry word *length* is transcribed as /leŋθ/ whereas in LPD /k/ is inserted between / ŋ / and / θ /. Inserted sounds are shown with a raised symbol in LPD and represented by italics in *EPD 15 ed*.

(9)	warmth	length
EPD15	/ wɔ:m*p*θ /	/ leŋ^{k}θ /
LPD	/ wɔ:m^{p}θ /	/ leŋ^{k}θ /

The illustration above is trying to show how a process of insertion is treated in the two pronunciation dictionaries. In other dictionaries such as monolingual dictionaries the two phonological processes are not indicated. The reason may be the fact that learners will get confused when provided with such an advance representation. The indication of elision and insertion in pronunciation dictionary confirms the devotion of these dictionaries in representing adequate pronunciation information.

The kind of transcription commonly employed in pronunciation dictionaries is the IPA system. Different types of these special dictionaries may opt for phonemic or phonetic

transcription in the use of IPA symbols. In *BBC Pronouncing Dictionary of British Names*, the two transcriptions systems are utilized, that is, a phonetic and a phonemic respelling method. It is explained that the two systems have been employed to indicate pronunciation, one for the benefit of those acquainted with the IPA's method of writing sounds and the other for the general user. To clearly distinguish the two notation systems, IPA symbols are enclosed in square brackets and the modified respelling is enclosed in rounded brackets. Some dictionaries do follow this method but others are using a phonemic transcription with IPA symbols and this is usually enclosed in slant lines. This is the case with *(LPD)* and *(EPD)*. The phonemic transcription used in the two dictionaries appear to be near phonetic as it chooses pure phonetic symbols in the representation of speech, this is done in order to promote accuracy.

The special dictionaries on pronunciation are very few. This is caused by the improvement shown by comprehensive dictionaries in the inclusion of pronunciation as one of the key elements of a dictionary entry. Learner's dictionaries have shown an extensive treatment of pronunciation in recent years. Although pronunciation is included in other dictionaries, the content and treatment is insufficient, the role of pronunciation dictionaries cannot be underestimated.

2.5. SUMMARY AND CONCLUSION

The content and the method of representing phonetic-phonological information depend on the purpose of a dictionary. It has been demonstrated above that if a dictionary is aimed at the learners of the language, pronunciation should help the learner in mastering both productive and receptive skills. To do so information should be detailed and well understood.

In general, various types of dictionaries have showed a big improvement in handling phonology. For instance a vast majority of dictionaries have followed a common method, that of putting pronunciation separately from the headword. This helps in the full representation of pronunciation, because stress is clearly shown and sometimes syllabification. The user gets information at one place. Pronunciation that is given is always the pronunciation of words in isolation but dictionaries like *LDOCE* have come up with the indication of stress shift, the means of showing stress in context. Concerning the

type of transcription, each dictionary chooses its own system according to its aims. The most utilized transcription is the IPA system.

In conclusion, the results show that there is a dire need for the inclusion of pronunciation in any ideal dictionary but the extent will relate to the purpose and the type of the dictionary. The table below display the general trends practised amongst various types of dictionaries with specific reference to European languages. The types of pronunciation features and the manner of representation are presented. The exhaustive treatment of pronunciation is found in learner's dictionaries.

Table 1

Phonetic-Phonological Information	Dictionary Types			
	GMD	MLD	TD	PD
1. Transcription System	I	F	I	F
2. International Phonetic Systems	I	F	S	F
3. Broad Transcription	I	F	I	F
4. Narrow Transcription	S	S	S	F
5. Stress	F	F	F	F
6. Stress Shift	I	F	S	F
7. Length	F	F	I	F

I = Infrequent

F = Frequent

S = Seldom

CHAPTER 3

EVALUATION OF PHONETIC- PHONOLOGICAL INFORMATION IN NGUNI DICTIONARIES

3.0   INTRODUCTION

The chapter constitutes a critical analysis of Nguni dictionaries in view of the representation of phonetic-phonological information. The Nguni dictionaries will be evaluated in accordance with the dictionary typologies available, looking at the purpose of the dictionary and the manner in which pronunciation information is presented.

Nguni languages belong to the African language family that makes them share similar linguistic characteristics. There are four languages in South Africa that constitute the Nguni language group, namely, isiXhosa, isiZulu, isiSwati and isiNdebele. They also belong to a large group of languages called tone languages in which pitch serves to distinguish word meanings.

Prior to 1994 South Africa had only two official languages and this had influenced the state of lexicography in African languages. The Nguni lexicography is underdeveloped and it exhibits an uneven availability of dictionary types. The most published dictionaries in Nguni languages are translation dictionaries, that is, either bilingual or multilingual dictionaries. There is a remarkable lack of comprehensive monolingual description, in isiXhosa for instance; there is no monolingual dictionary available yet. The problem of the uneven availability of dictionary types was also addressed in a report by Alberts and Mtintsilana (1990). They indicate that there are almost 100 translation dictionaries involving Afrikaans and other African languages.

This clearly shows that dictionaries were compiled in order to fulfill socio-political needs rather than linguistic purposes. The condition has resulted in the unbalanced dictionary typologies available in Nguni languages, that is translation dictionaries which are in majority and few monolingual dictionaries. The dictionaries that are going to be analysed in this chapter are, therefore, translation and monolingual dictionaries. The main focus will be the treatment of pronunciation information in both dictionary types.

List of the selected Dictionaries to be analysed and Abbreviations:

A. Translation Dictionaries

Title	Abbreviations
1. The Greater Dictionary of Xhosa Vol 3 (1989)	GDX3
2. The Zulu-English Dictionary (1964)	ZED
3. English-Zulu Zulu-English Dictionary (1990)	EZZED
4. Concise - SiSwati Dictionary	CSWAD
5. The Practical Ndebele Dictionary	PNDED

B. Monolingual Dictionaries

Title	Abbreviations
(i) Isichazimazwi Sanamuhla Nangomso (1992).	SLNY
(ii) Isichazamazwi 2 (1985).	ACNKA.2

3.1 THE STATUS OF THE SELECTED DICTIONARIES

3.1.1 *The Greater Dictionary of Xhosa (henceforth GDX)* is a comprehensive multilingual dictionary that aims at the full coverage of isiXhosa. It is an explanatory trilingual dictionary involving isiXhosa as a source language with exact translations into English and Afrikaans. *GDX* is encyclopaedic and one of its salient features is a very exhaustive addenda with both extra information on linguistics and cultural aspects.

With regard to the target users, it is designed to be a comprehensive source of reference not only for the mother-tongue speakers, but also for the scholars, researchers and students of both Afrikaans and English who intend mastering isiXhosa. Pahl (1989) describes its role as a long-felt need on the part of Xhosa speakers for an improved, comprehensive, lexicographical study of their language. *GDX* is therefore, compiled in three volumes, namely, volume 1 (with letters A- J), volume 2 (K - P) and volume 3 *(GDX* 3) covering letters from Q - Z. In 1989 GDX3 was published and the other two are near completion but available for research purposes.

3.1.2 In 1964, a translation dictionary under the authorship of professor C.M. Doke and B.W.Vilakazi was published. The *Zulu-English dictionary (ZED)* is a unidirectional bilingual dictionary with a monolingual macro-structure with its lemmata in isiZulu followed by English translation equivalents. As regards coverage, ZED has dealt with the vocabulary in its broadest possible range because it also included acquisitions from foreign languages, frequent hlonipha words, as well as a certain number of scientific, technical and theological terms

3.1.3 Another bilingual dictionary that is selected for evaluation is the *English-Zulu /Zulu-English Dictionary (EZZED).* EZZED is a bi-directional, bilingual dictionary which is designed to meet the communicative needs of English and Zulu speakers. It is a two-way dictionary which has a bilingual macro-structure organised in two alphabets, In the first section headwords are alphabetised in English and translated into isiZulu, whilst in the second part it is vice-versa. Concerning the inclusion policy and the manner of representation the two dictionaries, ZED and EZZED dictionaries are similar, except for some improvements such as the orthographical representation of the bilabial implosive in the latter.

3.1. 4 The *Concise* siSwati *Dictionary* (henceforth CSWAD) is a bi-directional siSwati-English/English–siSwati translation dictionary. It first appeared in 1981 with a sole purpose of documenting the language of "kaNgwane. In the preface to the dictionary, Rycroft (1981: vii) explains, " a compact dictionary of this size is inevitably limited in coverage, but a general selection of the most useful terms has been attempted, in the interests, it is hoped, of both siSwati and English speakers". Unlike other dictionaries described above, CSWAD is a mere translation dictionary with inadequate inclusion of necessary lexicographic information that is expected in a pedagogical bilingual dictionary.

3.1.5 Lexicography in IsiNdebele dates back to 1897 with the publication of the *Dictionary of the Tebele and Shuna Languages* by W.A. Elliot. In 1966, Rev. Pelling saw a need for a compilation of a modern dictionary that would provide a model for a standard, literary isiNdebele. In the preparation of *The Practical Ndebele Dictionary*, Professor C.M Doke and Dr W. B Vilakazi 's dictionaries were used as written sources. *PNDED* was revised in 1971 with the inclusion of more words in the language and specialist terms. The purpose of this small dictionary is to help both

isiNdebele and English speakers who wish to improve their communication needs, hence it is designed as a bi-directional bilingual dictionary. The textual structure is composed of the introduction, the word list in the two languages and a number of appendices at the back.

3.1.6 It has been highlighted in the introduction to this chapter that Nguni lexicography has a remarkable lack of explanatory monolingual dictionaries. Nkabinde (1998) maintains that the lack of explanatory dictionaries led to uncertainty and an erosion of confidence in the native speakers to use the language to meet the new demands and challenges.

In 1977, the Zulu Dictionary Project commenced with the aim of producing a monolingual dictionary in isiZulu. A standard monolingual dictionary, I*sichazamazwi* was produced by Professor A.C. Nkabinde in two publications, namely, isichazamazwi 1 and 2 in 1981 and 1985 respectively. Isichazamazwi is designed for use in schools as a result its inclusion policy demonstrates selectivity and economy. *Isichazamazwi 2* (henceforth *ACNKA.2*) is more improved than the first version hence it is chosen for evaluation in this work.

In 1990, *Isichazimazwi Sanamuhla Nangomuso* was published under the authorship of S.L. Nyembezi. Although, *SLNY* describes the isiZulu by itself, the identified users are different from *ACNKA.2*. The purpose of Nyembezi's dictionary is to document the language for the benefit of mother- tongue speakers and the learners of the language, particularly the youth. Consequently, the dictionary has included a wide variety of isiZulu words ranging from frequently used terms, technical and loan words. Unlike, *ACNKA.2,* various types of word categories such as adverbs and conjuctives have received a fair treatment.

3.2 SEGMENTAL PHONEMES AND THEIR PHONETIC TRANSCRIPTION

It is generally acknowledged that Nguni orthography is phonetically based. In most cases Nguni languages are pronounced as they are spelt, meaning that there is a one-to-one correspondence between spelling and pronunciation.

The writing system was based on the IPA and it attempted to close the gap between graphemes and phonemes. Although Nguni orthography is designed in such a way that each letter of the alphabet mirrors the sound of each segment, there are still discrepancies experienced in the representation of consonants and vowels, more especially complex graphemes such as ngc, ngx etc.

Such problems may result in uncertainties in the actual pronunciation of certain sounds. It is the aim of any transcription to make sure that each grapheme is at least represented by one unique and distinct sound.

The nature of Nguni orthography has a general influence on the manner in which segmental phonemes are represented in dictionaries. In the preface to the *ZED* (1964), the authors maintain that the orthography used in the dictionary is soundly based on the phonetic principles and has few anomalies. This argument suggests a clear move on the elimination of those anomalies. ZED is one of the bilingual dictionaries that have made a big attempt in the inclusion of phonetic information to offer better service to the user. The information on the pronunciation of speech sounds is described in the introduction and in the main dictionary text. The phonemes that are phonetically described are those of the source language, isiZulu.

In the introduction of *ZED*, information on the alphabet and the phonetic system of isiZulu is provided. A vowel chart is given with all seven vowels in their phonetic form. There are also two charts on the plain consonants and clicks consonants in their orthographic form without phonetic symbols and the reader is referred to the dictionary text, "for phonetic equivalents, descriptions, and examples consult the dictionary entry at the commencement of each letter or combinations of letters".

The strategy used is not user-friendly as it fails to provide full information at the same place. The approach would be complete if phonetic symbols were given in the chart rather than referring the user to the other part of the dictionary, what is given is the manner of articulation and the place of articulation of each consonant. Extensive and adequate information on the phonetic system of isiZulu in this section would assist the reader to have a complete understanding of the speech sounds before opening the main text. However, the manner and the place of articulation of consonants is provided in the table. Below is a table extracted from ZED tabulating the clicks in isiZulu.

(d) Click Consonants:

	Dental		Palato-alveolar		Lateral	
Radical	c	nkc	q	nkq	x	nkx
Aspirated	ch		qh		xh	
Voiced	gc	ngc	gq	ngq	gx	ngx
Nasal	nc		nq		nx	

For descriptions and examples consult the dictionary entry at the commencement of each letter or combination of letters.

As already stated in the introduction, the compilers have furnished the reader with further pronunciation information at the commencement of each letter in the world list of the dictionary. In the same dictionary the phoneme /b/ is phonetically described as follows:

> **b** Voiced bilabial explosive. In Zulu this is pronounced with voiceless stop when used initially. In the combinations *mb* the nasalization of the stop produces voicing and *b* is pronounced as in English. *b* is phonemically distinct from *b* (implosive), as for instance *beka* (look) and *ɓeka* (place) ...

From the above phonetic description, one would doubt whether the given information is what is required by the dictionary user. The information given here is too detailed when one is desperate to look up correct pronunciation. With a phonetic transcription given immediately, the reader would easily understand the sound, especially an advanced student or any sophisticated user, as it is clear that the dictionary is for English speakers who have advanced knowledge in phonetics and phonological studies.

For an average user or learner, it would be more effective if a phonetic transcription was given with a brief information on the manner of articulation and a few examples in word combinations. The representation of /b/ in its orthographic form demonstrates the inconsistencies in the treatment of phonetic information at the commencement of each letter in both dictionaries, namely, ZED and EZZED.

Any kind of information given in a dictionary like ZED should be clear and easily understood by the user. It would be very successful if the rest of the information were given in the front matter with both Zulu and English examples. The method used above is uneconomical as it consumes a lot of space with redundant information. The bulk of information given may not be essential at the time of information retrieval.

The type of transcription exploited in the two dictionaries is more or less the same. In the *EZZED* (1990), a bi-directional dictionary, pronunciation is indicated in both directions, that is, English-Zulu and Zulu-English parts. In the first part each lexical item is followed by a broad phonetic transcription enclosed in square brackets, whilst in isiZulu part, phonetic transcription is only given on problematic words. This is mostly at the commencement of the first letter of the alphabet.

The unequal treatment lies with the manner in which information is presented. The two entries from the dictionary may explain this phenomenon much better.

(10)   a   [ei, ə]   =   English (Part I)

(11)   q   (phon.)...   =   Zulu   (Part II)

The phonetic representation is represented in two different methods. In English, pronunciation is enclosed in square brackets. In the English - Zulu part it is clearly stated that the transcription followed is the IPA system. Surprisingly, in the second part of the same dictionary phonetic transcriptions are inside round brackets and this is not explained in the front matter. The practice displayed is an arbitrary handling of significant information. The use of round brackets may have different interpretations. In some dictionaries round brackets assume that the information presented is not phonetic and symbols used may be a modification of the IPA.

An explanation that in the Zulu part a different approach is followed would assist the user much better. Such details do not only guide the user, but also assist the lexicographer to form a link between the introductory part and the text of the dictionary. In example (14) above, for instance the phonetic rendition of /q/ is [ ] whereas in the introduction it is remarked that the dictionary has adopted a new symbol for the form /q/ and is [!]. Inadequate information in the introduction results in inconsistent way of treating certain lexical items in the dictionary text.

During the presentation of phonetic-phonological information, a certain part of the lexical item whose pronunciation is unpredictable from its spelling receive more attention. A kind of phonetic transcription that only concentrates on the individual part of the word is known as partial transcription. Although partial phonetic transcription is utilised in EZZED and ZED, it is done in very few occasions. Let us observe how the ejective /k/ is consistently marked by means of partial transcription:

(12) (i) **kela** (6.3---k?) v.

(ii) **ketsheza** (3.2.9---k?) v.

The transcription of the ejective sound in the above examples illustrates how partial transcription is treated generally. The decision to mark the sound is the simple way of distinguishing the ejective /k/ from what the compilers term a radical form. Doke and Vilakazi (1958) explain that the ejected form or 'sharp –k' occur in a limited number of words and wherever this occurs it is noted in the dictionary entries. In reality, this information is for the benefit of English speakers who may erroneously pronounce the sound as the aspirated /k/.

Another interesting approach followed in the two dictionaries is the exploitation of two transcription systems. Alternatively, quite a number of lexical items are presented in full phonetic transcriptions. In full transcription the lexical item is transcribed as a whole, whereas in partial transcription only that part of the lemma that could cause problems is transcribed. The entries below can demonstrate this practice:

(13) (i) **muu** (mɓu::, 8-3-8) ideo

(ii) **leyá** (6.3 phon. leːjáː) pron

(iii) **abé** [ˀaɓɛː5.3-5] interj of reproving surprise.

As illustrated above the compilers have achieved their aim because full transcription has made it possible to indicate long syllables by a symbol /ː / and /::/. The indication of other suprasegmentals such as this one is practically impossible in partial transcription. Another observation from the presentations is the inconsistent location of pronunciation information either in square brackets or round brackets. In example (i) a phonetic transcription is positioned first and immediately followed by numbers that represent tonal information, whilst, in (ii) the first information that is provided is the information on tone, an abbreviation

'phon' that stands for phonetic and lastly the full transcription of the lemma. The variations demonstrated above do not only indicate an adhoc system followed in the indication of phonetic information in the dictionary, but they are also confusing to the dictionary user.

The GDX has provided extensive information on the phonetic - phonological component of isiXhosa speech sounds. In the introduction the user is furnished with very elaborate information on single phonemes and those that occur in combinations in their alphabetic order. A detailed table on the speech sounds has been given in each language, namely, isiXhosa, English and Afrikaans. The key to pronunciation is well structured with phonemes in their orthographic form, IPA symbols and their phonetic descriptions with at least one key word with equivalents in the other two languages.

In the case of click sounds the compilers have gone an extra mile by including a third column of what is described as the South African phonetic symbols for the clicks, for further information see Appendix C. The provision of two kinds of IPA symbols may look very complicated to the ordinary user; it is useable to the users who have more advance knowledge in phonetics.

The treatment of pronunciation information of phonemes at the beginning of each letter of the alphabet in the dictionary text is commendable in GDX. Unlike ZED and EZZED, in GDX all the phonemes are transcribed phonetically regardless of whether their pronunciations are predictable or not.

This consistent transcription of each and every phoneme closes the gap created by partial transcription of only problematic words in the dictionary. The correct articulation of the speech sounds by the learner of isiXhosa is at least guaranteed.

The manner in which the information is presented at the commencement of each letter is readily accessible. A phoneme is given within its orthographic form in bold face and phonetic information is given in normal print and is enclosed in brackets. After the information in brackets a phonetic description of the sound in brackets is provided. This is a way of helping the users to master the specific sound before coming across with different lexical items.

The use of phonetic symbols in the representation of phonemes is very effective in the case of the consonants that have the same spelling but are represented by different sounds or pronunciation. The dictionary user is warned at the very outset even before the access of the headwords.

An example below will show how IPA symbols have unambiguously represented the segment /tsh/:

(14)

Tsh

tsh [tʃˀ] (i) isidubuli-sifutho somphambili-nkalakahla esinohahazo: *tshotsho!* emva kwesinkantazi siyajika sibe sesitsolisiweyo: *iintshaba:*

(ii) isidubuli-sifutho somphambili-nkalakahla esitsolisiweyo; kuloo magama angemaninzi phofu sibonakaliswa ngale ndlela: [tʃʔ]: *ukutshabhisa; ikratshi;* emva kwesinkantazi u-*n* sisoloko sisesi sitsolisiweyo njengokuba kuchazwe ku-(i):

(i) aspirated prepalatal affricate [tʃʰ]: *tshotsho!* it serves you right! after the homorganic nasal it becomes ejective: *iintshaba,* enemies;

(ii) ejective prepalatal affricate; in the limited number of words in which it occurs it is indicated by the IPA characters [tʃʔ]: *ukutshabhisa,* demean; *ikratshi,* pride; after the homorganic nasal *tsh* is invariably ejective; see (i) above.

(i) geaspireerde prepalatale affrikaat [tʃʰ]: *tshotsho:* goed so! na die homorganiese nasaal *n* word dit 'n ejektief: *iintshaba,* vyande;

(ii) ejektiewe prepalatale affrikaat; in die beperkte aantal woorde waarin dit voorkom, word dit foneties só weergegee: [tʃʔ]: *ukutshabhisa,* verlaag; *ikratshi,* hoogmoed; na die homorganiese nasaal word *tsh* altyd ejektief; sien (i) hierbo.

The use of IPA has successfully demonstrated the phonetic distinctions of the two sounds, orthographically represented as one grapheme. In example 14(i) the phoneme (tsh) is phonetically represented as the ejective alveo-palatal affricate and in (ii) the same phoneme is symbolised as the aspirated alveo-palatal affricate. The allophonic differences between the two sounds are signified by two distinctive IPA symbols, aspiration is shown by means of a superscript [ʰ], whilst ejection is explicitly differentiated by means of an apostrophe ['] which is a standard symbol to mark all ejective sounds. With the provision of this detailed phonetic representation, *GDX3* has succeeded in avoiding the mispronunciation of the two sounds, particularly [tʃ'] which is spelt like an aspirated phoneme in its orthographic form.

The phonetic-phonological information tabulated above is always given in the isiXhosa part in the dictionary text. *GDX* 's role is not different from other translation dictionaries designed for pedagogical purpose. Besides giving detailed information on semantics for comprehensive use, it also succeeded to provide the dictionary user with essential information on how peculiar sounds of the language can be accurately reproduced. This is not only necessary for Afrikaans and English speakers, but also for language-speakers who have difficulties with certain words.

Not only cumbersome words are transcribed phonetically, Nguni dictionaries have also furnished their users with pronunciation information of the new sounds that are brought about the process of borrowing. Because of the interaction between languages, there is a high rate of loan words entering various languages. It is the role of a dictionary to record those sounds for the benefit of both the mother- tongue speakers and the learners of the language. The inclusion of loanwords is rather characteristic of the more recent publications than the older dictionaries.

New speech sounds that are introduced in these languages may increase ambiguity as they have sometimes the same graphical forms with certain phonemes already existing in the language. This necessitates reasonable means to make sure that their phonetic symbols are distinctively represented to avoid confusion.

GDX as one of the recently published comprehensive dictionaries has also included loanwords in its macrostructure. Below are two pairs of lexical items that show the identical spelling with different pronunciation. The phonetic transcription has neatly distinguished two words from each pair by providing IPA symbols. A symbol > indicates the language from which the word is borrowed.

(15)   /gr/   (i)   i·**grama** > Eng [gr] b/n: (grammar)

       (ii)   i·**grangqa**   [ɣ] b/n: (brandy)

   /kr/   (iii)   i·**kram**   >Afr   [k'r] b/n: (hasp and staple)

       (iv)   uku·**kramza**   [kx'] b/n   (chew something crisp)

                                      (GDX Vol. 1 unpublished)

The diagraph in example (i) and (ii) is represented by two speech sounds. The two acquisitions from English and Afrikaans have introduced two new speech sounds in isiXhosa. In example (i) a grapheme /gr/ is represented as a breathy voiced rolling affricate whereas in (ii) it is pronounced as one sound, a breathy voiced velar fricative. The distinction of the sounds in (iii) and (iv) is the position of the symbol for ejection. The IPA form of the two phonemes in their pairs is also presented in the front matter of the dictionary (see also Appendix C).

The two headwords in (i) and (iii) are Xhosa words borrowed from English and Afrikaans respectively. The information given does not only assist the foreign user but can be successful in guiding even the first language speakers to locate correct pronunciation.

In CSWAD the phonetic information is also given in the front matter. The author has a brief section that is solely discussing the siSwati pronunciation system. It is also stated that any information on English pronunciation falls outside the scope of this concise SiSwati-English/ English-siSwati dictionary. The dictionary user that is interested in English pronunciation is expected to consult any English dictionary.

The two notational systems chosen to describe the speech sounds in the alphabetical list provided in the introduction are (i) the respelling and (ii) the phonetic transcription system. The use of the two systems clearly demonstrates the pedagogic role of the dictionary, that is, to enable the English speakers to acquire the speech sounds of isiSwati. When the respelling system fails to supply adequate information, phonetic transcription is alternatively utilised.

The IPA symbols are not used in the dictionary entries but finer distinctions in pronunciation are symbolised by diacritic marks. It is therefore important to demonstrate how respelling is used in the dictionary:

(16) (i) **bhongwane/** bó- n.   throat; larynx
   (ii) **ímbokódvo/** tim- n.   upper grinding stone
   (iii) **bodvwa** quant.   they alone (cl.2), it alone (cl.14).

The dictionary entries from Rycroft (1981) illustrate how the respelling system with diacritic marks is used in the whole dictionary. The pronunciation information is indicated on the headword. The transcription system above looks very simple because it uses the ordinary letters of the alphabet and it also favours those who are threatened by IPA symbols. Another prominent feature of this dictionary is the marking of breathy voiced sounds (consonants and vowels) rarely marked in other Nguni languages. The subscript dots below some consonant in these examples mark breathiness. Sloat et al (1987:20) defines breathy voiced sounds;

> In what is called breathy voice, the vocal cords vibrate
> normally along part of their length while the remaining
> portion of the vocal cords are held too far apart to
> vibrate. This permits a large amount of air to escape.

One may conclude that the use of the diacritic marks, particularly the marking of breathy voiced sounds on the orthographic form creates a very confusing appearance. It is also ineffective as it fails to give the exact pronunciation of the sounds.

PNDED has very limited phonetic-phonological information. It is only indicated in the introduction of the dictionary. The alphabetic guide of isiNdebele phonemes is given in their orthographic form with a phonetic description or a respelling. This dictionary has been very successful in avoiding the use of phonetic symbols. Take a look at the following examples from the alphabetic list from PNDED:

(17)

    (i) a - as in father

    (ii) b – implosive "b" no equivalent in English

    (iii) dl – no equivalent in English. Similar to "dl" in saddler, but the tip of the tongue is placed further back from the upper teeth.

The transcription system followed is respelling that is strictly based on the English alphabet with no diacritic marks. The information provided here is incomplete as it is difficult to supply English equivalents of other sounds of isiNdebele. The bilabial implosive is described as: " implosive 'b' no equivalent in English". This is a good example of showing the deficiencies of a respelling pronunciation guide. Rather than helping the non-isiNdebele speaker, the information in (ii) and (iii) is incomplete and misleading. The phonetic description of the sound with the transcription in IPA symbols would have furnished the desperate user with the relevant information.

In both monolingual dictionaries selected for evaluation there is no attempt of handling segmental phonemes and this needs to be improved in future dictionaries. The only type of phonological information included is the information on tone and this will be discussed in details in section 3.4.

3.2.1 VARIANT PRONUNCIATIONS

The variant pronunciation is often included when there is an alternative way of pronouncing a word in a language.   It should be pointed out that only dictionaries that have dealt with this matter are evaluated.   As already stated in the previous section, each phoneme is transcribed phonetically at the beginning of each letter. When there is any variation in pronunciation it is also provide next to the standard pronunciation. In EZZED the variants are only indicated at the phonemic representation whereas in GDX it is also shown at the micro-structural level, that is, after the headword. The examples below show how the variant pronunciations are treated in the two dictionaries

(18)

> (i)   **kl** (kx or kɬ) Ejective velar affricate consonant, or ejective velar lateral affricate.
>
> (ii)   h (phon. h and **x**) Unvoiced glottal fricative consonant, pronounced by some speakers and on some occasions as unvoiced velar fricative.

In the first two examples two conjunctions are used to separate the two pronunciation forms and in GDX a standard pronunciation is placed immediately after the headword and after a punctuation mark, a comma, a variant is indicated. The use of a punctuation mark is economical and simple. The indication of variants is very essential in any explanatory dictionary so that it does not become prescriptive.

3.2.2   SYLLABIC CONSONANTS

A syllable is described as a unit of pronunciation that is larger than a single sound and smaller than a word. In the discussion above a general treatment of segmental phonemes in dictionaries is evaluated. It is appropriate therefore also to look at the representation of syllabic consonants in Nguni dictionaries. A syllable is also important in the representation of speech because it plays a significant role in the manner in which certain syllables are pronounced and the disregard of this role may result in confusion and inaccurate pronunciation in dictionaries. The representation of syllabic consonants in dictionaries is commonly neglected. Syllabic consonants are special syllables that do not have vowels as their components. Nguni languages are characterized by two nasal sounds. There is an

inadequate representation of syllabicity in some Nguni languages, if it is indicated there is no standard method followed.

GDX, ZED and EZZED are the only dictionaries that have attempted to address the issue of syllabicity. Because of the stem tradition followed in the lemmatisation of word categories, there are instances that needed the marking of syllabic consonants. The marking of syllabicity at the commencement of the letter /m/ in ZED is promising because the compilers see a need to mark it when they remark:

> Note also the occurrence of two *m*'s in such words as; *ummbila*,
> maize (**u<u>m</u>mbi:la**) and *wamminza*, he swallowed him **wa:<u>mm</u>i:ndza**,
> where the first *m* is syllabic and the second homorganic or radical.

In order to distinguish between the two nasals, a syllabic nasal is underlined. The need to mark such distinctions is appreciated but in the dictionary entries it is not followed. In the headword ummbila the first m is left unmarked. It is assumed that the information given at the beginning was enough. The optimal information on syllabicity should have been provided if it was marked on all the cases that would lead to pronunciation errors.

GDX on the other hand has attempted to mark syllabic consonants on word categories such as relatives, copulative stems, and adverbs, but this has been inconsistently done. Sometimes a diacritic mark is placed between the syllabic nasal and adjacent consonant and in other cases only a transcription is used to mark syllabicity.

In an entry - mfamlibe (long ago) which is the adverb of time, a marker /'/ is placed between /m/ and /f/. This is used to help in the pronunciation, because during pronunciation the bilabial nasal /m/ is articulated separately from the fricative /f/, these are two different sounds not one sound. To avoid confusion between the lexical items that have an initial sound /m/ a lexicographic device or a phonetic sign is required. Without the sign /'/ which is used in GDX2 the syllable would be pronounced as a nasalised plosive that constitutes an affricate [ɱɸf'].

The use of an apostrophe as a sign to mark syllabicity may be confusing, because it may have several interpretations such as the omission of a letter, or an ejective sound in phonetics. A suggestion on when and how to indicate syllabic consonants will be discussed in chapter 4 of this study.

3.3   SUPRASEGMENTAL PHONEMES AND THEIR REPRESENTATION

The examination of sound contrasts cannot only depend on the result of differences between segmental phonemes. Sound contrasts by means of suprasegmental features of speech should also be considered. The major suprasegmental features of speech are pitch or tone, stress and length.

Tone is the most salient feature of Nguni languages. It became clear in previous discussions that a large number of segmental phonemes are predictable in Nguni orthography, but other elements such as tone are not predictable and this resulted in a consistent marking of suprasegmental features in most dictionaries.

To support the idea Hill, as quoted by Al-Kasimi (1977), argues that the current writing systems in the world have been successful to attempt to record primarily the segmental phonemes; but they overlook the suprasegmental phonemes such as separator, stress and pitch.

3.3.1 INDICATION OF TONE

In Nguni languages lexical tone is exploited for the purpose of differentiating between segmental identical words. According to Welmers (1973) one of the functions of tone is to participate in distinguishing different lexical items from each other.

In dictionaries, tone is used to show the overall pronunciation of words by marking each syllable with its inherent tone. On the other hand tone can be used to distinguish lexical items that have identical sequence of segmental phonemes but have different tonal patterns that can result in different pronunciation and meaning. Tone has also contributed to the design of the macrostructure of some dictionaries, because the superscript numbers distinguishes the lexical items that display the same graphical forms and same tonal patterns, and consequently regarded as separate headwords. Two entries from two Nguni

dictionaries demonstrate the role of lexical tone as a phonological disambiguating factor of lexical items.

(19)　(i)　　**-béle**　(î (ílí) - ámá-) *bz*　　　　　(breast)

　　　(ii)　　**-belé**　(î (ílí) - ámá-) *bz*　　　　　(sorghum)

SLNY (1992)

(20)　(i)　　**í.thàngà** b/n　5/6:　　　　　　　(thigh)

　　　(ii)　　**í.thàngá** b/n　5/6 *****tàŋga:　　　　(pumpkin)

GDX3 (1989) (see Appendix D)

In the two pairs in example (19) and (20) the lexical function of tone in Nguni languages is clearly illustrated. In all disyllabic nouns above, the tone difference is in one syllable, for instance in 19 (i), the first syllable is marked by high tone, whilst in 19(ii) the first syllable is low-toned. In example 20, the tonal difference is in the last syllable of the stem, in (i) it is marked low while in (ii) it is high. The marking of the tonal variations above is indicative of the crucial role played by tone in dictionaries and in tone languages generally.

Tone indication has been highly considered in almost every dictionary whether monolingual or translation dictionary. The kind of tonemes that are often marked in Nguni languages as register tone languages are high tone, low tone and some gliding tones such as falling tone which is regarded as the combination of high and low tone.

Doke (1958) makes a distinction between level tones and gliding tones: "When using a level tone one musical note is struck, and that pitch is maintained as long as the syllable lasts. With gliding tones the syllable commences on a certain musical note and glides to another before the end of the syllable". Subsequent to this explanation, there are three types of gliding tones marked in Zulu: rising tones, falling tones, and rising-falling tones. In the next section follows the analysis of how the different types of tones are marked in various Nguni dictionaries.

3.3.1.1　TONE MARKING SYSTEM

There is a consistent practice observed in the marking of tone in Nguni language dictionaries, the marking of tone on each and every headword in a dictionary. However,

the notational strategies really vary according to each dictionary type and to a large extent by the decisions taken to the lexicographers. Clark and Yallop (1995) echoed that there is no standard way in which tones are marked, either in conventional orthographies or in linguistic representations.

There exist two major tone-marking systems in Nguni dictionaries, (i) diacritic representation of tone and (ii) the numerical (figure) tone - marking system. Dictionary typologies under evaluation will be analysed against the two notational systems.

3. 3.1.2 DIACRITIC REPRESENTATION OF TONE

The marking of tone by means of accent marks or diacritics has been the most popular method in both linguistic and lexicographic representations of tone languages. This system has been employed in the majority of translation and monolingual dictionaries selected in this study, GDX, CSWAD, ACNKA.2 and SLNY. The manner in which tone is indicated in these dictionaries is the placement of diacritic marks on the headword in its orthographic form.

Although there are a number of agreed upon or standard conventions used to mark the various tones, the following practices prevail in the indication of tonal differences by means of diacritics:

> (i)   The indication of high, low and falling tone (H, L and F);
>
> (ii) The indication of high, falling and rising tone (H, F, R)
>
> (iii) The marking of only high and falling tone   (H and F)

The four dictionaries mentioned above are going to be evaluated according to the relevant categories tabulated above. The general principle followed in GDX is the marking of tone on each and every syllable of the headword.

Pahl et al (1989) describes the system used in the dictionary as follows:

> As tone is a vital morphological element of Xhosa, it is
> essential that the lexical tone, i.e. on a speech form in
> isolation or terminal be indicated for each entry. This

is done by means of three diacritic signs, namely the acute accent /'/ for the high tone, the grave accent for the low tone /ˋ/ and the circumflex /ˆ/ for the falling tone.

The diacritic symbols employed in *GDX* are the standard suprasegmental signs recommended by the IPA. The tonal differences that are indicated in the examples are high, low and falling tone. This means that GDX falls under category (a) and it is the only dictionary that has attempted full tone marking. This is illustrated by the example 21 (i) and (ii) where each mora of the syllable has a diacritic symbol that signifies the type of tone inherent in that particular syllable.

(21)   (i)   isirhofu : ísì·**rhófù** b/n   7/8   (glutton)

         (ii)   ukuqhotsa : úkù·**qhôtsà**   (to fry, toast)

         (iii)   ukuqhothoza *: uku·**qhóthòzà***   *(*be obtainable*)*

         (iv)   ukuthetha *: ukù·**théthà***   (to speak*)*

(GDX 1989)

In the *GDX* some syllables are left unmarked. In the two verbs in (iii) and (iv) there are no tone markings on the pre-prefix and the prefix. The unmarking of tone in the dictionary deviates from the general tendency of other Nguni dictionaries. The unmarked syllables indicate unspecified high or low tones. The authors saw it as the simplest way of indicating the dialectical variations between isiTshiwo and non-Tshiwo.

The marking of only high tone and falling tone is the practice prevailing in the CSWAD and SLNY. The common principle followed in these dictionaries seems to be the simplest method of marking tonal differences.

The diacritic symbols that are used to mark the two tones are an acute (´) that marks high tone and a circumflex (ˆ) that indicates a falling tone. The lexical items from the two dictionaries make an explicit illustration of how tonal differences are marked:

(22) CSWAD: (i) kutfulula: (kú) - **tfúlula v.t.**   (Empty, pour out)
              (ii) umbono: úm-**bôno /ími- n.**   (a vision, opinion).

(23) SLNY: (iii) imbuzi   **-mbûzi** (ízi-)   *bz*   (goat)

               (iv) memeza   **méméza**   *sz*   (shout)

               (v) udade   **-dáde** (ú-ó)   *bz*   (sister)

The illustrations above show the frequent marking of the two tonemes in CSWAD and SLNY. According to Nyembezi (1992) an acute accent above the relevant syllables suggests that (a) a syllable is pronounced in a high pitch and (b) at times the same diacritic mark indicates the rising tone that is influenced by depressor consonants such as /d, g, v, z, j /. The argument for the choice of the sign (´) to mark a rising tone on the first syllable of example 23 (v) is the fact that a syllable commences from a low tone and glides up to the high tone during pronunciation, so the finishing pitch height is recorded. The exploitation of the acute accent to indicate rising tones is the practice adopted in the entire dictionary and it is motivated:

> **Kulesi sichazamazwi sibone kulula, ikakhulu kulowo osalufundayo ulimi, ukuba kuthi uma ungagqamile umehlukwana lo sivele sisebenzise uphawu olulodwa okungathi noma elulandela ophimisa izwi kungashiwo ukuthi uyabhimba.**

(SNLY: 1992)

> In this dictionary we saw it simple to those learning the language, where there is no extreme distinction in tonemes we have chosen to utilize one symbol as long as it does not lead to mispronunciation.

From this argument it appears that the principle followed in marking of certain syllables is towards achieving simplicity and avoid sophisticated tonal sequences. Instead of showing a gliding tone, a symbol representing a high tone is considered simple and appropriate.

Besides the marking of only high tone and the falling tone, one other feature shared by the two dictionaries is the unmarking of certain syllables. This is also well demonstrated in all the examples above. The assumption is that unmarked syllables are intrinsically low. The unmarking of low syllables is becoming a standard norm in Nguni dictionaries.

A monolingual dictionary that has opted for a more complex tone-marking system is ACNKA.2. There are three tones indicated in this dictionary, that is, a high tone and two gliding tones, namely, the falling and the rising tones. In collaboration with other two dictionaries discussed in the previous paragraph, ACNKA.2 has also left all low syllables unmarked. A decision to mark a rising tone in a school dictionary like this one is too ambitious and complicated for the specified user.

The system followed in some Nguni dictionaries, the unmarking of low syllables may be misleading to the dictionary user, because to utter a complete tonal pattern requires a full marking of tone on each syllable.

The choice or criterion to unmark low syllables in these dictionaries is not explicitly stated. Nyembezi (1992) maintains that the decision to use only two symbols, an acute accent and a circumflex is found to be the most simplified and economical approach.

According to Bird (1990) a widespread practice in tone languages has been to omit one of the tone symbols so that a certain tone is simply represented by the absence of any mark. He further postulates criteria that often contribute to the omission of a tone symbol: (a) the symbol omitted could be for the most frequently occurring tone, (b) tones usually marked are those that change the least, unstable tones are left unmarked (c) a syllable is marked only when it is different from the tone of the immediately preceding syllable. In this system, a sequence of identical tones receives just one orthographic mark which is placed on the first syllable and the subsequent tones are unmarked.

In the Nguni dictionaries that have opted not to indicate low tone, it is not explicit whether the preference for a high tone is the frequency of low syllables in the languages or not. The policy may be suitable in a monolingual dictionary for native speakers, but a dictionary that is aimed at language learners should strive for a complete marking of tone in every syllable so that it is assured that each syllable as a pronunciation unit is reproduced accurately.

The marking of tone on the headword by means of diacritic symbols is generally regarded as economical. Marking tone separately is space consuming and cause reduplication of phonetic information that may not be significant to the user. However, the placement of

diacritic marks on the headword needs to be reviewed as it loses the orthographic shape of the word in dictionary entries.

The table below is a summary of how tonal distinctions have been marked in the four dictionaries utilizing the different diacritic symbols. The mark (-) means that a toneme is not indicated in that particular dictionary, whilst (0) indicates the low tone which is left unmarked.

TABLE 3

TONEMES	ACNKA2	GDX3	CSWAD	SNLY
High	/'/	/'/	/'/	/'/
Low	0	/ˋ/	0	0
Falling	/ˆ/	/ˆ/	/ˆ/	/ˆ/
Rising	/ˇ/	–	–	–

3.3.1.3. NUMERICAL REPRESENTATION OF TONE

A second tone marking system demonstrated by other Nguni dictionaries is the marking of tone by means of numbers or figures. The exploitation of numerical tone marking systems is the characteristic feature of isiZulu dictionaries, particularly those compiled by Doke, hence sometimes known as Dokean tone marking system. The system was first employed by Doke in 1926 in the linguistic description of Zulu. This tendency may be demonstrated further as follows:

(24)

    (i) **lwa** (imper.yilwa 6.3)   v.conj or tr .   (fight)

    (ii) **hlanza** (6.6-3) v.   (wash, clean)

    (iii) **-dada (i(li)dada**, 3.2.9.9, **amadada**) n.   (duck(s)

    (iv) **-gonsi (i(li)gonsi**, 2.4.3.9, **amadoda**) n. (species of shrubs)

    (v) **góvu** (8.8-9) ideo   (of glutton eating; whipping)

        (ZED, 1958.)

The numbers or figures that are used to mark tone are placed immediately after the lemma in round brackets. The tones recorded are those of the word when isolated or final in the sentence. The tone inherent in each syllable is clearly marked by a suitable number. ZED, just like GDX has deviated from the policy of leaving low syllables unmarked.

The figures used to mark tone in Doke (1958) and *ZEED* (1990) are regarded as relevant means to reflect the various pitch heights in isiZulu. Doke (1958) describes the nature of Zulu tones as:

> The Zulu speaker employs a nine-tone system, that is to say, his range of tones in speech covers nine different pitches. These nine tone points cannot be indicated in musical notation, for they depend upon relative and not absolute height. The intervals between the notes are the important things.

The figures 1 through 9 indicate relative pitch values, the highest being 1 and the lowest 9. The single numbers signify level tones such as low and high tones whereas the two figures joined by a hyphen indicate the end points of a contour tone. In *hlanza* above, a hyphen between 6-3 indicates a rising tone. The last syllable commences from a lower tone marked by 6 and ends up in a higher tone.

Although the Dokean system is regarded as the accurate means of showing contour tones, it appears to be very complicated and too scientific for an average user. It is not easy in the first place to locate the numbers to the relevant syllables, secondly the indication of pitch level by means of numbers is very difficult to comprehend. It is also taken into cognisance that the *ZED* is a general bilingual dictionary aimed at a wide range of users such as advanced learners of the language.

The system, therefore may be very suitable for that sophisticated user in order to understand the pitch heights of the syllables.

There is another reason that compelled the compilers to opt for such a complicated method. The choice and motivation of the figure tone marking system is neatly explained by Doke in *The Phonetics of Zulu Language* (1969):

...to indicate the nine tones, using diacritic marks either above or below the syllables concerned would, I fear, cause complications and confusions, as each syllable would have to be marked, and stress marks are already being used. This would be especially confusing with gliding tones, when it is necessary to indicate pitch of commencement and the pitch of finishing. It is for this reason that I have finally adopted the figure system for indicating tone, using the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9 to indicate the highest to the lowest tone.

The ideophones further demonstrates why numbers are preferred in marking tonal differences in ZED and EZZED. It should be noted that a grapheme /b/ is pronounced as /bh/ though it is orthographically represented as the implosive.

(25) (i) **béxe** (8:8-9) ideo. [>bexezela; imbexe, isibexe; imbexembexe] of heavy gait of a stout person.

(ii) **bóboboo** (3.4.5) ideo. [> i(li)boboni.] of the cry of the bush-shrike.

(iii) **fólokotho** (8.8.8-9.9) ideo. [> folokotha] of collapsing, falling

According to Doke the first syllable in the three examples is already marked with an acute accent /'/ indicating the stressed syllables of the ideophones, the diacritic mark therefore would not be suitable as it is supposed to be imposed on the same syllable.

The fear to use diacritic marks to show tone is justified because in (iii) a confusion would be created if an acute mark was used to indicate the high tone in the first syllable.

The Dokean tone marking system is not regarded as a user-friendly method in modern Nguni lexicography, particularly, amongst Zulu dictionaries, because some of the pitch heights are not really significant for an overall pronunciation of the word. A recent move is to mark three tone levels, high, low and falling tone, thus the relevance of the use of numbers may fall away in the new dictionaries.

3.3.1.4 INCONSISTENCIES AND DISCREPANCIES IN TONE INDICATION

There are inconsistencies and discrepancies observed in the tonal representation in dictionaries evaluated above. The problem stems from various reasons ranging from

typographical variations, methodological and largely from linguistic descriptions. The manner of tone representation is based on linguistic theories that were available during the compilation of these dictionaries. The inconsistencies displayed by individual dictionaries were already debated in the previous section, it also important to highlight some flaws discovered in the indication of tone in Nguni dictionaries generally.

There is irregular use of diacritic marks in the marking of tone. The use of one lexicographic convention to signify different information is one problem noticeable during the evaluation. It is generally known that various diacritic marks are attached to specific tones, but within one language, isiZulu there is no uniform use of diacritic marks. The acute accent /'/ is a standard sign to mark a high tone but the same mark in ZED and EZZED is used to show stress. A grave accent /`/ generally represents a low tone but it is used to indicate stress in ACNKA.2. The failure to conform to the international or standard conventions may create a lot of confusion amongst regular dictionary readers.

Besides inconsistencies in the exploitation of diacritic marks, Nguni dictionaries are characterized by a number of disagreements and discrepancies in the representation of tone according to tonal classes and tonal patterns of certain word categories. At least each headword in the selected dictionaries is consistently tone marked. The disagreements are outstanding in the major categories such as nouns and verbs. In both the diacritic and the numerical tone marking system, the verbal forms on which tone is indicated are the imperative and infinitive. Consider a comparative analysis how the tonal patterns of verb and noun stems are indicated.

TABLE 4

		SLNY	ACNKA.2
1.	uboya	-boyá (ú-) *bz*	-BOYA, úBOYA (bz)
2.	amagwegwe	-gwégwe (ámá-) *bz*	-GWEGWE, ámaGWĔGWE (bz)
3.	ukubuza	búzá *sz*	úkuBÚZA
4.	ukuphica	phiká *sz*	úkúPHIKA
5.	ukumba	mbá *sz*	úkúMBA
6.	ukuma	ma	ukuMÁ [-EL-; IS-]
			(See also Appendix F)

It should be observed that the first two examples are nouns and the others fall under the verbal category. The tonemes marked in these dictionaries are claimed to be the basic tones. The observation is that SLNY has lemmatised all verbs in the imperative form while ACNKA.2 has decided to enter them in the infinitive.

Some of the tonal differences occurring above are due to the two different practices employed in the lemmatisation of verbs. The tonal patterns of the verbal forms in the imperative differ slightly from those tone marked in the infinitive. For instance, the verb stem in example 6 is low toned according to SLNY while it is marked high in ACNKA.2.

In a linguistic analysis of isiZulu tonal issues, Poulos and Msimang (1998) categorise the verb under the high- toned monosyllabic stems. What is demonstrated here indicates that the possible tonal patterns of verbal categories may change owing to the verbal form on which they are marked. These discrepancies do not only occur in monosyllabic verbs, they are prevalent also in other verb categories as illustrated in example 3 and 4 above.

The disagreements in the nominals are shown in example 1 and 2 where tone is marked differently in the disyllabic nouns. The last syllable of the first noun is marked high in *SLNY*, whilst it is intrinsically marked low in *ACNKA.2*. It should be recalled that the reason to mark the first syllable high instead of a rising tone was already stated in 3.3.1.

In dictionaries, underlying tones of lexical items are successfully recorded when the word occur in isolation, because the tonal sequences may change when that word occurs in different environments. The neutralization of tonemes in the imperative form needs to be addressed so that at least the known tonal patterns of word categories are maintained in the language described. In order to give a uniform and accurate record of language, an integrated system of tone marking in Nguni dictionaries is needed, especially within one language.

The marking of tone is a general problem in tone languages. There are various theoretical views on tonal classes and the sequence to be followed in the tonal markings. It is important to mention that the linguistic information recorded in language dictionaries is the findings in the linguistic descriptions in place.

It is therefore deemed necessary in this study to have a look at some discrepancies between dictionaries and linguistic knowledge recorded in grammar books. Schadeberg (1981) also examined the representation of tone in Bantu languages, his findings will be demonstrated:

(26)

Doke 1926	ZED 1948	
pheka (5:4)	pheka 6.3	(to boil)
buza (3.9)	buza 3.9	(to ask)
phela 3.9; 3-8.9	phela 3.9	(to come to an end)

Roux (1995) identifies the causes of discrepancies and inconsistencies in some linguistic descriptions as inherent differences at dialectical level and sometimes personal inconsistencies during data collection. He further suggests that prosodic data should be verified by means other than impressionistic methods. It is true that even in lexical tonal marking the method used is impressionistic, tone may vary according to individual perception of the compiler. Schadeberg (1981) also challenges the lexicographers involved in the recording of tone languages when concluding the analysis of a few number of dictionaries in African languages:

> It is disappointing to note that time and again dictionaries were prepared and published without paying due attention to the known tonal structures of the language concerned. ...it is hoped that future editions of these dictionaries of Bantu languages will be more complete in their representation of tone. (Schadeberg 1981:179).

To sum up, tone indication as a disambiguating factor in any tone language needs a further attention in the compilation of new dictionaries. As demonstrated in the discussion, it is the essential information that should be accurately represented in both linguistic and lexicographic records.

To be fair some of the discrepancies are not very problematic as they are related to pedagogical considerations. But whatever decision should be clearly stated in the

introductory part of a dictionary to give proper guidance to the user in possession of the dictionary. It is sometimes discouraging to discover that there is no link between what is presented in the front matter and in the dictionary text.

3.4   STRESS INDICATION

The indication of stress in Nguni dictionaries is not a common practice. Stress is a suprasegmental feature of an utterance, and it applies to the whole syllable rather than on the individual segments. The stressedness of a vowel cannot be established without comparing the vowel with another segment in sequence. Stress is always indicated on the vowel of the CV syllable or on the syllabic consonant.

Generally, stress is used to distinguish between weak and heavy syllables. Heavy syllables with long vowels are described as stressed. This can be examined from the point of view of perception and production. Roach (1991) describes the distinction as follows:

> The production of stress is generally believed to depend
> on the speaker using more muscular energy than is used
> for unstressed syllables.   From the perceptual point of
> view, all stressed syllables have one characteristic in
> common, and that is prominence

Although there is a common understanding that some Nguni languages have stress in certain syllables. Its definition and representation remains a controversial issue. It should be pointed out that stress is not marked at all in Nguni orthography for practical reasons.

Westermann (1977) and Hyman (1992) are of the same view that the location of stress in tone languages is the penultimate syllable, that is, the second last syllable of a word. Hyman further refers to this kind of stress as the "superimposed penultimate stress". Because of its fixed position, stress in tone languages is completely predictable, non-contrastive and does not acquire a lexical function as it is the case in stress languages such as English and Afrikaans.

The Nguni dictionaries that have decided to mark stressed syllables are ZED, EZZED and ACNKA.2. Stress is only marked in certain word categories such as ideophones, interjectives and demonstratives. It is indicated either on the penultimate or ultimate syllable. Below is the comparative indication of stress in ideophones.

(27)

	AC NKA.2	ZED
(i)	**BHÀDLA**, BHÀDLA (szk)	**bádla** (8.8-9) ideo
(ii)	**CÉLEKESHE**, CÉLEKESHE (szk)	**célekeshe** (8.8-9.9) ideo
(iii)	**GÒLOKOQO**, GÒLOKOQO (szk)	**gólokoqo** (8.8-9.9) ideo

Stress is indicated on the antepenult syllable of each ideophone, that is the first syllable of both disyllabic and polysyllabic ideophones in the two Zulu dictionaries. Although the two dictionaries are typologically different, they are both designed for pedagogical purposes.

The two different symbols that are used to represent stress in the two dictionaries are a grave accent and the acute accent respectively. Doke (1981) maintains that there are two types of stress in isiZulu, namely, the main stress marked by the acute accent / ´ / and the secondary stress which is indicated by a grave accent / ` /. In ACNKA.2 stress is only indicated on the disyllabic and polysyllabic ideophones. The type of stress indicated in ACNKA. 2 is not clearly stated but it is assumed that he preferred to use a grave accent to mark the main stress in contrast with the mark used in ZED.

In ZED and EZZED the stress phenomenon has been handled extensively. The word categories that are marked with stress are ideophones, interjectives, demonstratives of the third position and adverbs. In the interjectives and the 3rd position demonstratives the stress mark is placed on the ultimate syllable of the word.

The examples representing the two word categories are cited:

(28)

(i)	laphayá	(3.3.2) adv. (3rd demons. positn)
(ii)	hhabé	(5.3-5) interj.
(iii)	lesiyá	(6.6.3) pron. 3rd demons. cl. 4 sg.

The compilers of the two dictionaries realize the kind of stress that is usually located at the penultimate syllable. The type of stress that is indicated in the above word categories is described by Doke (1964:x):

> Stress falls normally on the penultimate syllable of each word in Zulu and this normal stress is not therefore indicated. In the case of ideophones, which have initial stress on short syllable, and in the case of certain instances of word with stress on the ultimate syllable such abnormal stress is marked by an acute accent over the vowel concerned.

The kind of stress indicated according to Doke (1964) is what he calls 'extra-normal stress' phenomena and it falls on other syllables other than the penultimate syllable.

This is problematic because in view point of general principles of phonetics and phonology, the kind of stress level that is common in Nguni languages is the main stress that is usually located at the penultimate syllable. It is then predictable and does not need to be indicated either orthographically or lexicographically. The kind of a syllable that usually accommodates stress is a heavy syllable.

If accent marks are used to mark stress, an acute mark signifies the main stress and grave accent is used to mark secondary stress. The choice to use a grave / ´ / *accent* in ACNKA.2 is not quite clear, although in the introduction he explained that the symbol / `/ is used to mark stress. The type of stress indicated is not stated but it is assumed that he preferred to use a grave accent to mark the main stress in contradiction to the acute accent used in other Zulu dictionaries.

What is perceived, as the stress by the two lexicographers is a debatable matter. Doke claims that the reason for marking stress in the above ideophones is because he noticed a stress in shorter syllables. Poulos and Msimang (1998) in the linguistic description of Zulu ideophones argue that the first syllable of some ideophones and demonstratives is longer than other syllables. The syllables that are defined as short and stressed in Doke (1958) are actually described as long syllables in Poulos and Msimang (1998), consequently presented as follows:

(29)   bha : lakaxa   (of falling apart)

       qa : thatha   (of dropping)

It is therefore clear that there is a serious confusion between length and stress. In the point of view of phonetic-phonological studies stress is correlated to pitch, duration and loudness, and quality. Although stress has four correlates, pitch and duration are regarded as reliable cues of stress. In simple terms this means that stressed syllables are always long and they are produced on a higher pitch than unstressed syllables. The mentioned cues or correlates may be the cause of the problem of inaccurate identification of stress in certain word categories in Nguni dictionaries.

Sommerstein (1977) contends, "loudness itself is not the sole auditory component of what practical phoneticians call stress. Pitch and duration are relevant cues as well, indeed they are often found to be more important determining factors for perceptual stress discrimination than loudness is." In support of this view, Doke (1981: 26) contends that normal main stress in Zulu, which is more pronounced, is on the penultimate syllable of the word, and is usually accompanied by full length of the vowel or syllabic nasal on which it rests.

There seems to be an agreement in the pitch levels of the first syllable of ideophones in example (27) of the two dictionaries. All the syllables are basically low but the initial syllables are pronounced in a higher pitch than the neighbouring syllables. This position is clearly demonstrated in the numerical tone marking system, because the so-called stressed syllables are marked with a different pitch value, e.g badla (8. 8-9). It appears therefore that the only cue used by the two dictionaries to determine stress is loudness because Doke has clearly stated that the syllables marked with stress are short syllables.

Despite the problems stated above in those dictionaries that mark tone, the role of stress is described as a means to determine the pronunciation of syllables and at the same time it helps to distinguish certain word categories such as verbs and ideophones that are phonetically the same as in the two entries:

(30)   **báqa** (8.8-9) ideo   (falling flat)

       baqa   (6.3) v   (light up)

The use of different conventions in marking stress / ´ / in EZZED and / ` / in *ACNKA.2* calls for a uniform system, because at present the diacritic symbols are used to mark high tone and low tone in other Nguni dictionaries.

3.5   LENGTH

Length is also one of suprasegmental features that can assist in the overall pronunciation of lexical items. Length is also predictable in Nguni and each penultimate syllable is always long. There are cases where length does not fall on the penultimate syllable and becomes unpredictable, thus it is marked in order to make an accurate representation. For instance, in verbal extensions length will always shift to the second last syllable. The indication of length in each and every lexical item would lead to redundancy. Langacker (1972:296) also asserts that length is not a distinctive feature in tone languages and need not be marked in the phonological representation of lexical items.

Amongst dictionaries evaluated in this work, the two dictionaries that have indicated length are *ZED* and *EZZED*. The few dictionary entries below demonstrate how length is indicated in the two bilingual dictionaries.

> **(31)**   (i)   **leyá**   (6.3 phon.   leːjá) pron. 3rd demons.
>
> (ii)   **musa** (mɓuːsa, 6-3.9 pl.**musani**) defic. v.
>
> (iii)   **ehhee** (ɛɦɛ ::, 6.3-8) interj. of assent…
>
> (iv)   **a-** [aː] subj. concord. cl. 3 pl. + past aux. -a-
>
> (v)   **a** [ˀaː , 3-8] interj. of surprise [cf ha.] …

The marking of length is common amongst irregular word categories such as auxiliary verbs, interjectives and some demonstratives. There are two kinds of length that are marked in the entries, that is, full length and prolonged length. The IPA symbol to mark length has been used. The single colon [:] is used to show normal length and prolonged length is marked by doubling the colon [: :]. In order to represent duration fully a complete phonetic transcription of a word is given in square brackets and in round brackets.

The observations from the examples illustrate that length is not lexically significant in Nguni languages. In orthographical representations for instance, length is often represented by doubling the vowel on which it is located. In example (iii) above the

phonetic representation with a long open /e/ is redundant, as it is already doubled in its orthographical form.

3.6 CONCLUSION

It is important to state that some Nguni dictionaries have attempted to give a fair indication of the phonetic component, and others have given inadequate information. The table below is the comparative summary of how phonetic-phonological information is treated in general :

TABLE 5

	SLNY	GDX	ZED	EZZED	ACNKA.2	PNDED	CSED
Phonetic script	-	+	+	+	-	+	-
High tone	+	+	+	+	+	-	+
Low	0	+	+	+	0	-	0
Falling	+	+	+	+	+	-	-
Rising	-	-	+	+	+	-	-
Stress	-	-	+	+	+	-	-
Length	-	-	+	+	-	-	-

The treatment of phonetic - phonological information in general is less satisfactory. But it is important to commend the three dictionaries that have attempted to provide an exhaustive representation of both segmental and suprasegmental features, ZED, EZZED and GDX.

The two dictionaries represent a typology of translation dictionaries that are designed to be comprehensive linguistic tools, and it is evident from the diagram. They are also typically representing the pedagogical dictionaries with the extensive treatment of pronunciation in order to assist in the learning of the language.

In regard to the indication of suprasegmental features, tone is included in both general monolingual and translation dictionaries. The method commonly followed in most dictionaries is the simple method of indicating only basic tonal levels, e.g. high, low and falling tone by means of diacritic marks on the vowel of each syllable.

In cases where discrepancies occurred in the inclusion of phonetic–phonological information, important lexicographical principles have not been taken into consideration. A balance was not drawn between what is lexicographical relevant and at times the reference skills of the target users were not taken into consideration. One of the shortcomings in bilingual lexicography is the clear definition of the aims. Dictionaries like PNDED are claimed to be pedagogical but in essence they lack all the necessary pre-requisites of that type of a dictionary. It is hoped that this state of affairs will improve in future Nguni dictionaries and other African language dictionaries.

CHAPTER 4

PHONETIC-PHONOLOGICAL COMPONENT IN FUTURE DICTIONARIES OF AFRICAN LANGUAGES

4.0   INTRODUCTION

The aim of this chapter is to present certain guidelines that may assist in future improvement of phonetic information in dictionaries, that is, the existing dictionaries and the new dictionaries to be compiled in nine official languages of South Africa. The changes taken in the status of African languages is a big challenge to linguists and the lexicographers. The new attitudes in linguistic phenomena in South Africa calls for better dictionaries that will not only consider the needs of the speech communities, but will take cognisance of the lexicographic needs in the development of previously marginalized languages. The recommendations and guidelines to be discussed in this section will also help in the general treatment of information categories in future dictionaries.

4.1   LEXICOGRAPHIC SITUATION IN SOUTH AFRICA

In the evaluation of Nguni dictionaries in the previous chapter, it has been shown that there is an uneven occurrence of dictionaries. This is not only the case with Nguni language group, African languages in general are characterised by inadequate dictionary typologies.

Up to the present moment, dictionary compilation has focused on translation dictionaries, particularly bilingual dictionaries. The missionaries compiled the majority of translation dictionaries that were selected for analysis in this study in order to facilitate communication in African languages, thus serving the needs of the learners of these languages.

The linguistic needs were ignored, hence a lack of monolingual dictionaries aimed at language speakers. Gouws (1990) asserts that the majority of bilingual dictionaries with African languages do not reflect a very high standard of lexicographical achievement, for that reason they have been governed by utility principles rather than linguistic principles.

In the analysis of the user's needs, Mtintsilana and Alberts (1990: 101) state that each of the African languages is in need of the encyclopaedic type of dictionary. Skhosana (1998:5) when outlining the mission of the national lexicographic unit states, "It is the aim and the objective of a dictionary unit of IsiNdebele, to produce within a reasonable short space of time, a comprehensive, monolingual dictionary, that will benefit the mother-tongue speakers of isiNdebele and other South Africans who want to study this language". The arguments above indicate the envisaged improvement of lexicography in the African languages.

Looking at the needs of the speech communities of the South African languages, the lexicographic guidelines that are going to be dealt with in the next section will be concentrating on the treatment of phonetic information in future general dictionaries already evaluated in the study, namely monolingual and bilingual dictionaries. Secondly, other alternative treatment or indication of phonetic information in other dictionaries, especially electronic dictionaries will be dealt with as a solution to unsolved problems in the strategies of handling pronunciation information in both existing and future dictionaries.

4.2   FUNCTIONAL ROLE OF DICTIONARIES AND PRONUNCIATION

Dictionaries to be compiled have to be based on their functions in the speech community. A dictionary has a very significant role in developing languages and the content or information categories included should promote the process of developing the language described.

Crystal (1992:227) describes a dictionary as a reference book, which lists the words of one or more languages, usually in alphabetical order, along with information about their spelling, pronunciation, grammatical status, meaning, history and use.

The description given above does suit both a monolingual and a bilingual dictionary. With regard to the content both dictionaries share similarities, pronunciation, as a category should be indicated. The purpose of each dictionary will be discussed in view to the kind of phonetic information to be included.

4.2.1 A MONOLINGUAL DICTIONARY

The monolingual dictionaries that should be compiled for the African languages should take into consideration the state of the language and the needs of the society. By its nature, the main task of a comprehensive dictionary is collection not selection, it is designed to be a practically complete record of the national language. A monolingual description of a language should strive towards the record of the language's orthography, pronunciation, meaning, grammatical information, the origin of words etc. The various purposes to be fulfilled by such a dictionary make it impossible to exclude phonetic-phonological information.

According to Hausmann (1989:5) the social function of a dictionary depends (a) on the stage of development of a language (b) and on the political and cultural needs. It is imperative that future monolingual dictionaries have to be descriptive and comprehensive as possible, because it is in the interest of the national government that all the official national languages of South Africa should be developed. The Department of Arts, Culture, Science and Technology, through the Pan South African Language Board (Pansalb) has decided to give substance to the constitution of South Africa by setting up national lexicographic units (NLUs) for each of the official languages. The line function of the units will be to conserve, preserve, research and document the official languages concerned by compiling a monolingual explanatory dictionary and such other dictionaries as may be required to satisfy the needs of the target users of that language.

These monolingual dictionaries will also play a vital role in standardizing the language. The general monolingual dictionary therefore has to fulfill an important role in codifying the linguistic facts. Codification is a process that can be defined as:

> a systematic account of a language, especially of grammar and vocabulary. This task is often undertaken when a language is being written down for the first time, but it can also happen when a language is developing a standard form, or after a period of considerable creativity and change (Crystal, 1992)

The main purpose of codifying the language especially developing languages like African languages is to minimize the possible linguistic changes. Samuel Johnson as quoted by

Mitchell (1994), was afraid that the language would change beyond recognition and he saw a need for language dictionaries to codify and standardize the language. He felt that it is the responsibility of the lexicographer to record anomalies so that they are not perpetuated and reinforced.

The last role of a monolingual dictionary that is also important is its utilization as a teaching tool. Generally, a monolingual dictionary is designed for the native speakers, but it is commonly used by the young generation and by the users who have interest in learning the language. In the introduction to *Isichazamazwi Sanamuhla Nangomso* (1992) the author states the aim as:

> **"Izingane zamaZulu ezizalelwe zakhulela emadolobheni seziqalile ukuba nenkinga yokulahlekelwa wulimi lwakubo, kanti nakwabadala sekuyabonakala lokho. Ngeke usho ukuthi ngoba umuntu unesibongo somZulu ngakho-ke uyasazi isiZulu. Ngakho ke lo msebenzi uligalelo ekulondolozeni amagugu ethu".**
>
> "The Zulu children who grow up in the cities have begun to struggle with the language, even adults themselves have the same problem. The fact that a person has a surname in isiZulu does not imply the knowledge of the language. This dictionary therefore is a contribution towards preserving our culture".

The aim and role of the above dictionary is two-fold. It appears that the main aim is to preserve the language, isiZulu, so that it can be transferred to younger people and also be of assistance to those who want to learn the language of their forefathers. A typical monolingual dictionary of a national language can be utilized as a tool for effective communication.

The above view is also supported by Stein (1984:121) when she argues that the consultation of a dictionary represents a non-verbalised pedagogic discourse. She feels strongly that the dictionary user wants to obtain specific information on a variety of linguistic fields such as spelling, pronunciation, grammar and she expects the dictionary to supply him with that very information. The dictionary user is thus a learner and the dictionary the silent discourse partner or teacher.

In all the motivations stated above it is evident that phonetic-phonological information should be part of the description of the language. With a well-defined role and function of a dictionary, it is impossible to exclude pronunciation information. Pronunciation information can play a vital role in preserving the sounds of a language and also for the effective use of the language in general. The need to put on record pronunciation information in any general monolingual dictionary is emphasised by Gimson (1980):

> Nevertheless, despite the fact that pronunciation evidently does not have the most potent appeal for eventual English consumers, it seems inconceivable that any reference work which sets out to record the contemporary "etat de langue" of the lexicon can include meaning, spelling and etymology and omit the actual "living form" of the word.

The phrase "living form" refers, inter alia, to the phonetic or phonological form of a word. Whenever a decision is to be taken on the inclusion or exclusion of the phonetic-phonological form of the linguistic unit, the functional criteria of a dictionary should be considered.

4.2.2 THE TRANSLATION DICTIONARIES

Looking at the existing translation dictionaries, it is important for the lexicographers to strive for better bilingual dictionaries. Al-Kasimi (1977) proposes a new typology of bilingual dictionary based on several linguist's views. This is a big hope for the better treatment of phonological component in future bilingual dictionaries for African languages. In the development stage, South African lexicography has to design dictionaries that would facilitate communication in the multilingual speech society. Although the primary role of a bilingual dictionary is that of giving translation equivalents from one language, to another, it has other functions such as learning and communicative role. Any dictionary that is used as a pedagogical dictionary should be compiled on the principles that would achieve pedagogic and communicative competence.

The entry words in a dictionary for production should be of general productive nature, and their articles should provide the user with more information (Al-Kasimi 1977:26). The treatment of pronunciation in the productive dictionary is exhaustive compared to the

information supplied in a general monolingual dictionary. This is due to the pedagogic requirements.

To support this further, Geeraets (1984) contends that rather than a scientific treatise, a dictionary is a social entity meant to spread knowledge or to facilitate communication among the members of one or more linguistic community.

In order to speak a language successfully, linguistic competence is a prerequisite and the mastery of the speech sounds, grammar and the whole vocabulary are also necessary. The phonetic-phonological component forms one of the key components of a standard bilingual dictionary entry. The prospective user of a bilingual is very wide and this necessitates a dictionary to try and satisfy all the conceivable needs of that user. Typically, it is designed to promote the learning of each language described. Haas (1967:45) assumes that it would include all the information needed to instruct the user in the proper way to pronounce each word so as to be indictable from the pronunciation of a native speaker.

From the linguistic point of view, a translation dictionary is not only meant to supply translation, every word that is included in the dictionary should be considered as a total unit in relations to grammar, syntax, phonology-phonetics, semantics, etymology, etc. The information given about the word should not only be complete but it should be accurate. If a phonetic-phonological shape of a word is given a principle of simplicity and accuracy should rule.

In improving the bilingual lexicography, South African lexicographers should develop a new approach and start planning dictionaries that would help users not only in comprehension but assist in production of the language as well. In order to give accurate information, a dictionary that is aimed at encoding the language has an obligation of providing detailed guidance on the phonological and phonetic system of the language.

The detailed guidance on the other hand should consider the information that would help the learner in proper use of the selected speech sound. For encoding, the users need to know the spelling, pronunciation and syllabification of lexical items.

The nature of a dictionary entry for communication is representative and exhaustive with a variety of information categories. The phonetic component in such a dictionary belongs to the so-called "key components".

In the comparative study of monolingual and bilingual dictionaries for communicative purposes, Atkins (1985) suggests that a dictionary entry of such a dictionary will consists of some or all of the following components in something like the following order:

1)   the headword, and any variant spelling;

2)   an indication of pronunciation;

3)   details of the word classes (parts of speech) to which the headword belongs;

4)   morphology: inflection which causes difficulties

5)   syntax: the syntactic potential of the headword and any syntactic restrictions it may carry;

6)   an explanation of various senses of the headword;

7)   an explanation of usage, including collocating words and fixed or semi-fixed words (e.g. idioms);

8)   a listing of derived forms of the headword, with or without further explanation;

9)   cross-references to related entries.

<div style="text-align:center">(Atkins 1985:16)</div>

Although 13 components are listed, the first nine components are classified as linguistic information categories that are common in a dictionary. According to Atkins the components no. 2, 3, and 9 show no systematic variation between mono- and bilingual dictionaries.

The arrangement of entry components is a standard one, but there may be variation according to different dictionaries. The order is understood to be of lexicographical significance.

For instance before a dictionary user should know the semantic content of a word, the form and the shape of a lexical unit is a point of departure, that is, the spelling and the phonetic transcription. After its orthographic representation, the phonetic-phonological

component will follow if it is to be included in a dictionary. The proposed dictionary entry is applicable to both mono- and bilingual dictionaries.

During the assessment of Nguni dictionaries, the two translation dictionaries that attempted the approach are *GDX3* and *ZED,* their entries are very near to what is proposed to be an ideal standard entry for communication dictionaries. Future dictionaries should improve on what is started by the authors of the two dictionaries. In any future innovations of pronunciation information, existing dictionaries should be used for better insight of what is deficient and what is commendable.

4.3   LINGUISTIC RESEARCH AND LEXICOGRAPHIC THEORY

The discrepancies that occur in African languages dictionaries stem from the gap that existed between linguistic theories and lexicographical principles. The future compilation of new dictionaries will therefore require the correlation between the two disciplines. Many lexicographers have made suggestions to consolidate linguistics and lexicography in order to improve the compilation of dictionaries. Prinsloo (1998) contends that important lexicographic principles have often not been considered, not to mention harmonised into a delicate balance.

Lexicography is often described as a scientific practice. Svensén (1993) describes lexicography as a branch of applied linguistics. Applied linguistics means that the information contained in a dictionary is due to the application of various domains of linguistics. The inclusion of pronunciation in a dictionary, for instance requires a thorough investigation of both phonetics and phonological studies of the language. A careful consideration of the relevance of that information in a specific dictionary will need appropriate lexicographic principles.

The manner in which tone is represented in Nguni lexicography needs to be improved in future dictionaries, and this will only be achieved when linguistic research is refined and harmonised with the theory of lexicography. Gouws (1999:274) supports the view, "although linguistic theories influence the lexicographic practice, these theories are not primarily aimed at lexicography".

In the case of pronunciation, there are varying views whether it is needed in a dictionary or not. What is important is to look at its lexicographical relevance first and the representation would be based on sound linguistic background. For any dictionary to be regarded as authoritative, linguistic information should be accurately represented.

Gleason (1967) put emphasis on the descriptive task of a dictionary when quoting Bloomfield, "the description of a language begins with phonology". When the phonological system of a language has been established, there remains the task of describing the semantics attached to the several phonetic forms. South African lexicographers dealing with the compilation of dictionaries in African languages are challenged to be involved in both lexicographical linguistic research in selecting and representing dictionary data.

Geeraerts (1984:55) is also concerned about the balance between linguistics and lexicography as he argues:

> For each of the macro and micro-structural choices with regard to the
> selection and the representation of dictionary data, theoretical
> lexicography will have to specify how these choices can be rationally
> justified on the bases of linguistic theories...

In respect to the inclusion, selection and representation of phonetic-phonological information in future dictionaries linguistic research is crucial and its practicality in dictionaries will be useful for both the dictionary user and the lexicographer. If for instance, the marking of length is not lexicographical significant in a Xhosa dictionary, its representation will be irrelevant and space consuming. The treatment of pronunciation as a microstructural unit needs thorough lexicographic planning. A better understanding of pronunciation information does not only need research in phonetics and phonology, its lexicographic role with regard to the wide variety of users is a great necessity.

4.4 GUIDELINES ON THE INDICATION OF PHONETIC-PHONOLOGICAL INFORMATION IN FUTURE DICTIONARIES

The aim of this sub-section is to look at various options that can be followed in improving and harmonising the indication of pronunciation in general dictionaries within one

language, language groups and language families. Model entries will be cited from other languages as well, with specific reference to African languages.

4.4.1 The Selection of Phonetic Information

The compilation of a dictionary does not begin with the writing of entries; it is preceded by a great deal of lexicographic planning. Landau (1984) classifies dictionary-making process into three stages, namely, the planning, writing and the production stage. During the planning stage, fundamental decisions are taken on what to include in the dictionary and strategies on how to present that information are explicitly described in a style manual.

The kind of pronunciation information that is going to be indicated in languages which have phonetic spelling need to be selected at the very beginning, considering the function of the dictionary and its prospective users. It is self-evident that phonological information is less needed in phonetic spelt languages such as Nguni languages, but there are exceptions and anomalies that exist. Loanwords, for example, may not always be phonetically spelt and phonetic transcription may be needed. It is imperative for the lexicographers to make a good selection of phonetic information that will be effective in Nguni dictionaries.

If a decision is to include phonetic-phonological information, a description of various types of information to be included should be described. A style manual must explain how that information is to appear in a dictionary, that is, its location and typography. The way to present any phonetic-phonological information requires a good choice of the phonetic system to be used and other lexicographic conventions.

In support of the above argument, Gouws (1999:275) maintains that the planning of the compilation of a dictionary starts with the planning of the system to be utilised in the specific dictionary as well as data distribution structure that determines the position and the presentation of different data categories.

A well-defined system on the treatment of phonetic-phonological information can contribute towards eliminating inconsistencies and also enhance a coherent treatment of linguistic information in a specific dictionary. It is surprising sometimes to find that the information presented in the body of the dictionary is not explained in the introductory part

of the dictionary. This practice results in a number of discrepancies that would affect the credibility and the authentic role of a dictionary.

4. 4. 2 Pronunciation in the front matter

A systematic and exhaustive style manual is always mirrored in the front matter of any good dictionary. The front matter constitutes one of the structural components of the dictionary. Hausmann (1989) divides a dictionary into three structural components, (i) the front matter, (ii) the central list and (iii) the back matter. The front matter always precedes the main dictionary text and is composed of various texts such as the title page, preface, background history about the dictionary, list of abbreviations etc. One of the obligatory texts that is usually included in the preliminary part is the guide to the dictionary or the user's guide. The guide gives an explanation of how different types of information categories are handled in the entire dictionary.

It is therefore, proposed that pronunciation information should be indicated in a key to pronunciation and the guide to pronunciation respectively. When a phonetic system is clearly defined in these two sections, its consistent application is guaranteed. It is appropriate in this work to give the direction on how the phonetic – phonological component should be handled in both the key and the guide to pronunciation regardless of whether the language is phonetically spelt or not.

4.4.2.1 Key to pronunciation

A key to pronunciation is a table used to represent the speech sounds (vowels and consonants) and the corresponding common words containing those speech sounds. In the key words the affected sound should be clearly differentiated from other sounds by means of a carefully selected typeface. In order to be user-friendly the speech sounds should be presented in the alphabetic order.

Kempt (1967) asserts that the front matter should include a systematic presentation of the phonemes of each language, and under each phoneme its chief allophonic types should be described with phonetic precision. The feature described by Malone is characteristic of a dictionary with more than one language. It should be emphasized that in any translation dictionary, a comparative study of the two languages is a prerequisite before the actual

presentation; this would assist in knowing what is contrastive in the languages for a brief phonological presentation in the front matter.

In an English-Zulu Dictionary (1958) what is described above is illustrated as follows in a key to pronunciation:

(32)	Phonetic Symbol	English Keyword	Zulu Equivalent
	a:	b*a*r	ub*a*ba
	u:	f*oo*d	th*u*la
	i:	s*ee*	f*i*ka
	dʒ	ju*dg*e	*j*abha
	h	*h*and	*h*amba

<div align="right">(see Appendix G(b))</div>

The table is showing what is expected of a key to pronunciation. For practical considerations, a phonetic symbol is given with example words from each of the languages. For accurate reproduction of sounds, the affected phonemes are written in italics. A dictionary user who is interested in the two languages is guided at the very beginning before even consulting the dictionary entries. It is the task of the bilingual dictionary to bring out the correspondences between the spelling systems and the phonemes of the language.

4.4.2.2 Guide to pronunciation

Besides a key to pronunciation, a dictionary should have a section that describes the phonetic system of the language which is normally called, "guide to pronunciation". A guide to pronunciation is different to the key to pronunciation. What it does is to explain the phonetic-phonological system of the language, describing the kind of transcription to be used in the dictionary together with conventions related to that information.

This area needs much attention in African languages. For instance in *ZED*, a transcription used is enclosed in round brackets. In the front matter there is nothing that explains the notation system employed, the only thing that tells the user is the abbreviation phon. which is referred to "phonetic", but that is also not enough as one is not clear whether it is a

broad or a narrow phonetic transcription that is used. The guide should be brief but at least include all the essential information on pronunciation.

In the *Woordeboek van die Afrikaanse Taal Vol. IX*, the notation system followed in the central list of the dictionary is described in the front matter in a separate section:

(33)

> 4.6 <u>Uitspraakaanduiding</u>
>
> Uitspraakaanduing word tussen vierkantige hakies aangebied onmiddellik ná alle lemmas, met uitsondering van afkortings wat nie in die afgekorte vorm uitgespreek word nie, en gemerkte lemmas... Uitspraak word deur middel van fonetiese tekens aangedui (vergelyk die uitspraaksleutel onder paragraaf (a)).
>
> (*WAT IX: xi*)

After the description of the notation system with few examples, *WAT IX* has also provided a user with a simple and straightforward key to pronunciation with phonemes, and examples of words in both their spelling form and a phonetic transcription. A monolingual dictionary such as the above one is a model that can be used by any national language dictionary committed to put on record its phonetic and phonological history for current use and even for the future reference. For a better presentation of phonological information, a consistent transcription of lexical units from the front matter would assist the dictionary user to easily access the required information.

In summing up, the components of the front matter should be well planned for the complete treatment of phonetic information. A front matter of a good dictionary should thus have the following components as suggested by Al-Kasimi (1977:109); (a) systematic presentation of the phonemes of the language (b) a pronunciation guide illustrating the transcription adopted in the dictionary and (c) a key to the pronunciation citing two or three familiar words as examples to each symbol.

It is therefore advisable that even in languages where there is close correlation between the graphemes and phonemes, a phonetic-phonological description in the front matter would play a very significant role in informing the dictionary user about the complete and

accurate sound system of that language. The alphabetic inventory of the speech sounds with their phonetic descriptions should give its users a glimpse of a full linguistic description.

Besides the system to be followed, the type of information to be presented in the body of the dictionary should be explained and how it is going to be presented. If for example, stress is to be presented, that should be fully described, the kind of stress and the lexicographic conventions that are going to be utilized.

Because of nature of African language's orthography, the type of phonetic-phonological information that is lexically relevant is limited. In view of the role of dictionaries, new speech sounds, cumbersome words and deviant speech sounds, such as click sounds and syllabic consonants should receive more special treatment. But it is worth saying that in a bilingual dictionary the type of information will be determined by the two languages involved, a contrastive study will tell, for in stance whether the vowel segments are lexically relevant in a dictionary which involves a Nguni and Sotho language group dictionary.

In the following section the way to represent pronunciation in a dictionary entry will be discussed. The guidelines assume that phonetic information is going to be included in certain dictionaries, therefore the guidelines will be applicable to both monolingual and bilingual or translation dictionaries.

4. 5   Representing segmental phonemes in the microstructure

The representation of segmental phonemes needs better treatment in dictionaries for African languages. Whereas most lexical units are pronounced as they are spelt, there are exceptions to this general principle. Lexicographers, therefore have the obligation to analyse the phonemic structure of the languages, and in cases where the dictionary user is likely to commit errors, a lexicographical guidance is a necessity. In support of this view Mdee (1983) argues that the argument against providing phonological information in the dictionary of a language where there is a one-to-one correlation between the written form and the spoken form cannot be defended in Kiswahili as it fails to take account of supraphonemic facts which cause different realization, of homographs.

It should be emphasized that there is a great need of a better treatment of all consonants and vowels that deviate from the general principle of one-to-one item between spelling and pronunciation. Such consonants should be clearly distinguished from others so as to avoid ambiguous reproduction of speech by both foreign users and native speakers.

4.5.1   Syllabicity

The marking of syllabicity in consonants is not common amongst dictionaries written in African languages. A pioneering attempt has been noticed in the *Greater Dictionary of Xhosa*. It is the policy of GDX to make a distinction between syllabic consonants and nasalized plosives. A failure to do so would make it difficult for the foreign learner to reproduce such sounds unambiguously. The marking of syllables is also necessary in dictionaries that have entered headwords according to stems.

In siSwahili, phonemic transcription is used to indicate syllabic consonants. The method recommended by Mdee (1983) to distinguish homographs is as follows:

(34)   (i) mboga /mb-/ ...   (vegetables)]
      (ii) mboga /m·b-/ ... (boga – edible gourd)

The phoneme /mb/ in the above examples looks like a consonant cluster in its orthographic form but pronounced as two different sounds, that is a bilabial consonant and an implosive /ɓ/. This is to show that syllabicity is also marked in other dictionaries of African languages. A similar approach is proposed for the Nguni languages especially those that lemmatise the stem of the lexical item.

There are two methods that are recommended in Nguni languages. The marking of syllabic consonants should be positioned after the headword either by phonetic transcription or by means of a sign or symbol. In isiXhosa for example there is a small number of consonant clusters that can create mispronunciation of certain lexical items if syllabicity is not clearly differentiated.

The table below indicates how phonetic transcription has differentiated syllabic consonants from other similar consonants:

TABLE 6

Syllabic Consonants	Consonant Clusters
1.- *m*famlibe [mfamlibɛ] (long ago)	- *m*fakamfaka [ŋɸf''ak'aŋɸf''ak'a] (faint)
2. - *m*balwa [mɓalwa] (few)	- *m*bala [mbala] (only one)
3. – *m*filiba [mfiliɓa] (dim)	- *m*fikimfiki [ŋɸf'ik'iŋɸfik'l] (indistinct)

The orthography does not tell us the different utterances of the phonemes in the right column and those in the left. In a dictionary that has chosen partial phonetic transcription the two words can also be transcribed as follows:

(35)

>   1.   - mfamlibe   [mf]
>   2.   - mfakamfaka [ŋɸf']

Another alternative approach may be the utilization of a lexicographic symbol. It is a common practice among the users of IPA to use a lowered or subscript vertical line below the syllabic /ˌ/ consonants. A centred bullet is another sign that can be used to mark syllabicity, see example (34) above.

Syllabicity as a phonological feature must be indicated in cases where confusion in pronunciation could arise. It can be marked in monolingual dictionaries as well as dictionaries aimed at the learners. Any symbol may be used to distinguish syllabic consonants in various dictionaries of different languages but the choice will be governed by practicality and intelligibility of the symbol chosen.

The two conventions that are recommended to represent syllabic consonants have specific meanings. A subscript vertical line warns the dictionary user that the consonant is syllabic. The centred bullet is always inserted between the two syllables showing that the phoneme is a syllable in its own right (·). This information assists the user to have a break after the first syllable has been pronounced.

4.5.2 Other Segmental Phonemes

A general approach in transcribing segments when there is a need is partial transcription. There are sounds in every language that need to be recorded in language dictionaries, especially pedagogical dictionaries, those whose pronunciation is not inferred from their spelling. For practical reasons and lexicographic convenience the general practice that is adopted in existing dictionaries is still fine. The phoneme that is unpredictable should be the only part to be transcribed.

As already claimed that the orthography of languages like isiZulu are soundly based on phonetic principles and has few anomalies Doke (1964). Where these occur, special reference has had to be made in the dictionary. What is stated clearly shows that there are shortcomings and failures in the writing system. Those "few anomalies" should be transcribed in any language that shares the same problem. What is not represented in practical orthography should be recorded in a dictionary, for instance sounds that are ejective in Nguni languages are articulated as aspirated in English.

The following example entries demonstrate how this can be presented in a dictionary entry. Appendices A and E are good examples of the practice followed in Zulu and Xhosa dictionaries.

(36)

    IsiXhosa: (a) uku.**tshakádùlá** [tʃʰ, tʃ'] nz/v (dlul/perf – tshàkádùlè,

              - tshàkádule; nzl/ap ukutshakadúlêlà, nzs/caus ukutshakadúlisa,

              nzw/pass ukutshakádùlwá)

              1. ukutsiba-tsiba, ukhaba-khaba okomntwana; ukugqakadula:

              2. ukugabadula, ukuphala kakuhle, okwehashe:

    IsiZulu: (b) **keketsheka** [tʃ'] v. [>perf. – keketshekile, ap

              Keketshekela;caus *keketshekisa*

              Prance about on a horse

                                    (see Appendix E)

For the purposes of this study the suggestions only concern the information in brackets. The two entries may happen to be lemmatised amongst other lemmas that are identical orthographically but differ in pronunciation. The role of the lexicographer is to give proper

guidance by reminding the user on how to articulate a certain part of the headword as it is the case with the above examples. It is important for the lexicographer to try by all means not to lead the user to the error.

With regard to vowel segments, there are less problems about the spelling and pronunciation. But as stated earlier on, there are decisions to be taken after the analysis of languages. In Nguni languages vowels can be described in the front matter and at the commencement of each letter in the dictionary text. Transcribing them at the point of the entry would provide the user with superfluous information. The vowel segments in the Sotho languages tend to differ radically from their orthographic form. In a bilingual dictionary that will involve, for instance Sotho and any of the Nguni languages, phonetic information would be useful and significant to enable the user to articulate them correctly. This argument can be better shown:

(37)

1.	motho	[mʊthʊ]	(person)
2.	seme	[simi]	(whip)
3.	tsêbe	[ts'ɛbɛ]	(ear)

The diacritic marks on the vowel segments in orthography do not exactly tell the accurate pronunciation. A guide by means of a phonetic script as indicated above is intelligible.

4.5.3 VARIANT PRONUNCIATION

The indication of variant pronunciation is also essential because it gives alternative ways of saying words.   Although a monolingual dictionary tend to be normative, thus concentrating on what is a norm, a good dictionary should not restrict the user to one kind of pronunciation.   One recommended or common alternative pronunciation would be welcome. Fortunately, some of current dictionaries have attempted to address the matter, although there are inconsistencies in the presentation.

In future dictionaries a uniform or the standard approach need to be adopted considering simplicity and space-saving. The different approaches to indicate variants were already demonstrated in the previous chapters, but the use of a punctuation mark is

recommended. The alternative pronunciation of the phonemes /h/ and /kl/ in isiZulu should be phonetically represented:

(38). IsiZulu: 1. **h**   [h, x]

2   **kl** [kx', kɬ]

The standard pronunciation should be placed at the left hand side of the punctuation mark and the alternative one should be on the left. The phonetic representation allows the reader to pronounce /h/ either as the voiceless glottalic fricative [h] or voiceless velaric fricative [x].

4.6   THE CHOICE OF A NOTATION SYSTEM

The choice a of notation system has elementary requirements and it forms part of dictionary planning. The type of notation system, particularly for segmental phonemes that is proposed in African Languages is the phonetic transcription. The type of phonetic transcription that is best suitable for the representation of phonetically spelt languages like Nguni languages is the narrow phonetic transcription. Its advantage is the effective indication of the finer details of pronunciation features and allophonic differences.

Landau (1984) asserts that a phonetic system that would represent the sounds exactly is needed. He further motivates that a system based on the manner of articulation can be used to produce the sounds of any language, even a language with which one is entirely unfamiliar. As far as African languages are concerned, the choice of IPA symbols may be the best especially in the microstructural level. Full phonetic transcription is not a preferred method amongst African languages and partial transcription may still serve the purpose provided that all transcriptions are using IPA characters. The choice of IPA symbols will not only provide the user with exact information but accuracy and adequacy will be ensured. Partial transcription is regarded as the most economical and didactically effective notation system.

There are varying views on the type of transcription to be used in dictionaries. Some lexicographers prefer to put IPA symbols in phonemic transcription. In my viewpoint phonemic transcription may not be effective in partial transcription of phonetic-spelt languages. A general principle that is recommended in future Nguni dictionaries is broad

or narrow phonetic transcription. Phonetic transcription is usually enclosed in square brackets as demonstrated in many examples in this work. Any information that is set off by diagonal or slanted lines means that the IPA symbols are transcribed according to phonemic principles.

The use of any respelling method is not recommended for the transcription of Nguni languages or any other African language. For those who are threatened by phonetic symbols this method may be simple but it fails to indicate the articulation of peculiar sounds such as implosives and clicks, in those cases a lexicographer has to go out of his way and resort to the phonetic description (for further information compare Appendix G(a) and G(b).

The advantage of using IPA is that the characters are widely used and they are internationally recognised. The use of IPA characters would not hamper the effective learning of any language especially in the South African context because of their precision and accuracy.

Abercrombie (1978) rounds off by stating that whatever method of indicating pronunciation is adopted, it should be consistently and correctly used in the body of the text, and that the pronunciations themselves should be plausible. To achieve such plausibility, good sources on phonetic-phonological studies or theories should be wisely selected and verified.

If information on pronunciation is going to be part of the microstructural component of a dictionary, an advice from a phonetician should be received at the very beginning of the project. Furthermore, the notation system to represent the speech sounds effectively should be chosen on the following principles (a) a choice of phonetic symbols that would represent information accurately, (b) a minimum number of pronunciation features that need to be emphasised for the benefit of the learning user, and (c) a phonetic system that is simple and economical. Any linguistic information that is not based on contemporary research is hampering the authoritative role of the dictionary.

4.7   PRESENTATION OF SUPRA-SEGMENTAL FEATURES

The treatment of supra-segmental features have received fair attention in both bilingual and monolingual dictionaries. With regard to the presentation there are really few problems with regard to the notational system employed in various dictionaries. What is really lacking is the type of information to be presented. As discussed in the previous chapter, there seems to be different interpretations on stress and its position on the lexical unit. If stress is phonemic there should be further research on what is included in the dictionary.

4.7.1   TONE-MARKING

In respect to tone, the form of pronunciation that is usually given is the one used when the word is uttered in isolation. In the African languages, particularly Nguni languages, a firm decision has to be taken on the mode of formal indication in verbal forms. There are two possibilities of indicating tone on verbal forms, the distinction of tone pattern in the imperative mood and the infinitive. Whatever choice is made a detailed discussion should be given in the introductory part of the dictionary. If tonemes are only marked on the infinitive, that should be consistent throughout the dictionary, the indication of tone in both the infinitive and the imperative mood in the same text would cause confusion to the dictionary user. The marking of tone on the infinitive seems to be the popular approach in the majority of dictionaries, subsequently it is also recommended in this work. There are two methods recommended in marking tone, (i) indicating tone on the headword and (ii) marking tone separately from the headword.

4.7.2   MARKING OF TONE ON THE HEADWORD

The marking of tone on the headword using diacritic marks seem to be the general system preferred in tone languages. When tone is indicated on the headword, that should be marked on each mora of the syllable, and this method is known as full tone marking. The absence of an accent or diacritic may cause uncertainty and should be avoided particularly in a dictionary designed for the learners.   Looking at the example, the user would find it very easy to pronounce words according to their correct tonal sequences. Each syllable is characterised by its distinctive tone.

(39)

Orthographic information	Full tone-marking
1. indoda	**índòdà**
2. ukuhamba	úkù**hàmbá**
3. ukuthethelela	úkú**théthélèlà**
4. ukusola	úkú**sòlà**
5. ukuza	ùkú**zà**

The examples demonstrate how tone is marked on the headword in the infinitive mood. However, the system can be followed in both traditions of lemmatisation, that is, the stem and the word tradition. In register tone languages such as Nguni languages the tonemes that can be marked in dictionaries are the two level tones, High and Low tone and one gliding tone, Falling tone.

In order to achieve uniformity and consistent use of diacritic marks, the following IPA suprasegmetals should be used to indicate:

High tone   =   [´]

Falling tone =   [^]

Low tone   =   [`]

In the dictionary entry the stems of a word is always in bold print. Whenever tone is indicated on the headword, tonemes when marked on the prefix should appear in roman type, whilst on the stem it should be in bold type as illustrated in the example above.

4.7.3 TONE INDICATED SEPARATELY FROM THE HEADWORD

Tone may also be indicated separately from the headword. This approach is the best option that needs to be look at in African languages. The indication of tone separately from the headword can be done in two ways, by using diacritic marks or letters representing tonemes. The information should be enclosed in brackets for clarity and distinctions from

other kinds of information. Let us see how the two methods may be employed in tone marking of word categories, verbs, nouns and ideophones:-

Example (40) demonstrates how tone can be marked separately from the headword using the IPA diacritic marks, whilst (41) illustrates the marking of tone by means of letters.

(40)	(i)	**bambisa**	(bámbísà) *sz*	(cause to be arrested)
	(ii)	**-gwele**	(î,(ili)gwêlè) *bz*	(intoxicating drink)
	(iii)	**gwaza**	(gwázà) *sz*	(stab)
	(iv)	**-ntu**	(úmúntu) *bz*	(person)

The above example proposes how tone can be indicated separately from the headword using IPA diacritic marks. The headwords are lemmatised according to the stem of the word. Tonal information follows after the lemma with diacritic marks over each syllable.

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(41)	WORD INFORMATION		TONAL MARKING

	1.	**intaba**	(mountain)	(HLL)
	2.	**umuntu**	(a person)	(LHL)
	3.	**ukubona**	(to see)	(HLHL)
	4.	**ukuphefumula**	(to breathe)	(LLLHLL)
	5.	**ukuwa**	(to fall)	(LHL)

Example (41) demonstrates how tone may be marked by means of letters representing tonemes. Conventionally the capital H stands for high tone, L represents low tone, while F stands for a gliding tone. A relevant letter as demonstrated above should represent each and every syllable.

As already stated, this method is highly recommended in this study because it distinctly separates the orthographic shape of the word from the phonological form. In practice the marking of tone on the headword is not user-friendly because it changes the natural shape of the word. The writing system do not indicate the position of tone, it is advisable to represent the word as it is the macrostructure then extra information be placed after the headword, that is, at the microstructural level. Such a representation makes the

information easily retrievable because the headword is bold and the information on tone is in normal print and is enclosed in round brackets, remember phonetic information is placed within square brackets. One would argue that the method is time-consuming and uneconomical but on the other hand user-friendliness should not be compromised with economy of space and time. One other fact is that the system is best suitable for the dictionaries aimed at the learners.

The indication of tone separately from the headword may be effective even in other languages such as seSotho. The orthography in these languages is already marked with diacritics, tonal marks would therefore clash with the orthographical marks. This would be confusing to the dictionary user.

The indication of tone on the headword and the separate indication of tone have disadvantages and advantages. The marking of tone on the headwords is popular amongst African languages because it is regarded as the most economical method. When one looks at the type of the dictionary and the intended user, tone marks at the lemma level are mystifying both to the mother- tongue speakers and the second- language users.

It is observed that tone indication cannot be used alone for a complete representation of phonetic- phonological information. Segmental phonemes are also indicated by means of phonetic transcription. There should also be a strategy to be devised to solve the placing or positioning of tonal information in a case where phonetic information is placed after the headword. A general principle is that phonetic transcription follows immediately after the lemma. In tone languages additional information on tone is also placed after the headword. In the interest of user-friendliness and space-saving a consistent method should be thoroughly employed.

4.7.4 MARKING OF STRESS

If stress is regarded as a phonemic pronunciation feature of certain word categories such as idiophones and interjectives, it should be marked with a distinctive suprasegmental symbol. In current dictionaries it is noticed that an acute or grave accent is used in some dictionaries to mark stress. In the phonetic chart in Appendix A, there is paragraph on diacritic marks and IPA suprasegmental symbols, the choice of the superscript

suprasegmental (') and (,) subscript vertical symbol can be effectively used to mark primary and secondary stress.

According to the principles of IPA, a suprasegmental is placed before the syllable in question. The primary stress can be marked as follows:-

(42)   IsiZulu ideophones with stress marks.

      1. **bhaqa**   ('bháqá)   (of falling flat)

      2. **qhathatha**   ('qáthàthà) (of falling deliberately)

      3. **cwaka**   ('cwàkà)   (of quietness, calm)

Fortunately, the only stress that may need to be shown is the primary stress, and a mark before the two first syllables is warning the user that the syllable is pronounced with more prominence as contrasted to other syllables in the same environment. The kind of information may help the user to use greater energy in uttering the two syllables. It should also be remembered that any symbol which is the modification of the IPA may be used, provided that it is not easily confused with other suprasegmentals as is the case presently with acute accent which is usually associated with high tone. The choice of suprasegmentals should be investigated before it is put down as a policy. It should be recalled that the marking of stress is necessary only when:

➤ its position cannot be predicted from practical orthography;

➤ it is phonemic and contrastive in a language.

The phonetic symbols used to mark stress should be visible and distinct.

4.8 PRONUNCIATION INFORMATION IN ELECTRONIC DICTIONARIES

With the advancement of technology, African languages are in a big challenge of utilising computers in compiling dictionaries, especially for language learning. In the study and evaluation of current dictionaries the discrepancies and inadequacies may be solved by extending lexicographic research to computer lexicography. One of the most important features of electronic dictionaries is the fascinating treatment of phonetic information.

In all the various typologies of electronic dictionaries, namely, pocket electronic dictionary (P*ED*), CD-ROM and terminological banks, pronunciation is available in audio format, the lexical item is said accurately. Spoken pronunciation is well represented. Hausmann (1989) congratulates the developments in lexicography and highlights the advantages of electronic dictionaries when stating:

> The electronic dictionary, even its smallest, portable variety, already
> has an advantage over any printed dictionary of whatever size: It can
> give pronunciation viva voce, in real sound.

With the introduction of sound in electronic dictionaries accuracy of how sounds are articulated in real or natural speech is secured. In introducing the type of the dictionary like the above, problems with varying views on tonal marking and space constraints when it comes to complete phonetic transcription would be no more threat to the adequate representation of phonetic-phonological information in future dictionaries. A learner would be in a better position of listening to the sound and imitate the pronunciation without learning phonetic symbols.

The design of phonetic transcription in electronic dictionaries is described as user-friendly. Sobkowiak (1996:181) supports the effectiveness of phonetic transcription in machine readable dictionaries towards achieving: (a) clarity and ease and (b) consistency and grapho-phonemic bi-uniqueness.

The typical entry of an electronic dictionary is not different from the printed form, because information is also placed after the orthographic form, before accessing the pronunciation information the user has to search the spelling of the entry first. The move towards these dictionaries will solve most problems facing phonetic information at the present moment.

4.9 CONCLUSION

The inclusion of pronunciation information in dictionaries is essential for a variety of dictionary users such as general users, second-language learners and school children. It is incorporated in various dictionary types in order to represent the phonetic and the phonological side of the linguistic unit.

The following points should be considered when including phonetic information in Nguni dictionaries.

> Any information on pronunciation should be placed immediately after the lemma
> The kind of transcription that is recommended is phonetic transcription
> The symbols to be used are the IPA symbols conforming to IPA principles
> Phonetic transcription should be in roman type and set off in square brackets
> Tonal information should be enclosed in round brackets
> A minimum number of pronunciation features should be selected

It is concluded that any type of transcription that is selected must attempt to represent each and every sound by a distinct mark and no sound should be represented in more than one way.

CHAPTER 5

CONCLUSION

The main objective of this study has been that of addressing the phonetic-phonological component as part of the lemma structure in the treatment of lexical items in a dictionary. This aspect has often been neglected in most of the existing dictionaries and particularly the dictionaries in African languages. The Nguni languages dictionaries in particular have been critically examined in order to determine whether or not this aspect has been considered.

The phonetic-phonological component exhibits the vital role in the learning of the phonetic-phonological system, that is, the phonemes of the language described and their phonetic values. It comprises the representation of the phonetic as well as the phonological information of the lemma as part of its microstructure. Some lexicographers tended to perceive it as insignificant information in dictionary- writing and locate it to grammar books only.

In a brief overview of dictionary typologies conducted in this work, the global and international standards of representing pronunciation assisted the researcher to measure the principles that could have been followed in dictionaries of other languages other than the European languages. A great improvement of representing the speech form of languages, particularly in English dictionaries demonstrates the new attitudes towards incorporating phonetic information in general and pedagogical dictionaries.

The evaluation of how phonetic-phonological information is represented does not only show the inadequacy of such an information in the dictionaries analysed, but provides the reader with a full insight of what is meant by the concept phonetic-phonological information and pronunciation as its representative form. The understanding of these concepts will not only help Nguni language lexicographers in the method of representation but it will make an enormous contribution in selecting the lexicographical relevant information to be incorporated in dictionaries of the African languages. Furthermore, the discrepancies and inconsistencies displayed in various types of dictionaries stem from typographical and linguistic assumptions. The tradition in Nguni dictionaries has been focussing on the marking of tone, disregarding the representation of segmental phonemes to form a comprehensive handling of this key component for effective communication.

What is successfully gained from the discussions is that Nguni dictionaries were not compiled in fulfilment of the needs of the speech community as such hence the semantic bias demonstrated in the majority of dictionaries. Dictionaries are not only compiled for communication and pedagogic role, putting or record of speech sounds of the language should also be recognised.

The gap between linguistic and lexicographic theories that existed before was hoped to be eliminated with a view to present complete and accurate phonetic-phonological information. The study hopes that an interface between lexicography as an applied science should strive for comprehensiveness and representativity. The theory of lexicography may be beneficial if it is successfully linked with contemporary development in linguistics. The incorporation of phonetic-phonological information should be supported by recent development in phonetics and phonological studies. Geeraerts (1984:53) supports this view when writing:

> It is matter of mere adequacy that the information the
> lexicographer presents to his readers be scientifically
> accurate. The choice of those data, however, may rely
> heavily on functional criteria.

Having established a need for interfacing the two sciences, lexicography and linguistics, it is therefore maintained here that what is demonstrated in existing Nguni dictionaries is a big challenge for the better treatment of pronunciation in consideration of the role it plays in the communication process. In the body of the study it have been clear that the inclusion of pronunciation information does not only depend on linguistic research, lexicographic planning is also a vital component. The problems of inconsistencies are the results of ad hoc planning. The situation demands proper planning before the actual compilation of the dictionary. The decisions to incorporate pronunciation in any type of a dictionary should take into consideration the following:

➢ thorough analysis of both phonetic and phonological system of the language
➢ the choice of data to be incorporated to be soundly based on linguistic assumptions
➢ IPA symbols should conform to the principles of the International Phonetic Alphabet to achieve consistency.

It has also been emphasized in the recommendation for the improved methods of incorporating pronunciation that up to now the utilization of the International Phonetic Alphabet is the most convenient system that can be effectively used in dictionaries generally, because of the following reasons: -

> its universal and international character.
> effectiveness in disambiguating the sounds structure of the languages analysed and described.
> the bi-uniqueness and precision of the international phonetic symbols.

It is noticeable that the study's concern was the indication of pronunciation of words when occurring in isolation, for further research prosodic variation an its lexicographic relevance can give a full treatment of the topic. Secondly investigation of the effectiveness of pronunciation when used in electronic dictionaries may contribute towards new insights on computer lexicography.

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APPENDIX A

The International Phonetic Alphabet with a set of symbols representing segmental and suprasegmental phonemes.

THE INTERNATIONAL PHONETIC ALPHABET (revised to 1993, corrected 1996)
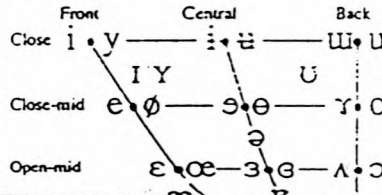
CONSONANTS (PULMONIC)

	Bilabial	Labiodental	Dental	Alveolar	Postalveolar	Retroflex	Palatal	Velar	Uvular	Pharyngeal	Glottal
Plosive	p b			t d		ʈ ɖ	c ɟ	k g	q ɢ		ʔ
Nasal	m	ɱ		n		ɳ	ɲ	ŋ	N		
Trill	ʙ			r					R		
Tap or Flap				ɾ		ɽ					
Fricative	ɸ β	f v	θ ð	s z	ʃ ʒ	ʂ ʐ	ç ʝ	x ɣ	χ ʁ	ħ ʕ	h ɦ
Lateral fricative				ɬ ɮ							
Approximant		ʋ		ɹ		ɻ	j	ɰ			
Lateral approximant				l		ɭ	ʎ	ʟ			

Where symbols appear in pairs, the one to the right represents a voiced consonant. Shaded areas denote articulations judged impossible.

CONSONANTS (NON-PULMONIC)

Clicks	Voiced implosives	Ejectives
ʘ Bilabial	ɓ Bilabial	Examples:
ǀ Dental	ɗ Dental/alveolar	p' Bilabial
ǃ (Post)alveolar	ʄ Palatal	t' Dental/alveolar
ǂ Palatoalveolar	ɠ Velar	k' Velar
ǁ Alveolar lateral	ʛ Uvular	s' Alveolar fricative

ʍ Voiceless labial-velar fricative
w Voiced labial-velar approximant
ɥ Voiced labial-palatal approximant
H Voiceless epiglottal fricative
ʕ Voiced epiglottal fricative
ʡ Epiglottal plosive

ɕ ʑ Alveolo-palatal fricatives
ɺ Alveolar lateral flap
ɧ Simultaneous ʃ and x

Affricates and double articulations can be represented by two symbols joined by a tie bar if necessary.

k͡p t͡s

VOWELS

SUPRASEGMENTALS

ˈ	Primary stress	
ˌ	Secondary stress	ˌfoʊnəˈtɪʃən
ː	Long	eː
ˑ	Half-long	eˑ
˘	Extra-short	ĕ
ǀ	Minor (foot) group	
ǁ	Major (intonation) group	
.	Syllable break	ɹi.ækt
‿	Linking (absence of a break)	

TONES AND WORD ACCENTS

LEVEL		CONTOUR	
e̋ or ˥	Extra high	ě or ˩˥	Rising
é ˦	High	ê ˥˩	Falling
ē ˧	Mid	e᷄ ˦˥	High rising
è ˨	Low	e᷅ ˩˨	Low rising
ȅ ˩	Extra low	e᷈ ˧˦˧	Rising-falling
ꜜ	Downstep	↗	Global rise
ꜛ	Upstep	↘	Global fall

DIACRITICS

Diacritics may be placed above a symbol with a descender, e.g. ŋ̊

̥	Voiceless	n̥ d̥	̤	Breathy voiced	b̤ a̤	̪	Dental	t̪ d̪
̬	Voiced	s̬ t̬	̰	Creaky voiced	b̰ a̰	̺	Apical	t̺ d̺
ʰ	Aspirated	tʰ dʰ	̼	Linguolabial	t̼ d̼	̻	Laminal	t̻ d̻
̹	More rounded	ɔ̹	ʷ	Labialized	tʷ dʷ	̃	Nasalized	ẽ
̜	Less rounded	ɔ̜	ʲ	Palatalized	tʲ dʲ	ⁿ	Nasal release	dⁿ
̟	Advanced	u̟	ˠ	Velarized	tˠ dˠ	ˡ	Lateral release	dˡ
̠	Retracted	e̠	ˤ	Pharyngealized	tˤ dˤ	̚	No audible release	d̚
̈	Centralized	ë	̴	Velarized or pharyngealized	ɫ			
̽	Mid-centralized	e̽	̝	Raised	e̝	(ɹ̝ = voiced alveolar fricative)		
̩	Syllabic	n̩	̞	Lowered	e̞	(β̞ = voiced bilabial approximant)		
̯	Non-syllabic	e̯	̘	Advanced Tongue Root	e̘			
˞	Rhoticity	ɚ a˞	̙	Retracted Tongue Root	e̙			

APPENDIX B

An example of how segmental phonemes are phonetically transcribed in the *Greater Dictionary of Xhosa Vol 3.*

ukú·tshàbà [tʃʰ] nz/v (dlul/perf -tshàbìlè, -tshàbê; nzl/ap ukutshábèlà):

ukuphuma komphefumlo womntu, ukubhubha, ukusweleka, ukushiya eli phakade, ukusandulela, ukuya kwelemimoya:

uKase utshabe eshiya oonyana abathathu:

pass away, die:

Kase passed away and is survived by three sons.

sterf, te sterwe kom:

Kase het gesterf en drie seuns nagelaat.

ukú·tshàbhà [tʃˀ] nz/v (mi/stat -tshàbhìlè, -tshàbhê; nzs/caus ukutshábhìsà):

ukuphelelwa bubuhle nomtsalane, ukuphelelwa yindili, ukuba nomdintsi:

isimo sakhe esibi simenze watshabha kum ngoku:

of a person or thing: lose his/its attraction, be disliked, fall into disfavour:

her misbehaviour has caused me to dislike her.

van 'n persoon of ding: sy aantrekkingskrag verloor, ongelief raak, in onguns verval:

haar wangedrag het my 'n afkeer van haar gegee.

APPENDIX C

The alphabetic list of isiXhosa speech sounds and their phonetic representation. (GDX: 1989).

gcw	[ĝ͜ǀw]	[ǀgw]	isicuku samaqabane, umz -gcwele
gl	[gl̥]		isicuku samaqabane, umz iglasi
gq	[ĝ͜ǃ]	[ǃg]	isiqhakancu somphambili-nkalakahla esiphungulwe ilizwi, umz ukugquma
gqw	[ĝ͜ǃw]	[ǃgw]	isicuku samaqabane, umz igqwetha
gr	(i) [gr]		isicuku samaqabane, umz igrabile
	(ii) [ɣ]		isifutho samakhuhlangubo esinelizwi, umz ukugrogrisa
gw	[gw]		isicuku samaqabane, umz igwegwe
gx	[ĝ͜ǁ]	[ǁg]	isiqhakancu secala longqameko esiphungulwe ilizwi, umz igxagxa
gxw	[ĝ͜ǁw]	[ǁgw]	isicuku samaqabane, umz ukugxwala
h	(i) [h]		isifutho sesangozwi esingenalizwi, umz uhili
	(ii) [ɦ]		isifutho sesangozwi esinelizwi, umz iholo
hl	[ɬ]		isifutho secala longqameko esingenalizwi, umz ukuhlohla
i	(i) [i]		isikhamiso esiphezulu esibuvaleka somphambili-lwimi, umz isilili
	(ii) [ɪ]		isikhamiso esiphezulu esibuvuleka; sisikhamiso esinqabileyo esiXhoseni; sivakala kuphela kumaganyana anjengala: hī?, ī! (= ina!), tyhɪn! (= tyhini!), hīnle! (= yini le!)
j	(i) [d͡ʒ]		isidubuli-sifutho somphambili-nkalakahla esiphungulwe ilizwi, umz ujejane
	(ii) [d͡ʒ]		isidubuli-sifutho somphambili-nkalakahla esinelizwi esiphinyiselwa nesinkantazi, umz njalo
k	[kʔ]		isidubuleli-ngaphandle samakhuhlangubo esitsolisiweyo esingenalizwi, umz ukukakaza, inkenkema
kc	[k͡ǀ; ʔ]	[kǀ]	isiqhakancu songqameko esitsolisiweyo esandulelwa sisinkantazi u-n, umz inkcithakalo
kh	[kʰ]		isidubuleli-ngaphandle samakhuhlangubo esingenalizwi esinohahazo, umz isikheme-kheme
khr	[kʰr]		isicuku samaqabane, umz ikhrashi
kl	[kʔl]		isicuku samaqabane, umz iklasi
kq	[k͡ǃ; ʔ]	[kǃ]	isiqhakancu somphambili-nkalakahla esitsolisiweyo emva kwesinkantazi u-n, umz inkqayi
kr	(i) [kʔr]		isicuku samaqabane, umz ikriva
	(ii) [k͡xʔ]		isidubuli-sifutho samakhuhlangubo esitsolisiweyo esingenalizwi, umz ukukrokra
krw	[k͡xʔw]		isicuku samaqabane, umz krwada
l	(i) [l]		isilalazi secala longqameko, umz ilolo
	(ii) [lɦ]		ezinye izithethi: kwimbinana yamagama, umz loo nto, nasekuphetheni ibinzana okanye isivakalisi, umz indlela
lw	[lw]		isicuku samaqabane, umz umlwelwe
m	(i) [m]		isinkantazi semilebe, umz umama; sikho nakwiimbumba-zinkantazi, mb mp, umz iimbambo, impompo
	(ii) [ɱ]		isinkantazi semilebe-mazinyo esifumaneka kuphela nezidubuli-zifutho zemilebe-mazinyo, u-f [ɱɸf] no-v [ɱɓ] umz imfano, imvula
mf	[ɱɸf͡ʔ]		isicuku samaqabane, umz ukumfimfitha
mh	[mɦ]		isinkantazi semilebe esiphefumlelweyo esinelizwi, umz

APPENDIX D

The significance of lexical tone-marking from isiZulu and isiXhosa dictionaries.

-thángà isiqu solandulo kwelimiyo sika-*ukuthi:*
le ndlela ayithanga tse:

azithanga dadobawo: aziphelelanga iingqondo: kgl *udade:*

í·thàngá b/n 5/6: umntla womlenze ukususela edolweni ukuya kuthi ga ngesinqe:

í·thàngà b/n 5/6 *·tàngà: 1 *Cucurbita pepo;* sesinye sezilimo ezilinywa ngabantu; lo mthi kunaba imilibo emide enamagqabi amakhulu asixwexwe nexakatha amagaqa atyïwayo amakhulu, amhlophe, amboxo okanye angqukuva okanye asidyákamfu:

2 umntu olityutyusi levila, othambileyo, odangeleyo, onqena ngendlela eyodwa:

inkovu iphuma ethangeni: yonke into inesizekabani xa ithe yonakala:

ithanga liphum' ezaleni: ihlwempu liyasizala isityebi; umzi okanye umntu obejongelwe phantsi uzala umntana osuka enze izinto ezilungileyo:

neg stem, stat of *ukuthi:*
this road is not straight;

said of a simple-minded person, a simpleton; see *udade.*

thigh.

1 pumpkin, *Cucurbita pepo;*

2 a very lazy, indolent person;

there is no smoke without fire; see *inkovu;*

lit: *the pumpkin grows out of the dunghill or rubbish heap:* a pauper may beget wealthy offspring; the child of a lowly parent may become great, may achieve great things.

neg stam, stat van *ukuthi:*
hierdie pad is nie reguit nie;

gesê van iemand wat eenvoudig begrip is; sien *udade.*

dy, bobeen.

1 pampoen, *Cucurbita pepo;*

2 aartslui, dooierige persoon;

waar 'n rokie is moet 'n vuurtjie brand; sien *inkovu;*

lett: *'n pampoen groei op 'n ashoop:* die nageslag van 'n arm man kan ryk word: die kind van 'n eenvoudige persoon kan groot dinge vermag.

-bélé (î(ílí)- ámá-) *bz* isitho somzimba esincelwa yingane/yinkonyane.
-belé' (î(ílí)- ámá-) *bz* izinhlamvu zesilimo, okwenziwa ngazo utshwala kugaywe nomcaba; ibele elihle lidliwa ngumninilo — umnikazi uyazikhethela ezintweni zakhe; weqiwe amabele — uphuze kakhulu utshwala, udakiwe.

APPENDIX E

EXAMPLE ENTRIES FROM ISIZULU AND ISIXHOSA EXTRACTED FROM ZED AND GDX .

kekela (3.2.9—*k'*) v. [<obs. kéke. >perf. -kekelile; pass. kekelwa; ap. kekelela; caus. kekelisa; kekeleza.]
Walk sideways, walk as a crab; walk in circles. *Ukekela ngoɓa ayilingani imilenze yakhe* (He walks crookedly because his legs are not of the same length).

kekeleza (3.3.2.9—*k'*) v. [<kekela. >perf. -kekelezile; pass. kekelezwa; ap. kekelezela; caus. kekelezisa.]
Walk sideways (like a crab).

kékelu (8.8.9—*k'*) ideo.
of the call of a partridge. [cf. *kekela.*]

keketsheka (3.3.2.9, *k'ɛk'ɛtʃ'é:ka*) v. [>perf. -keketshekile; ap. keketshekela; caus. keketshekisa.]
Prance about on a horse.

°kela (6.3—*k'*) v. [<°isikele. >perf. -kelile; pass. kelwa; neut. keleka; ap. kelela; rec. kelana; caus. kelisa; isikelo.]
Cut, clip (as the hair). [cf. *gunda.*]

°-kela (i(li)kela, 2.4.3.9, amakela—*k'*) n.
hlonipha term for *i(li)sela*, robber.

°-kele (isikele, 3.2.9.9, izikele—*k'*) n. [<Afr. *skeer.*]
Pair of scissors; shears. [cf. *°usezeze*; v.l. *°isikelo.*]

°-kelemu (isikelemu, 6.6.3.9.9, izikelemu—*k'*) n. [<Afr. *skelm.* >°uɓukelemu.]
Robber, burglar; fighter; ruffian; one always quarrelling, disturbing the peace (term applicable in civilized society). [cf. *isigeɓengu, isigcwelegcwele.*]

°-kelemu (uɓukelemu, 6.6.3.9.9—*k'*) n. [<°isikelemu.]
Lawlessness.

kétshe (6.3—*k'*) ideo. [>ketsheza; u(lu)ketshe.]
1. of being unstable (as water swinging in a half-filled bucket). [cf. metath. *tshéke.*] *Liɓambe kahle igula, lingalokhu lithi kétshe-kétshe kuchitheke uɓisi* (Hold the calabash carefully, and don't let it keep swinging about so that the milk spills over).
2. of diminishing in quantity (of liquid); of being partly full. *Qulela amanve amanzi, aselokhu ethi kétshe-kétshe ngenxa yokuɓila* (Pour in some more water, it is constantly dwindling on account of the boiling).

-ketshe (u(lu)ketshe, 3.2.9.9, izinketshe—*k'*) n. [<kétshe.]
Thin, watery substance. [cf. *u(lu)ketsheza.*]

ketsheza (3.2.9—*k'*) v. [<kétshe. >perf. -ketshezile; ap. ketshezela; caus. ketshezisa; u(lu)ketsheza.]
1. Be unstable (of liquid); swing about (as half-filled bucket).
2. Dwindle in quantity (of liquid); be partly full.
3. Become thin, watery (as porridge).

-ketsheza (u(lu)ketsheza, 3.2.6.3.9, izinketsheza—*k'*) n. [<ketsheza.]
Thin, watery substance (e.g. gruel, thin porridge). [cf. *u(lu)tsheke.*]

kétu (6.3—*k'*) ideo. [>ketuka; ketula; uɓuketuketu.]
of upsetting, tumbling over. *Isihlalo sithé kétu sawa naye* (The chair upset and fell with him).

ketuka (3.2.9—*k'et'ú:ka*) v. intr. [<kétu. >perf. -ketukile; ap. ketukela; caus. ketukisa.]
Tumble over, get upset; turn a somersault.

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uku-tshakádûlâ [tʃ', tʃ'] nz/v (dlul/perf -tshákádûlè, -tshákádûlé; nzl/ap ukutshakadûlèlà; nzs/caus ukutshakadûllsá; nzw/pass ukutshakádûlwà):
1 ukutsiba-tsiba ukhaba-khabe okomntwana; uku-gqakadula:
2 ukugabadula, ukuphala kakuhle, okwehashe:

in-tshakátshôlô b/n 9/10: 1 umnyaka we-1884 othe wanceenkwenkwezi ezitshekayo ezaba ninzi kakhulu agawo (Kr-G):
2 into eqaqambileyo edlula zooke ezinye ngokubaluleka, ngobuhle, njl; imbalasane, intshatsheli:
3 umntu othanda iindawo eziphambili, ode ezinyanzele angene entweni kuba efuna ukuba phambili; umtutsuzi, ugqadambekweni; za kulapha eli gama lisetyenziswa njengesigxeko:

in-tshákávù, in-tshakávùlà b/n 9/10: umntu okrwada, okhohlakeleyo ongenasimilo, ontetho ilumezayo za athethayo:

in-tshákàxà b/n 9/-: into ekukutya, etyiwayo eduma, engenancasa, edyivi-dyivi, ejavu-javu:

1 jump, kick, skip about like children;
2 of a horse: gallop steadily.

1 the year of the meteors, 1884 (Kr-G);
2 an outstanding, excellent, pre-eminent person or thing;
3 one who seeks high positions all the time to the extent of becoming officious and meddlesome.

a crude, rude, uncouth, unrefined, ill-mannered person.

tasteless food.

1 spring, skop, baljaar, soos kinders;
2 van 'n perd: gelykmatig galop.

1 die jaar van die meteore, 1884 (Kr-G);
2 'n persoon of ding wat uitsonderlik, buitengewoon, skitterend is;
3 iemand wat soek om gesien te word, in so 'n mate dat hy vitterig en bemoeisiek is.

wrede, onbeskofte, onverfynde, ongemanierde, ongure persoon.

smaaklose kos.

APPENDIX F

INCONSISTENT MARKING OF TONEMES IN ZULU DICTIONARIES

LEXICAL ITEM	ACNKA.2	SLNY
umngu	úmungŭ	-ngú
bhashu	bhàshu	bhashu
ukuphica	úkúPhica	phicá
swayi	swàyi	swayi
ukubuza	úkuBúza	búzá
ukweqa	úkwEQA	eqa
isaga	ÂGǍ	-âgá
nkamfu	NKÀMFÚ	nkamfu
golokoqo	GÒlokoqo, Gòlokoqo	gólokoqo
ukudla	úkuDLA	dlá

APPENDIX G (a)

An example of a key to pronunciation from *A Practical Ndebele Dictionary* illustrating a respelling method of indicating pronunciation.

PRONUNCIATION

The following alphabetical list is given to help non-Ndebele-speaking people who wish to learn the language. It must be noted, however, that it is a guide only, for the pronunciation of any Bantu language is best learnt by listening carefully to the African.

a — as "a" in "father".

b — implosive "b"; no equivalent sound in English.

bh — aspirated and explosive "b"; as "b" in "baby".

c — the dental click, made by pressing the tip of the tongue against the upper teeth and sharply withdrawing it.

ch — aspirated dental click.

gc — voiced dental click.

nc — nasal dental click.

ngc — aspirated nasal dental click.

d — as "d" in "dead".

dl — no equivalent in English. Similar to "dl" in "saddler", but the tip of the tongue is placed further back from the upper teeth.

e — as "e" in "fed".

f — as "f" in "food".

g — as "g" in "go".

h — as in English, but often with a slight, sharp guttural sound (as the Dutch "g").

hl — similar to the Welsh sound "ll".

APPENDIX G (b)

Key to pronunciation using IPA Symbols from English to Zulu Dictionary (EZD).

KEY TO PRONUNCIATION

VOWELS

Phonetic symbol	English keyword	Zulu equivalent
a (French origin, e.g. à la mode)		
ɑ (Afrikaans origin, e.g. aardvark)		
ɑ:	bar	ubaba
æ	hat	
ai	my	
au	cow	
e	pen	elekelela
ei	day	[wethu][1]
eɔ	air	[wena][1]
ə	about, other	
ə:	bird	
i	pity	
i:	see	fika
iɔ	deer	
ju	you, tutor	yúbu
o	location	bonisa
ou	no	[lokhu][1]
ɔ	pot	
o:	saw	bona
ɔi	oil	
u	foot	
u:	food	thula
uɔ	poor	
ʌ	up	

CONSONANTS

b	as in English	big	and Zulu	hamba
d	„ „	dog	„	indoda
dʒ	„ „	judge	„	jabula
f	„ „	for	„	fica
ɸ	„ „	saugh		
g	„ „	go	„	dinga
h	„ „	hand	„	hamba
j	„ „	yet	„	yona
k	„ „	king	„	[okhaya][1]
l	„ „	land	„	loba

[1] [ ] pure vowels in Zulu, but diphthongs in Standard Southern English.
[1] [ ] this explosive consonant is more fully aspirated in Zulu than in English.

kekela (3.2.9—*k*ᵛ) v. [<obs. kéke. >perf. -kekelile; pass. kekelwa; ap. kekelela; caus. kekelisa; kekeleza.] Walk sideways, walk as a crab; walk in circles. *Ukekela ngoɓa ayilingani imilenze yakhe* (He walks crookedly because his legs are not of the same length).

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keketsheka (3.3.2.9, *k*ᵛ*ck*ᵛ*ctʃ*ᵛ*é:ka*) v. [·perf. -keketshekile; ap. keketshekela; caus. keketshekisa.] Prance about on a horse.

***kela** (6.3—*k*ᵛ) v. [< *isikele. >perf. -kelile; pass. kelwa; neut. keleka; ap. kelela; rec. kelana; caus. kelisa; isikelo.] Cut, clip (as the hair). [cf. *gunda.*]

°**-kela** (i(li)kela, 2.4.3.9, amakela—*k*ᵛ) n. hlonipha term for *i(li)sela*, robber.

***-kele** (isikele, 3.2.9.9, izikele—*k*ᵛ) n. [< Afr. *skeer.*] Pair of scissors; shears. [cf. *usezeze; v.l. *isikelo.]

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***-kelemu** (uɓukelemu, 6.6.3.9.9—*k*ᵛ) n. [< *isikelemu.*] Lawlessness.

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  2. of diminishing in quantity (of liquid); of being partly full. *Qhela amanve amanzi, aselokhu ethi ketshe-kétshe ngenxa vokuɓila* (Pour in some more water, it is constantly dwindling on account of the boiling)

-ketshe (u(lu)ketshe, 3.2.9.9, izinketshe—*k*ᵛ) n. [< kétshe.] Thin, watery substance. [cf. *u(lu)ketsheza.*]

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ketuka (3.2.9—*k*ᵛ*et*ᵛ*ú:ka*) v. intr. [<kétu. >perf. -ketukile; ap. ketukela; caus. ketukisa.] Tumble over, get upset; turn a somersault.

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uku·tshakádùlà [tʃᵛ, tʃᵛ] nz/v (dlul/perf -tshàkàdùlè, -tshàkàdùlè; nzl/ap ukutshakadúlèlà; nzs/caus ukutshakadúlìsà; nzw/pass ukutshakádùlwà):

1 ukutsiba-tsiba ukhaba-khabe okomntwana; ukugqakadula:

2 ukugabadula, ukuphala kakuhle, okwehashe:

1 jump, kick, skip about like children;

2 of a horse: gallop steadily.

1 spring, skop, baljaar, soos kinders;

2 van 'n perd: gelykmatig galop.

in·tshakátsbòlò b/n 9/10: 1 umnyaka we-1884 othe wanceakwenkwezi ezitshekayo ezaba ninzi kakhulu ngawo (Kr-G):

2 into eqaqambileyo edlula zonke ezinye ngokubaluleka, ngobuhle, njl; imbalasane, intshatsheli:

3 umntu othanda iindawo eziphambili, ode azinyanzele angene entweni kuba efuna ukuba phambili; umtutsuzi, ugqadambekweni; xa kulapha eli gama lisetyenziswa njengesigxeko:

1 the year of the meteors, 1884 (Kr-G);

2 an outstanding, excellent, pre-eminent person or thing;

3 one who seeks high positions all the time to the extent of becoming officious and meddlesome.

1 die jaar van die meteore, 1884 (Kr-G);

2 'n persoon of ding wat uitsonderlik, buitengewoon, skitterend is;

3 iemand wat soek om gesien te word, in so 'n mate dat hy vitterig en bemoeisiek is.

in·tshakávù, **in·tshakávùlà** b/n 9/10: umntu okrwada, okhohlakeleyo ongenasimilo, ontetho ilumezayo xa athethayo:

a crude, rude, uncouth, unrefined, ill-mannered person.

wrede, onbeskofte, onverfynde, ongemanierde, ongure persoon.

in·tshákàxà b/n 9/-: into ekukutya, etyiwayo eduma, engenancasa, edyivi-dyivi, ejavu-javu:

tasteless food.

smaaklose kos.