Analysis of Word and Entry Arrangement in siSwati Bilingual Dictionaries

Tankiso Motjope-Mokhali

Department of African Languages and Literature, University of Eswatini, Kwaluseni, Eswatini
Email: tlmotjope@uniswa.sz

Abstract

This qualitative study examines the arrangement of words and entries in three siSwati bilingual dictionaries: *Concise SiSwati-English/English-SiSwati*, *Silulu SeSiSwati English-SiSwati/ SiSwati-English*, and *SiSwati-English Dictionary*. The research investigates whether these dictionaries effectively assist non-siSwati speakers and siSwati speakers in locating information. The study was motivated by observations that both second-language and mother tongue siSwati learners enrolled in a lexicography course at the University of Eswatini encountered difficulties when searching for words in the dictionaries. Using a comparative analysis of existing dictionary contents and learner's interviews, this study adopts a user-perspective approach. Key findings reveal that all three dictionaries employ distinct arrangements for headwords and information, each following its own presentation style. Notably, in *Silulu SesiSwati English-SiSwati/ SiSwati-English Dictionary*, certain words and details appear in only one section, either English-siSwati or siSwati-English, but not both. Again, some dictionaries lack user guidance on how to access information effectively. The study also reveals that some learners had difficulty locating lemmas. The study concludes that these dictionaries are not user-friendly, particularly for users with limited dictionary skills. To address this, it recommends that teachers introduce learners to African language dictionaries at an earlier stage of their acquisition. Furthermore, siSwati lexicographers should revise existing dictionaries to better accommodate the needs of diverse user groups.

Keywords

Bilingual Dictionary, Headword/Lemma, Dictionary Entry, Stem Tradition, Word Tradition, Lemmatisation

1. Introduction

In Eswatini, like in other African countries such as Lesotho, Botswana, Zimbabwe,

Gabon just to mention a few, missionaries developed the first dictionaries. According to Makoni and Mashiri (2007), in Africa, the development of lexicography was driven by Christianity, colonialism, neo-colonialism and Black Elite Supremacy. This is supported by Chabata and Nkomo (2010) who point out that missionaries produced dictionaries in African languages so that they could be used for evangelism and encourage Africans to adopt the European culture.

Scholars noted that the majority of the early dictionaries in African languages were bilingual (Otlogetswe, 2013; Nkomo, 2008; Makoni & Mashiri, 2007; Gouws, 2005; Awak, 1990; Busane, 1990). The first siSwati dictionaries were also bilingual. The dictionaries produced before 1980 were written in isiZulu as siSwati orthography was adopted in 1969 and published in 1980. Rycroft (1981: vii) posits that:

> Since 1968 when Swaziland became an independent sovereign State, siSwati has steadily been replacing Zulu in education, administration and public life and its use as a written medium has grown rapidly…The orthography [was] officially adopted by the Swaziland Government in 1969.

This study analyses the three bilingual dictionaries that were written using the siSwati orthography, namely: *Concise SiSwati-English/English-SiSwati* by Rycroft (1981), *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* by Silulu SesiSwati Lexicography Unit (2010), and *SiSwati-English Dictionary* by Whelton and Mphungane (2013). Of the three dictionaries, *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* was compiled by siSwati native speakers. The dictionaries were selected because they are the only bilingual dictionaries used in Eswatini. The other list of words is trilingual with English, Afrikaans and siSwati and two monolingual dictionaries. The three bilingual dictionaries are easily accessible.

Dictionaries have always been the essential sources of vocabulary, and their presence encourages an in-depth learning of languages. They are important pedagogical tools which play a vital role in language learning. According to Alberts (1999), a dictionary is a tool used for the development and preservation of languages, for knowledge transfer to the targeted education or training levels and for the promotion of effective communication between people within the same community or across boundaries. In other words, dictionaries are created to meet the specific linguistic needs of a community. Bilingual dictionaries in particular, promote bilingual and multilingual communication between people whose languages are different.

Bilingual dictionary

In a bilingual dictionary, words are written in one language and their equivalents are given in another language. According to Atkins and Varantola (2008), bilingual dictionaries provide what they call "primary information", which includes Language 2 (i.e., second language) translation. Some scholars emphasise that the main purpose of producing bilingual dictionaries is to make a foreign speaker understand the words of the language. Chabata (2007) and Chabata and Nkomo (2010) concur that the bilingual dictionaries are meant particularly for

second-language speakers, since they are used as tools for the acquisition of vocabulary. This is why the words of one language are explained in another language. This type of dictionary is used for the purposes of translation, reading and speaking. Though bilingual dictionaries in some African countries were initially created for the missionaries and their other European colleagues, currently almost all Africans who need to learn any other African language need them for purposes mentioned earlier. Many Africans reside in other African countries for various purposes, including employment or education. Consequently, they often need to acquire the language of the host country. Furthermore, some African universities such as the National University of Lesotho (NUL), Great Zimbabwe University and University of Eswatini offer languages belonging to the Bantu group of languages as second languages. As a result, both lecturers and students are forced to use bilingual dictionaries. In addition, due to the introduction of translation and interpreting studies in colleges and universities as well as the increased rate of international commerce and multinational cooperation in science and technology, bilingual dictionaries are equally needed for second language learners and mother tongue speakers.

However, one of the issues in African language lexicography that poses grave challenges is its arrangement of headwords/lemmas and entries in some dictionaries. In order for the user to find the meaning or spelling of any word s/he needs to start by looking up the lemma. According to Prinsloo (2013), this exercise is not difficult for languages such as English, German and French if the user knows the alphabet and has the basic dictionary skills but that is not the case with African languages. He states that lemmatisation in African languages is a bit challenging because the languages make use of two types of lemmatisation, namely:

- A word tradition which is normally used for the disjunctively written languages. In this type, headwords are arranged alphabetically based on the first letter of the headword in question; and
- A stem tradition which is used for conjunctively written languages. Here, lemmas are arranged according to the first letter of the stem/root.

In the word tradition, compilers need to decide whether to lemmatise singular and plural forms of nouns, or only singulars while in the stem tradition, they have to decide whether to lemmatise noun stems with or without their prefixes. Example:

imbuti (ti-) n. goat
-mbuti (ti-) **lib**. goat

The first example shows the word tradition while the second one represents the stem tradition. Example one shows that *imbuti* is presented under the letter (i). Here, both the singular (i-) as well as the plural prefixes (ti-) are offered. On the other hand, since *-mbuti* (ti-) begins with the first letter of the stem, it can be found under the letter (m). In this case, the singular prefix (i-) is not given instead the plural (ti-) is presented. These traditions contribute to the accessibility of words in dictionaries. This implies that users need to be familiar with the different

styles used in some of the dictionaries of African languages. According to Prinsloo and De Schryver (1999), some dictionaries of African languages arrange headwords in terms of the word stems and a phonemic sorting principle instead of normal alphabetical ordering just because the compilers considered it as "scientifically correct". This indicates that the compilers ignore the most important group in the compilation of dictionaries, the users.

Normally, the most predominant reason for the use of bilingual dictionary by the majority of ordinary people and second language learners is to look up the target language equivalents. However, in some African languages dictionaries finding words may not be easy as mentioned earlier. Therefore, the study investigates how words and entries are arranged in three siSwati dictionaries mentioned earlier to establish whether the dictionaries assist both second language learners and siSwati native speakers to easily locate information.

2. Research Methodology

This study employs a qualitative comparative analysis of headwords and their entries across three siSwati dictionaries: Rycroft (1981), Silulu SeSiSwati Lexicography Unit Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary (2010), and Whelton (2013). A qualitative approach was chosen because it aligns with the study's focus on textual analysis, allowing for detailed documentation, interpretation, and examination of dictionary contents. The selection of these dictionaries was based on two key criteria: 1) they were the only bilingual siSwati dictionaries available in standardised siSwati orthography at the time of research, and 2) they were accessible in libraries and bookshops across Eswatini. The extracts were selected using purposive sampling, with the researcher drawing on relevant dictionary entries to substantiate each argument. To further assess the dictionaries' effectiveness, semi-structured interviews were conducted with level four lexicography students at the University of Eswatini. Data analysis followed a thematic approach, categorising findings into key patterns and insights. The evaluation of the dictionaries was guided by the user-perspective approach, which emphasises the importance of producing dictionaries which take the target user groups and their research skills (i.e., the users' search skills) into consideration (Gouws & Prinsloo, 2005). That means this approach assesses whether the dictionaries are user-friendly and accessible in specific usage contexts, ensuring they meet the practical demands of their intended audience.

3. Findings and Discussion

The findings are presented according to themes in the following section.

3.1. Concise SiSwati-English/English-SiSwati Dictionary by Rycroft (1981)

This is the first dictionary to be written in siSwati orthography and is considered a pioneer in the language. Silulu SesiSwati Lexicography Unit quoted in *Silulu*

SeSiSwati English-SiSwati/SiSwati-English Dictionary (2010: iii) calls it "a great work in the domain of siSwati literary works, the first dictionary ever in the language." The dictionary was compiled by non-native speaker of siSwati. Rycroft (1981: vii) says the dictionary is compiled for "both siSwati and English speakers." It is bidirectional. In the first section, headwords are in siSwati followed by their English equivalents while in the second section, lemmas are in English with their equivalents in siSwati. Headwords are not in bold and word categories are in English throughout the dictionary. It is comprehensive in nature, providing notes before the alphabetical section showing: the orthography (i.e., spelling) and grammatical classifications (word categories: copulative predication; nouns, absolute pronouns, demonstrative pronouns, quantitative pronouns, adjectives, relative stems, enumerative, possessive stems, adverbs, idiophones, conjunctives and interjectives). It indicates diacritic signs; length and stress; siSwati speech sounds; tone and depression, tone-patterns of words; the noun class system (singular and plural classes); prefixes and concords; and verbal moods and tenses.

3.2. *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* by Silulu SeSiSwati Lexicography Unit (2010)

This is the second dictionary of siSwati and the very first produced by native speakers of siSwati. It came as a result of PanSABL initiative to promote multilingualism in South Africa (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary*, 2010: iii). The target users according to the compilers, are:

> school children from their entrance into high school, to the final classes. It is a practical reference designed to meet the requirements of those who need a beginning and intermediate dictionary…Words…have been selected for their direct relationship to the basic vocabulary needs of those who want to achieve English and siSwati language proficiency in reading, writing and speaking (2010: iv).

The dictionary is bidirectional as its title suggests with English-SiSwati on the first section and SiSwati-English on the second one. Notes before the English-SiSwati alphabetical part are in English and those before the SiSwati-English one, are in siSwati. This includes parts of speech. Headwords are in bold. It is not comprehensive (i.e., it does not provide information regarding the word usage, idioms are not defined, plural prefixes for nouns and inflectional forms for verbs are also not offered) (2010: iv). Other types of information provided are classes of nouns in siSwati; detailed information on the orthography (i.e. vowels and consonants); list of abbreviations; and pictures of cultural items, wild and domestic animals and birds, between the two sections, though only siSwati names were provided.

3.3. *SiSwati-English Dictionary* by Whelton and Mphungane (2013)

The dictionary was compiled by non-Swazis and was intended for siSwati speakers and siSwati learners. Unlike the other two dictionaries, *SiSwati-English Diction-*

ary is unidirectional words are from siSwati to English throughout the dictionary. Lemmas are in bold and parts of speech are in English. Detailed information is provided for the following: history of compilation, method used, orthography, tonal system, grammar, Singuni family, history, dialects, noun classes in siSwati, concords, palatalisation in siSwati, verbal extensions in siSwati, speech sounds and tonal marking. Information regarding Swazi place names, personal names and clan names is also provided. Illustrative sentences showing the usage of certain words in phrases/sentences are also offered in bold.

4. Comparison of the Three Dictionaries

This section compares the arrangement of headwords and entries in the dictionaries under discussion. It also presents users' views about their effectiveness.

4.1. Similarities

The three dictionaries are bilingual. They use stem tradition where headwords are arranged alphabetically in terms of the first letter of the stem/root/base. Again, the dictionaries treated derived forms as separate lemmas as is seen in the following extracts:

> **(kw) –akha** v.t. build, construct, make (*Concise SiSwati-English/English-SiSwati*, 1981: 1)
>
> **(kw) –akhela** v.t. 1. to build for, build at…(*Concise SiSwati-English/English-SiSwati*, 1981: 1)
>
> **(kw) –akhelana** v. 1. build for one another…(*Concise SiSwati-English/English-SiSwati*, 1981: 1)
>
> **akha kwakha** v.t. build, construct…(*SiSwati-English Dictionary*, 2013: 2)
>
> **akhela kwakhela** v.t. build for, build at…(*SiSwati-English Dictionary*, 2013: 3)
>
> **akhelana kwakhelana** v.rec build for one another…(*SiSwati-English Dictionary*, 2013: 3)
>
> **akha s.** construct; build; formulate (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati Dictionary*, 2010: 116)
>
> **akheka s.** be moulded (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati Dictionary*, 2010: 116)
>
> **akhela[1] s.** build for, build at (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati Dictionary*, 2010: 116)
>
> **akhelana[2] s.** build for one another (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati Dictionary*, 2010: 116)

Other features are shared by at least two, not all three.

4.2. Differences

Though the three dictionaries use the stem tradition, it is only the *Concise SiSwati-English/English-SiSwati* that clearly informs users about how lemmas are arranged in the dictionary. According to Rycroft (1981: ix), "most siSwati words

are entered NOT according to their very first letter, but by the first letter of their STEM". This information is on the notes offered before the alphabetical sections and it is for all users because there are no notes before the English-SiSwati section. The *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* on the other hand, provides information regarding the arrangement of lemmas in the siSwati-English section and not in English-siSwati one, as is observed in the following extract:

> Ligamanhloko libhalwa ngalokucindzetelwe. Lifakwa ngesicu, kulandzele sicalo lesibiyelwe ngebakaki, bese kulandzela sitfo senkhulumo (sibhalwa ngalokufishaniswe, kwacindzetelwa kwabuye kwatjekiswa, Sib. **-fana** (um-/ba-) *lib.* boy (2010: 105).

> Translation:

> The lemma is bolded. It is presented using the stem and the prefixes (singular/plural) in brackets. The part of speech is in bold, short form and italicised. Example: -**fana** (um-/ba-) *lib.* boy.

The dictionary provides notes for both sections though the notes are somehow different as the quote above reflects some inconsistencies regarding the presentation of information offered in the dictionary. The *SiSwati-English Dictionary* does not provide any details regarding the arrangement of headwords.

4.2.1. Nouns

It has been observed that nouns entered in the siSwati-English section of *Concise SiSwati-English/English-SiSwati* are presented in two different ways. There are those that start with the singular prefix though separated from the stem with a hyphen and those that appear as full words without showing the singular prefix and only the plural one is indicated. In the first method, the singular and plural prefixes are offered though in different locations. Example:

> lw-**ândlé** /tilw- *n*. (cl.11) sea (1981: 1)

Here, the singular prefix **lw-** appears before the stem - **ândlé** while the plural **tilw-** is presented after the stem followed by word category (*n*.), class number (cl.11) and the target language equivalent (sea). However, in the second method, lemmas belonging to class 1a are entered as full words as seen in the following extracts:

> *babé* /bō *n*. my/our father. (Also: my spouse's f.; my f.' brother; & used as a term of respect for any older man) (1981: 2)
> *bhatáta* /bō- *n*. sweet potato (1981: 4)
> *bhiyá* /bō- *n*. beer (1981: 4)

A similar pattern to that of method one is seen in the English-siSwati section where singular and plural prefixes are placed before the stem and after the stem respectively. Example:

barrel *n.* um-phongolo /imi- (1981:120)
bee *n.* i-nyosi /ti- (1981:121)

In the extracts above, singular prefixes **um-** and **i-** are offered before the stems and the plurals **imi-** and **ti-** after the stems.

The information about irregularities in noun prefixes is provided on the notes under noun prefixes. According to Rycroft (1981: ix), a few nouns of classes 7/8 employ the prefixes **s-/t-** instead of **si-/ti-**; and some in class 11 take the prefix **lw-** instead of **lu**-. Classes 9/10 also take **i-** and **t-** when the stem has an initial m, n, or nc as in *i-moto* (car); *i-nala* (abundance); *i-ncwadze* (book). The headwords *sabelo* (allocation, allotment, award, gift, lot, portion), *sámbane* (ant-bear; hard worker) and *lwândle* (sea) are examples of irregular nouns in siSwati as they do not overtly take the class 11 and 7 prefixes /lu/ and /si/ respectively (Rycroft, 1981). The following are examples of regular and irregular forms:

um-ábeli /b- n. one who allocates,…distributes (1981: 1)
s-ábelo /t- *n.* allocation, allotment, award, gift, lot, portion (1981: 1).
s-ámbane /t- *n.* ant-bear; hard worker (1981: 1).
lw-ândlé /tilw- *n.* (cl.11) sea (1981: 1).

The lemmas provided above cannot be found under the first letters of the prefixes (s-), (lw-) and (um-) as would be expected. They appear under the letter [**A**]. This means that the user should know which part of the word is a prefix and/or stem both regular and irregular forms.

Unlike Rycroft's dictionary, *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* does not separate nominal prefixes from the stems in the English-siSwati section. That is, the equivalents are written in full. Example:

announcement n. satiso, umbiko, simemetelo (2010: 4)
archives n. umsamo wesive (2010: 5)

Here, the headword is followed by word category and target language equivalent and no indication of the plural prefix as they mentioned earlier, that plural prefixes for nouns were not offered.

In the siSwati-English section, nouns begin with a hyphen followed by the stem and then by both the singular and the plural prefixes, the *lib* that represents the word category (noun) follows and then the target language equivalent. For instance,

-abeli (um-/ba-) *lib.* one who allocates, distributes, awards (2010: 115)
-shwa (li-/ema-) *lib.* misfortune, bad luck (2010: 395)

Though the compilers claim that plural prefixes are reserved for a comprehensive dictionary (2010: iv), in the siSwati-English section, both singular and plural prefixes have been offered as is evident in the extracts above. The items (**ema-**) and (**ba-**) represent plural prefixes of the words, respectively. This shows that the Silulu SeSiswati Lexicography Unit included information it claimed was reserved for a comprehensive dictionary.

SiSwati-English Dictionary on the other hand, does not include a hyphen before

lexical items to indicate that noun(s) start(s) with a stem. This gives the impression that the words begin with the first letter of their alphabet. However, there are exceptional cases as is observed in the examples below:

> **abito sábito**, **tábito** n. pronoun…(2013: 1)
> **ahluko sáhlûko**, **táhlûko** n. chapter (2013: 2)
> **alkhoholi i-álkhoholi** n. <Eng.alcohol (2013: 4).
> **-abhakhusi i-abhakhusi, éma-abhakhusi** n. <Eng.abacus (2013: 1)
> **-alimondi i-álimondi, éma-álimondi** n. <Eng.almond (2013: 4)

The first three extracts do not have hyphens while the fourth and fifth start with a hyphen. This is not caused by the fact that the *abhakhusi* and *alimondi* are loaned from English because the hyphen is not there in the word *alkhoholi i-álkhoholi*. Therefore, it is not clear why the hyphen is used in some cases and not in others since nothing has been said about it on the notes offered before the alphabetical section. In this dictionary, the first entry is the stem as in **abito** followed by the noun in its singular form **sábito**; then the noun in its plural form **tábito**; word category - n; and the target language equivalent pronoun.

4.2.2. Verbs

In *Concise SiSwati-English/English-SiSwati*, verbs are presented with their varied prefixes in the dictionary. According to Rycroft (1981: ix), verbs in siSwati have different infinitive prefixes such as (ku-, kw- or k-). He further states that in class 15, **kw-** occurs instead of **ku-**, (but **k-** before vowel o). In all the instances, the changes occur if the stem starts with a vowel. Additionally, Sibanda and Mthembu (1999) stipulate that the verb stems that begin with **consonants** take the infinitive **prefix (ku-)** however, if the word begins with the **vowel (o)**, we delete the vowel of the prefixal morpheme (u). As a result, the prefix employs the prefix (**k-**). They further mention that in words which start with **vowels (a & e)** the prefixal vowel (u) glides into (w) hence the prefix becomes (**kw-**). It is also noted that (ku-) can be used with borrowed words such as*(*ku)-ayina* (to iron). This is only acceptable with borrowed words because under normal circumstances this sequence of vowels is not allowed in the language. In this case, the prefix and the stem in the borrowed words should be separated by a hyphen as the vowels (u) and (a) cannot follow each as mentioned earlier. Rycroft provided users with the notes on usage of these prefixes and the information is considered helpful because without this knowledge users are likely to fail to write and utter the correct siSwati. The relevant prefixes, therefore, appear before the stems followed by word class and the target language equivalent as in:

(kw)-áti *v.t.* know, know how (as *n.*): knowledge, ability; information; understanding (1981:2)
(kú)-bola *v.i.* decay, rot (1981: 5)
k-oda v. to place an order, to ask for (1981: 77)

In *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary*, verbs are pre-

sented without prefixes in both the English-siSwati and siSwati-English sections. Example:

> **abandon v.** shiya; dzela; hlubuka; yekela; lahla. (2010: 1)
> **cultivate v.** lima; hlanyela (2010: 16)
> **hasha² s.** repeat or recite person's praises, repeat the clan praises. (2010: 223)
> **dvwebela s.** underline (2010: 175)

Data show verbs in their stem forms, with no indication of possible insertion – unlike nouns, that start with a hyphen. The headword is followed by word category and the target language equivalent in both sections.

Just like Rycroft (1981), Whelton and Mphungane offered verbs with their prefixes though differently. The stem is followed by the full (infinitive) form, word class and target language equivalents as in:

> **aba kwaba** v.t. allocate, apportion, distribute, divide, share out…(2013: 1)
> **munyisa kumúnyisa** v.t. suckle, breast-feed…(2013: 493)
> **okhela kókhéla** v.t. 1. transfer fire 2. Set alight, ignite, kindle, light…(2013: 579)

Data show verbs with their different infinitive prefixes - (kw-, ku-, or k-) however, users are not given information regarding their application.

4.2.3. Adjectives

In *Concise SiSwati-English/English-SiSwati*, adjectives appear with an initial hyphen without the prefix because they may take a prefix of any class (Rycroft, 1981: ix). Example:

> -bi *adj.* bad, ugly, unpleasant, nasty, wicked, evil. (>-bi (=bhi) after cl.9/10 pfx) (1981:5)
> -dzála *adj.* old, aged, ancient (1981: 19)

Silulu SeSiSwati English-SiSwati/ SiSwati-English Dictionary on the other hand, talks about the word adjective in passing as it is not included on the list of word categories and/or abbreviations used in the dictionary. The term adjective appears in (2010: v), where the compilers are saying "all words belong to one or more of eight classes of words called parts of speech or syntactic categories. These are: nouns, pronoun, **adjective**, verb, adverb, preposition, conjunction and interjective". Other instances are in the extracts: **prize *n***. siphon sekukhutsata lowente kahle; umklomelo; *adj.* lokuhle nalokubalulekile kakhulu (2010: 68); and **–ncane *sib***. is an adjectival qualificative stem meaning: small (in size, quantity, youth or age) (2010: 331). In the explanations of the lemmas **prize** and *–ncane*, the abbreviation 'adj' and phrase 'adjectival qualificative stem' are seen. This indicates that adjectives are in the language yet the dictionary does not include them. The word 'ugly' that Rycroft (1981) presented as noun and or adjective, in this dictionary appears in the English-siSwati part as a qualificative as seen in the following: **ugly *qual***. -bi, -ngabukeki, -etfusako (2010: 85) while in siSwati-English *bi* is presented as a noun and an ideophone. Example:

-bi (bu-) *lib.* ugliness, evil, wickedness ugliness seriousness (according to the varying meanings of the adjectives) (2010: 131)
-bi (si-/ti-) *lib.* rubbish, piece of straw or light rubbish sit lying about the floor or floating in the air or water (2010: 131)
bi *sntk.* of pouring large quantity, as of a sudden feeling of fear, anxiety, nervous apprehension (2010: 131).

Based on the extracts above, it is observed that the first two headwords are used as nouns. In contrast, the last extract indicates its usage as an ideophone. There is no qualificative recorded to show the usage mentioned on the lemma **ugly** above. However, one gathers that *-bi* has varying meanings of the adjectives when reading the information in the brackets but the part of speech called adjective is not in the dictionary.

4.2.4. Possessive Forms, Relatives, Adverbs, Ideophones, Preposition, Conjunction and Interjective

Rycroft (1981) presents possessive, relative, enumerative and quantitative stems with a hyphen as in –ákho poss.st., 2nd P.sg.: your(s) (1981: 1); -kábání poss.pr.st. whose child (or children)?; of what family (cf.-ka-) (1981: 44) while adverbs, ideophones, preposition, conjunction and interjective appear as full words. Example:

boko *ideo.* (of softness) (1981: 5);
búcalú *adv.* (at a distance) 1981: 6)

Similarly, *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* records possessive, relative and qualificative stems with a hyphen while ideophones, preposition, conjunction, interjective and idioms appear as full words. Though the compilers claim that "idioms are not defined in this dictionary" (2010: iv), they are seen in the following extracts:

bhemisa⁴ ssh. tell a story that has happened (2010: 128)
bhunya² ssh. have noisy conversation, full of noise…(2010: 131)

The abbreviation **ssh** is the siSwati short form for idioms based on the information offered in (2010: viii). Adverbs, in the siSwati-English part appear in two ways - as full words and/or start with a hyphen. The dictionary does not say anything about the different presentations.
Evidence:

enhloko *sndz.* on the head, in the head (2010: 185)
eningizimu *sndz.* in the south (2010: 185)
-enkhabave *sndz.* equatorial, in the Equator, in the center (2010: 185)

SiSwati-English Dictionary presents possessive forms, relatives and other parts of speech such as adverbs, ideophones and some adjectives as full words followed by word category plus class of the noun in the case of adjectives (because adjectives can take prefixes from different classes of noun). However, other adjectives start with a hyphen. Example:

âbo poss.pron 1. their: **a** + **bo**: poss.conc.cl.6 + cl.2a: **emanti abo**, their water. 2. its: **a** + **bo**: poss.conc.cl.6 + poss.stem cl.14: **emandla abo** (**tjwala**) its strength (beer) (2013: 1)

-ncane adj. small, tiny (2013: 504)

muphi enum.adj.cl.1 which? **ufuna muphi umuntfu?** Which person ar you looking for?

mvé ideo. scoop: **nawudla ligusha, ukha utsi mve ngalapha ephalishini,** when eating ligusha you scoop some into a ball of porridge (2013: 492)

mẓukwána adv.& conj. on the day that, when (2013: 492)

Here, the adjectives **-ncane** and **muphi** are presented differently. The former starts with a hyphen while the latter is presented as full word. The dictionary also indicates the formation of certain headwords as is observed in: **âbo** poss.pron 1. their: **a** + **bo**: poss.conc.cl.6 + cl.2a: **emanti**. The lemma *âbo* is derived from **a** + **bo**.

Both *Concise SiSwati-English/English-SiSwati* and *SiSwati-English Dictionary* provide illustrative phrases/sentences. In *Concise SiSwati-English/English-SiSwati* they are in both the siSwati-English and English-siSwati). Example:

li-bandla/ema- n. assembly of elders, council. **~ letisebenti:** trade union (1981: 3)

action n. s-ento /t-, **(legal ~)** (1981: 115)

muphi enum.adj.cl.1 which? **ufuna muphi umuntfu?** Which person ar you looking for? (2013, 492)

mvé ideo. scoop: **nawudla ligusha, ukha utsi mve ngalapha ephalishini,** when eating ligusha you scoop some into a ball of porridge (2013: 492)

Concise SiSwati-English/English-SiSwati uses the symbol (**~**) to replace the headword as in **~ letisebenti** and **legal ~** while *SiSwati-English Dictionary* uses the lemmas in sentences as in **ufuna muphi umuntfu?** The two dictionaries also utilise various symbols to show different pronunciations of sounds/letters.

It was observed that *Silulu SeSiSwati English-SiSwati*/*SiSwati-English Dictionary* has some inconsistencies. For instance, certain information and words appear in only one section - either the English-siSwati or siSwati-English - but not in both. This is evident in the following: the abbreviation (*sib*) as in **-dlulile sib.** past *(2010: 170); -funekile¹ sib.* expedient; and *-funekile² sib.* useful (2010: 198) is not on the list of abbreviations provided in the English-siSwati section but it is in the siSwati-English one. Again, the abbreviation, (*ndz*) representing preposition is not appearing anywhere in the dictionary except on the list of abbreviations on (page, viii). Furthermore, a number of abbreviations are seen in the siSwati-English section including (*bun; buny; nhlp; inst; phik; lin; ngw; nkh; sak; sbnj; scl; schs; sif; sjbl; sng; sip; svsn; svsm; siv*/*schs* & *umbt*), (2010: 106). All the listed abbreviations are not in the English-siSwati section and their full forms are in siSwati. There are also instances of forms that refer to the same thing but with different abbreviations throughout the dictionary such as (*sch*) in the English-

siSwati and (*schs*) in siSwati-English both representing *sichasiso* for (qualifica-tive); and the (*shl*) and (*sihl*) for *sihlanganiso* referring to conjunction in English-siSwati and siSwati-English respectively. In the siSwati-English part, abbreviations like (*kphk*), (*sish*), (*snt*) and (*svs*) are seen in the text but are not on the listed abbreviations. Users see them for the first time when looking up words. This makes it hard to tell what they stand for.

Likewise, the following words serve as examples of headwords provided in one section: **goat** *n.* imbuti (2010: 36) is in the English-siSwati and its equivalent is not in the siSwati-English section. Another instance has to do with the word '**technol-ogy**' that is not on the English-siSwati section, yet it is in the siSwati-English sec-tion (**-thekhnoloji**) (2010: 416). Similarly, there is no '**sun**' though it appears un-der the equivalents of **–langa³** (li-/ema-) *lib.* day, daylight, sun, heat of sun (2010: 299). The words '**day**' and '**sun**' in siSwati, refer to *lilanga*, however, since they are regarded different words, each should have been included in its alphabetical sec-tion in case users may want to look up each of them.

Another observation is that words such as "**person**" are missing in the English-siSwati section, instead the words "**personal**" and "**personality**" are included while on the siSwati-English part, there is **–ntfu¹** (umu-/ba-) *lib.* human being, an African, one with human feelings or human person (2010: 348). Again, the word **ingongoni** that appears as the equivalent of December is not in the siSwati-English section, rather **Disemba** is recorded.

4.3. The Effectiveness of the Dictionaries

This section compares the dictionaries based on the views of lexicography stu-dents at the University of Eswatini.

The *Concise SiSwati-English/English-SiSwati* and *SiSwati-English Dictionary* provide detailed linguistic information, aiding users in understanding the siSwati language. However, interviews with lexicography students at the University of Eswatini, revealed that notes before the alphabetical section(s) are seldom read. Students typically go straight to the alphabetical section when searching for words, consulting the dictionary key or usage notes only after failing to locate the word(s) they were looking up. Their rationale is that dictionaries are primarily used to solve specific language problems, leaving little time for unrelated information.

Moreover, these notes are accessible only to users with prior dictionary skills. The study found that learners started appreciating such information only after its significance was emphasised in lexicography classes. Some students admitted abandoning their searches if they could not find a word or information, because they had been taught that knowing the order of the alphabet was enough to suc-cessfully locate words in a dictionary. The fact that there are people who may lack dictionary skills indicates that language teachers should introduce dictionary skills, particularly, for African languages, due to their structural complexity, early in education to help users navigate dictionaries with greater ease.

Though all three dictionaries follow the stem tradition, only the *Concise*

SiSwati-English/English-SiSwati explicitly explains how lemmas are arranged. While this clarification helps users know that headwords may not appear where they were expected, some learners found the presentation confusing. Example:

(kw)-ábabela v.t. allot, allocate to, apportion to…(1981: 1)
um-ábeli /b- n. one who allocates,…distributes (1981: 1)
s-ámbane /t- *n*. ant-bear; hard worker (1981: 1).
lw-ândlé /tilw- *n*. (cl.11) sea (1981: 1).

The presence of various alphabet letters on the same page disoriented users accustomed to English dictionaries, where words under the same letter are grouped together. They were using siSwati dictionary for the first time and were not familiar with the stem tradition. Similarly, learners mentioned that they struggled with the arrangement in *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* and *SiSwati-English Dictionary*. In *SiSwati-English Dictionary*, words like **ahluko sáhlûko**, **táhlûko** which means 'chapter', took learners time to realise that both the singular and plural words were actually presented. The presentation was somehow unclear. The absence of dictionary guidance in *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary* where instructions appear only in the siSwati-English section disadvantages those who cannot read siSwati, leaving them unaware of how headwords are structured. This undermines the dictionary's claim "basic vocabulary needs of those who want to achieve English and siSwati language proficiency in reading, writing and speaking [is included]", (Silulu SeSiSwati Lexicography Unit *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary*, 2010: iv), as users may miss essential words due to unfamiliar arrangement.

It was further revealed that the stem tradition made it difficult for some users find information easily. Second language learners whose languages were written disjunctively indicated that they had challenges locating words in the dictionaries. They had difficulty identifying parts of the word/sentence. In siSwati, entire sentences can constitute single word in utterances like *Uyagijima* (S/he is running) and *bayahleka* (They are laughing), making it hard to isolate stems. As Prinsloo (2013) notes, conjunctively written languages such as isiZulu, isiNdebele, isiXhosa, and siSwati require extensive linguistic knowledge to identify the stem for lookup. This is due to the complexity of the structure of these languages plus the arrangement of words in terms of stem. It may not be easy for the majority of non-native speakers of siSwati to find what they are looking up if they do not know which part of the word constitutes a stem.

Even some native speakers of siSwati encountered challenges. Until 2017, siSwati was not compulsory in schools. Students could opt for siSwati, French and Portuguese. For instance, in public high schools, learners were free to learn siSwati as a first language (if one was a Swazi) or take French or Portuguese as second language; and in private high schools, students choose between siSwati and French. According to UNICEF (2016), the language-in-education policy of Swa-

ziland gives teachers the right and freedom to use siSwati as a medium of instruction to the first four grades of school if they see that learners have difficulty understanding what is taught. This shows that not all siSwati native speakers are proficient in siSwati. Data revealed that students who were siSwati speakers were classified into two categories, those who learned siSwati as a subject and those who did not at high school. Students who learned siSwati were familiar with siSwati prefixes and stems. However, it was their first experience to use dictionaries arranged in terms of stems since siSwati dictionaries were not used in schools. Others claimed that they had seen the dictionaries but never used them. On the other hand, those who did not take siSwati as a subject were not familiar with the prefixes and stems of the language. It was also their first time to utilise the siSwati dictionaries. As a result, locating headwords was difficult because they were looking up words under the first letter of the word not stem. It was also revealed that even after knowing that siSwati dictionaries arranged words in terms of stems, learners tended to look for the very first letter of the words. For example, one student failed to locate *lilanga* meaning "day/sun" because she forgot about stem arrangement and was searching *lilanga* instead of *–langa*. This highlights how stem-based dictionaries may hinder rather than aid users unfamiliar with siSwati morphology. Therefore, the researcher believes that the three dictionaries under investigation are not transferring knowledge easily and are only partially promoting effective communication across boundaries.

Regarding the presentation of verbs, learners had mixed views. The majority of siSwati speakers preferred *Silulu SeSiSwati English-SiSwati*/ *SiSwati-English Dictionary* while few Emaswati and all the second language learners favoured *Concise SiSwati-English/English-SiSwati*. *SiSwati-English Dictionary* was considered the most difficult to follow.

Among the bidirectional dictionaries, *Silulu SeSiSwati English-SiSwati*/ *SiSwati-English Dictionary* exhibited instances of inconsistencies, imbalance, and missing words and information compared to *Concise SiSwati-English/English-SiSwati*. This was evident when looking at abbreviations and words/information appearing only in one section. Second language learners mentioned that they had challenges accessing information written in siSwati (notes on the siSwati-English section). This shows that the dictionary does not fully assist users to access all the information it provides. For example, English-siSwati section spans pages 1 to 96, while the siSwati-English section covers pages 115 to 452, with intervening pages dedicated to images and siSwati language notes 97-114. Rycroft's dictionary also shows disparity, with siSwati-English covering 111 pages and English-Siswati only 74. Based on this, there is imbalance between the sections. Moreover, non-siSwati learners were likely to encounter challenges because siSwati-English section in *Silulu SeSiSwati English-SiSwati*/ *SiSwati-English Dictionary* contains information missing in the English-siSwati as mentioned earlier that the abbreviations (*bun*; *buny*; *nhlp*; *inst*; *phik*; *lin*; *ngw*; *nkh*; *sak*; *sbnj*; *scl*; *schs*; *sif*; *sjbl*; *sng*; *sip*; *svsn*; *svsm*; *siv*/ *schs* & *umbt*), (2010: 106) were only offered in the siSwati-English. It

looks like the compilers assumed that all users already knew siSwati. In Addition, some students could not find words they were looking up such as "**sun**" and "**person**" instead they found "**personal**" and "**personality**". Data also revealed that '**goat**' was in the English-siSwati and its equivalent *imbuti* was not in the siSwati-English section; "**technology**" was not in the English-siSwati section, yet it was in the siSwati-English section (**-thekhnoloji**). This further limits the dictionary's utility, contradicting its mission to promote multilingualism and serve as a tool for beginners to intermediate resource. The rationale is users who may know the English word and needs to look up the siSwati equivalent or vice versa cannot find it in the dictionary if such a word is not presented in the two sections. The intended groups (school children from their entrance into high school, to the final classes & those who want to achieve English and siSwati language proficiency) may be disadvantaged. Bidirectional dictionaries are intended to assist users locate words in either of the two languages. They have to assist users who may know a word in one language and may want to find its equivalent in the other language.

Of the three dictionaries, the *Concise SiSwati-English/English-SiSwati Dictionary* was considered the best for its clear user guidance and presentation of entries, followed by *Silulu SeSiSwati English-SiSwati/SiSwati-English Dictionary*, with *SiSwati-SiSwati Dictionary* being the least favoured. However, the majority of students believed that the dictionaries were not user-friendly since they could not locate words easily. According to Prinsloo and De Schryver (1999), modern dictionaries are judged by the success with which their users are able to find the sought information in the sections they expect to find it. They stipulate that:

The modern trend in lexicography is…to compile very practical and extremely user-friendly dictionaries. In simple terms this means that the lexicographer has to include those words which are most likely to be consulted by the target user and to lemmatize them in a user-friendly way (1999: 259).

It looks like the three dictionaries were mainly created for language and linguistic scholars and not for everyday learners, echoing Awak's (1990) critique that some modern African lexicographic works have been compiled primarily for scholarly interest and not for the needs of ordinary Africans. This indicates that the lexicographers of the three dictionaries appear to have overlooked the users' varying dictionary skills. Prinsloo (2013) emphasises that lemmatisation should involve both the compilers and users because the lexicographer needs to decide on a strategy which is understood by users. It is recommended that a new dictionary be created to serve the general public, wherein the contents of existing dictionaries can be reclassified. This is seen in other languages, such as Sesotho, where the *Sesuto-English Dictionary* and *Southern-Sotho-English Dictionary* contain the same content but use different lemmatisation. In the former, words are in ordinary alphabetical order; in the latter, they are organised by stems. According to Paroz (1950), the main difference between Mabille and Dieterlen's *Sesuto-English Dictionary* and *Southern-Sotho-English Dictionary* (by Paroz) lies in the classification of words. These dictionaries meet the needs of diverse users

with varying levels of dictionary expertise, allowing each individual to select a dictionary that best suits their preferences.

In general, the study determines that some people who may wish to learn other African languages may not find it easy to do so due to their structures and arrangement of words in some of the existing dictionaries. It is challenging to locate words if lemmas are arranged according to their stems especially because a non-native speaker and siSwati learners who did not take siSwati as a subject in high school may not be able to identify the stem. Second language learners may also not know the spelling of the word in question. The researcher believes that improvement of the three dictionaries is likely to benefit users of all groups and to develop siSwati language.

5. Conclusion

The study showed the different ways in which information is presented in the siSwati bilingual dictionaries in question. Words are arranged according to the first letter of the stem in all three dictionaries. The study further revealed that all three dictionaries employ distinct arrangements for headwords and information, each following its own presentation style. Furthermore, in *Silulu SesiSwati English-Siswati*/ *SiSwati-English Dictionary*, certain words and details appear in only one section, either English-siSwati or siSwati-English, but not both. Again, some dictionaries lack user guidance on how to access information effectively. This made it difficult for some users to locate information easily. It is not easy to identify stems in conjunctively written languages such as the Nguni languages to which siSwati belong. The study concludes that these dictionaries are not user-friendly, particularly for users with limited dictionary skills.

6. Recommendations

The study indicates that dictionaries are seen as keys to facilitate communication and interaction. Without dictionaries, the acquisition of knowledge and language is somehow difficult. Therefore, the study recommends that teachers should introduce learners to dictionaries of African languages at an earlier stage of their learning. SiSwati lexicographers should revise the existing dictionaries to better accommodate the needs of diverse user groups. They can also produce a new dictionary in which the contents of the existing dictionaries could be reclassified by adopting the word tradition. The word tradition seems to be helping users of the siSwati monolingual dictionary *Umphandza Sichazamagama sesiSwati*.

Conflicts of Interest

The author declares no conflicts of interest regarding the publication of this paper.

References

Alberts, M. (1999). The Importance of a Business Plan When Planning a Lexicographical Project. *Lexikos, 9,* 188-197. https://doi.org/10.5788/9-1-922

Atkins, B. T. S., & Varantola, K. (2008). Monitoring Dictionary Use. In T. Fontenelle (Ed.), *Practical Lexicography: A Reader* (pp. 337-375). Oxford University Press. https://doi.org/10.1093/oso/9780199292332.003.0023

Awak, M. K. (1990). Historical Background, with Special Reference to Western Africa. In: R. R. K. Hartmann (Ed.), *Lexicography in Africa* (pp. 8-18). Exeter University Press.

Busane, M. (1990). Lexicography in Central Africa: The User-Perspective, with Special Reference to Zaire. In R. R. K. Hartmann (Ed.), *Lexicography in Africa* (pp. 19-35). Exeter University Press.

Chabata, E. (2007). The African Languages Research Institute: A Milestone in the Development of the Zimbabwean Languages. *Lexikos, 17,* 278-291. https://doi.org/10.5788/17-0-1172

Chabata, E., & Nkomo, D. (2010). The Utilisation of Outer Texts in the Practical Lexicography of African Languages. *Lexikos, 20,* 73-91. https://doi.org/10.4314/lex.v20i1.62685

Gouws, R. H. (2005). African Lexicography. In K. Brown (Ed.), *Encyclopedia of Language & Linguistics* (pp. 95-101). Elsevier. https://doi.org/10.1016/b0-08-044854-2/04336-4

Gouws, R. H., & Prinsloo, D. J. (2005). *Principles and Practice of South African Lexicography.* Sun Press.

Makoni, S., & Mashiri, P. (2007). Critical Historiography: Does Language Planning in Africa Need a Construct of Language as Part of Its Theoretical Apparatus? In S. Makoni, & A. Pennycook (Eds.), *Disinventing and Reconstituting Languages* (pp. 62-89). Multilingual Matters. https://doi.org/10.2307/jj.27939678.7

Nkomo, D. (2008). *Towards a Theoretical Model for LSP Lexicography in Ndebele with Special Reference to a Ndebele Dictionary of Linguistics and Literary Terms.* Ph.D. Thesis, Stellenbosch University.

Otlogetswe, T. J. (2013). Introducing *tlhalosi Ya Medi Ya Setswana*: The Design and Compilation of a Monolingual Setswana Dictionary. *Lexikos, 23,* 532-547. https://doi.org/10.5788/23-1-1228

Paroz, R. A. (1950). *Southern Sotho-English Dictionary.* Morija Sesuto Book Depot.

Prinsloo, D. J. (2013). Issues in Compiling Dictionaries for African Languages. In J. Howard (Ed.), *The Bloomsbury Companion to Lexicography* (pp. 232-255). Bloomsbury Academy.

Prinsloo, D. J., & de Schryver, G. (1999). The Lemmatization of Nouns in African Languages with Special Reference to Sepedi and Cilubà. *South African Journal of African Languages, 19,* 258-275. https://doi.org/10.1080/02572117.1999.10587405

Rycroft, D. K. (1981). *Concise SiSwati-English/English-SiSwati Dictionary.* J.L. van Schaik.

Sibanda, E. S., & Mthembu, E. T. (1999). *Sihlatiya SiSwati.* Macmillan Swaziland National Publishing.

Silulu SeSiSwati Lexicography Unit (2010). *Silulu SeSiSwati English-SiSwati Dictionary.* Macmillan Boleswa Publishers.

UNICEF (2016). *Swaziland—The Impact of Language Policy and Practice on Children's Learning: Evidence from Eastern and Southern Africa.* https://www.unicef.org/esa/sites/unicef.org.esa/files/2018-09/UNICEF-2016-Language-and-Learning-FullReport.pdf

Whelton, M. J., & Mphungane, S. D. B. (2013). *SiSwati-English Dictionary.* RedOystor Media.