

**THE XITSONGA MURMURED SPEECH SOUNDS
AND THEIR REPRESENTATIONS IN THE XITSONGA
ORTHOGRAPHY**

by

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DEDICATION

I dedicate this study to you my mother, Ommette Thimarah, and to my late father, Louis Malashi, for having brought me to this planet earth and nurtured me through thick and thin until I became independent.

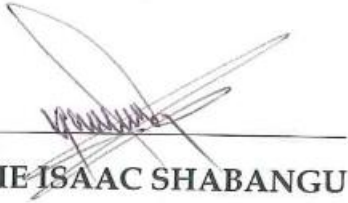
I also dedicate this study to you my better half, wife and friend, Khensani “Makhadzi” Gladys, for having tenaciously anchored me in all my endeavours to climb the ladder of life to the apex despite all odds.

You all did a sterling job that I am grateful for. I am who I am because of your parental nurturing and your matrimonial support. May the good Lord bountifully bless you and give you more returns and many more happy and healthy years to come.

DECLARATION

I, the undersigned, declare that this dissertation submitted for the Degree of Master of Arts (Linguistics) at the University of Venda, is my own work in design and execution and has not been previously submitted by me at this or any other university for any degree, and that all reference material contained therein has been duly acknowledged.

Signed by



SAKIE ISAAC SHABANGU

12.06.2016

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ABSTRACT

Orthographic symbols of languages represent specific speech sounds with their specific phonetic qualities. This research aimed at analysing orthographic representations of murmured speech sounds in the Xitsonga orthography. The qualitative approach was employed to examine the production of murmured speech sounds and their orthographic representations in Xitsonga. The analysis was based on data collected from interviews with speakers of the Xitsonga language, Xitsonga educators and lecturers who are themselves Xitsonga-speaking, Xitsonga authors and Xitsonga subject specialists, and also from existing literature by Xitsonga authors and language scholars. The study made recommendations that will help the development and revitalisation of the Xitsonga language and also benefit the speakers of the language as well as scholars and linguists.

Keywords:

Basic speech sounds, bilabial and explosive consonants, complementary features of explosive consonants, nasal compounds, phonemes, phonetics.

CHAPTER 1

INTRODUCTION AND BACKGROUND TO THE STUDY

1.1 INTRODUCTION

This study was motivated by observations made by several interested parties, like Harries (1987) and Mthetwa (2013), in the study and development of indigenous languages. Harries (1987), on one hand, makes interesting observations about the origin and development of African languages and their European counterparts. He observes that, while the origin and development of European languages has been carefully studied, the history of the delineation and growth of African languages has sadly been neglected. He further postulates that linguistic studies in African languages have concentrated on morphology and syntax, while their history and development have been neglected to the murky realm of glottochronology and the search for hypothetical, ancestral language forms.

On the other hand, Mthetwa (2013) in her booklet, *The Xitsonga Language Development: The Missing Link in Writing the Xitsonga Language In the 21st Century*, postulates that although there has been “development” in the orthography of the Xitsonga language since it was reduced into writing in the 1800s, there still exists inconsistencies in the writing of the Xitsonga language in the 21st century. She argues that Xitsonga words, particularly dialectical and borrowed ones, are not accurately or appropriately captured in writing. She further argues that if the Xitsonga language fails to write some dialectical words correctly, it then suggests that Xitsonga is not yet fully scientific. Words should be captured correctly as they sound, whether they are considered formal or colloquial or borrowed from other indigenous languages.

In line with Harries and Mthetwas’ observations, this study focuses on the orthography of the Xitsonga murmured speech sounds and their representations, in order to check whether these speech sounds have been properly represented in their

practical script. Orthography, as defined by Ziervogel (1967a), is a system of symbols used to represent speech sounds in a particular language, and each language has its own practical orthography. In other words, orthographic symbols or letters or graphemes of a specific language represent specific speech sounds with their specific phonetic qualities. The orthography of each speech sound is phonemic. This means that there should be a one-to-one correspondence between each phoneme and the symbolisation of that phoneme.

In Xitsonga, for example, the orthographic representation of the speech sound <v> in the word “vona” (to see), which is described phonetically as a *voiced bilabial fricative*, can only be represented by the symbol [β] phonetically and nothing else. This grapheme <v> is phonemic in the sense that it has the power to completely change the meaning of a word if it is replaced by another grapheme. For example, if the grapheme <v> is replaced by <t>, the word becomes “tona” and the meaning of the original word completely changes as “tona” means “them” instead of the original meaning of “to see”.

As a general principle, sounds which contrast in a language should be represented with different symbols. That is, if separate *phonemes* are established, such as /v/ and /t/ based on a contrasting word set such as “vona” and “tona”, these require separate *graphemes* <v> and <l> respectively in the orthography. However, there seems to be confusion in the representation of certain murmured speech sounds in Xitsonga. It is then clear that there is a mismatch or no one-to-one correspondence between certain speech sounds produced with a murmur and their practical Xitsonga orthography. As a result of these misrepresentations, the meanings of some words with murmured speech sounds are compromised. This has led to inconsistencies in the writing of Xitsonga documents, which, amongst others, include literature books, language manuals, official documents and so forth. For example, in most of the existing Xitsonga literature, a *bilabial explosive* [b], and a *murmured bilabial explosive* [bfi] are represented by the same grapheme or symbol as in <bava> (father) and <bava> (bitter). This is a mismatch as, according to

Cahill and Karan (2008), no two speech sounds may be represented by the same symbol in their orthographic representations.

1.2 BACKGROUND TO THE PROBLEM

There are several reasons that may have led to this problem of mismatching some of the murmured Xitsonga speech sounds with their Xitsonga practical orthography. Such reasons may range from the political, religious, social spectra and many other factors which are discussed in detail in the ensuing paragraphs. One major reason for orthographically misrepresenting some of the speech sounds in Xitsonga, particularly the murmured ones, could be that the people who came to Africa in the colonial years of underdevelopment, never took cognisance of the people of Africa and their respective languages.

According to Harries (1987), one of the first reactions of European explorers and colonists, on being confronted by a world that was wholly novel and outside the bounds of their experience, was to reorder the world around them according to their belief system. This entailed imposing an intellectual grid on the unfamiliar, in order to restructure it in a more comprehensible way. Linguistic and other borders and boundaries accepted in Europe as scientific, and hence incontrovertible givens, were applied to Africa. The reasons for the emergence of these historically discrete categories were explained in terms of European concepts of cause and origin. Unable to break out of the conceptual realm of their age, linguists sought to “discover” clearly discernible languages that were bound by regularities of grammar and vocabulary and rooted in history. The world view of these experts was a product of a specific system of knowledge rather than a basic self-interest (Harries (1987)).

A language that would become common to the people of one extended region had to be forged out of disparate linguistic forms. As is revealed by the debate within the Swiss Mission over the delineation and codification of separate Xirhonga and Xitsonga languages, the criteria determining the boundaries of language and dialect were subjective rather than scientific. Linguistic borders were more a product of the

missionaries' late 19th century European world view and belief system than of any objective criteria. The construction of the early Xitsonga language by the Swiss missionaries, thus, has many parallels with other missionary-devised *lingua franca* like Union Ibo and Shona. The intention of the missionaries was not to create a regional cultural marker that could serve as a vehicle of ethnic unity and consciousness, but they sought to neutralise a growing class and national consciousness and a local elite, trained in European linguistic discourse, who sought to mobilise a political following by stressing cultural characteristics (Harries, 1987).

According to Leshota (2014), the undermining of the inhabitants of Africa in general and South Africa in particular was due to the Victorian myth which perceived Africa as a Dark Continent. Africa was seen as an unexplored and unknown region supposed to be an elevated desert. According to the Victorian mentality, non-European people, especially Africans, were inferior and could not be considered as men in the general sense. At some point, Africans were literally hunted down by the colonisers and even exchanged for livestock – an indication that African life was considered to be worth far less than that of an ox or cow (Freedom Park 2011:14). Leshota (2014) aptly posits that underlying this myth was the predominant thought that Africa was an embodiment of savagery, intractable ignorance, and callous barbarity, and an epicentre of evil.

This misnomer shaped the thinking of the colonisers particularly those who subscribed to the Victorian agenda. In this regard, Balia (2007) postulates that popular opinion amongst the settlers was that Africa was characterised by barren plains without inhabitants, rivers without water, and birds without song. This notion is supported by Phaswana (2000) who argues that when the Dutch settlers invaded South Africa in the mid-seventeenth century, they did not recognise the indigenous languages spoken by the inhabitants of the country. Jan van Riebeeck, for example, who was the first Commander of the Dutch East India Company, referred to the Khoisan people, who were then dubbed Bushmen and Hottentots, as “a dull, stupid, lazy, stinking nation” (Marks 1972).

Thus, instead of these settlers learning and studying the indigenous languages for communication and business, they used interpreters who happened to be the indigenous people who, over the years, had acquired some Dutch or English (Phaswana 2000). They considered the indigenous languages as too inferior to speak and were considered unworthy for use in official circles. The indigenous languages were regarded as lacking the capacity for expressing ideas in official domains. Consequently, these indigenous languages were largely denied use in these areas, with their perceived unworthiness increasing year after year as frontiers of knowledge expanded.

This observation was particularly apt for Portuguese and French colonies that saw their presence in Africa as a “civilising mission”. As a consequence, indigenous African languages and cultures were deliberately trampled on as if they did not exist. They were considered unfit for use in a civilised community, especially as far as officialdom was concerned. The undermining of indigenous languages continued even when the British colonisers annexed South Africa. They too, did not recognise indigenous languages. The British Anglicisation policy, for example, elevated English to the level of official language, while indigenous languages, together with Afrikaans, were relegated to an inferior status (Phaswana 2000).

Educationally, the indigenous languages were designated to function only at the lower levels of education or during the first few years of primary education. As a result, African languages were stigmatised in the educational domain as being incapable of functioning beyond this low level. This lack of use over the years has resulted in lack of growth, lack of development and lack of challenges in the indigenous languages themselves.

Another reason that may have led to the Xitsonga murmured speech sounds being misrepresented in their practical orthography is that the Xitsonga language, just like the other indigenous languages in South Africa and perhaps the African continent as a whole, was reduced to writing mainly by missionaries who were themselves not the speakers of the language and over and above, were not trained linguists (Cluver,

1983). It was only when the missionaries from various European countries came that certain indigenous languages spoken in the Southern part of Africa were merely transcribed. Doke and Cole (1961) point out that the period commencing about 1830 became a period of intensive monograph study of the Bantu languages, a period in which almost all the research and recording work was done by the missionaries, to whom Bantu literature owes an un-repayable debt.

The orthography development of the Xitsonga language was mainly based on foreign linguists like the so-called experts of the day – Lepsius in Berlin, and de Saussure in Geneva – whose ears had never had an opportunity of hearing the simplest speech sound pronounced by a Xitsonga native speaker. According to Cahill and Karan (2008), the orthography development of a language should be based on native speaker perception and not on foreign influence because phonemic analysis of a language is foundational; it is the beginning of orthography design. Cahill and Karan (2008) further argue that, from a pragmatic point of view, there are at least two, and possibly more, levels of representation which need to be considered in orthography development. One such model is lexical phonology which is determined by looking at the output of the lexical level of phonology. Different types of phonological processes result in given surface forms and, because of this, an outsider or non-speaker of the language can only perceive the surface form (what can be called the “etic” view) while the native speakers can be aware of some of the phonological processes that take place.

One other reason that could have led to the misrepresentation of certain Xitsonga speech sounds, particularly the murmured ones, is that the orthography developers themselves were not language specialists. During the late eighteenth and early nineteenth centuries, there was a wave of new Protestant Mission Societies that sprang alongside the fervent evangelical revivals that swept Western Europe and North America. These Protestant Mission Societies and Evangelical Revivals aimed at bringing the entire world to Christ, particularly the African continent, which was perceived as the Dark Continent. It was, therefore, prestigious and honourable in the eyes of the protestant groups to come and spread the word of God in this

unexplored and unknown region. As a result of this heroic prestige attached to missionary work, many volunteers came to the fore and enlisted with the Protestant Mission Societies and Evangelical Revivals, in order to come and convert the “heathens” of this “Dark Continent”.

According to Kirkaldy (2005), many of these volunteers were from the lower middle classes and most of them had no higher educational qualifications. As a result of their lack of proper educational qualifications, the volunteers underwent rigorous training before they could be deployed by the different societies and revivals to start missionary work to the outside world. The candidates or volunteers were engaged in a process of cross-cultural upward social mobility, in order to prepare and strengthen them for the task that awaited them. The training consisted of Latin, Greek, classical literature, philosophy, as well as theological training which instilled in them a desire for “moral conquests... framed in the great idea of duty towards a just and holy God, in whose eyes sin in its very form is abominable.” Through this training, they became authoritative and paternalistic figures (Kirkaldy 2005). However, they were far from linguistic experts to develop a sound orthography of a foreign language like Xitsonga.

Although Ernest Creux and Paul Berthoud are known to be the pioneers of putting Xitsonga into writing, they are in actual fact not the first. Bill and Masunga (1983) argue that there are other people along the East African coast, whom they call “travellers” in their book *Mbita ya Vutivi*, who made up simple lists or “vocabularies” of the languages they encountered. Bill and Masunga (1983) mention such first travellers as Fernandes and dos Santos; whose fragments of their written Xitsonga words are found in the Portuguese records.

Bill and Masunga (1983) further quote Dr W.M. Peters’ list on which another traveller called W.H.I Bleek relied for the “vocabulary of the language of Lourenzo-Marques” which formed the basis of his (Bleek) material titled *The Language of Mosambique* published in 1856 for the Delagoa Bay area. In his material, Bleek also quotes from Captain William White’s short vocabulary of 140 words called *Journal of*

a voyage from Madras to Colombo and Delagoa Bay published in 1800. It is said that Captain William White took great pains to collect words from his informants by pointing at things and the informants would then give him the names or concepts in Xitsonga while he recorded them in his journal. In doing so, White would employ all kinds of letter or symbol combinations which were used for writing English, his mother tongue. The words were recorded in a very strange orthography and Bleek describes William White's vocabulary list as "greatly inferior" and gives the following examples of White's words to prove his point: pig > **gulloway* (nguluve), water > **matee* (mati), and stone > **ribgea* (ribye).

Again in the year 1835, a much bigger *Delagoa Bay Vocabulary* was published by another sea-captain, Thomas Boteler, in his *Narrative of a Voyage of Discovery to Africa and Arabia, from 1821-1826* (Doke & Cole 1961). Although Boteler was most conscientious in his attempt to record the words, the results he achieved amply justified the subsequent growth of the science of phonetics in dealing with the recording of hitherto unstudied Native languages. Boteler's orthographic recording of some of the Xitsonga words are *mônohncooloo* <munhu nkulu> (a big man), *scheewoněywoněy* <xivonivoni> (looking glasses), *wane oniey glahnahnong?* <wena u na ndlala naa?> (Are you hungry?). This really shows that the Xitsonga orthography indeed comes from very far and the missionaries have indeed done an un-repayable job as Doke and Cole alluded (1961).

The issue of non-speakers of the Xitsonga language corrupting the speech sounds they hear from Xitsonga native speakers might also have played a role in the misrepresentation of certain Xitsonga speech sounds, particularly the murmured ones. This is shown by the present names of towns, rivers, mountains, and things of national interest whose orthography has been corrupted in their writing. Names such as "Mesina" for Musina, "Letaba" for Ritavi, "Letsitele" for Ricindzele, "Levubu" for Rivubye, just to name but a few, are observed. Other shocking corrupted spellings of words are the following by White, one of the travellers along the coast of Delogo Bay: **gulloway* for *nguluve* (pig), **matee* for *mati* (water), and **ribgea* for *ribye* (stone). Another example which shows the corruption of Xitsonga

words or speech sounds is the orthographic recordings of the Xitsonga *Delagoa Bay Vocabulary* published by a sea-captain, Thomas Boteler, in 1835: **mônohncoolo* for *munhu nkulu* (a big man), **scheewoněywoněy* for *xivonivoni* (looking glasses).

According to Bill and Masunga (1983), besides these travellers, there were other Swiss missionaries who were based in Mozambique. It would seem that these missionaries who were working in Mozambique were not in complete agreement with the orthography developed by their colleagues in the Transvaal, particularly with regard to the linguistic status of Xirhonga (a language spoken in Mozambique which is similar to Xitsonga) and Xitsonga. As a result of this difference of opinion, the missionaries had a very serious problem of developing the Xitsonga orthography. It took them years to realise that Xirhonga and Xitsonga were, in fact, linguistically classifiable as different languages rather than different dialects of the same language. In fact, it took them almost eight years to complete the *Buku ya Tsikwembo Tsin'we na Tisimo ta hlengeletano* (Bill & Masunga 1983).

The Sesotho language may have also influenced the mismatching of murmured sounds in the Xitsonga language. When the Paris Evangelical Missionary Society was established in the late seventeenth century in Lausanne, in Switzerland, Ernest Creux and Paul Berthoud were sent to South Africa (to Lesotho to be precise) after becoming members of the Free Church of Vaud. They were both deployed to this region as collaborators of the Paris Evangelical Missionary Society (Macagno 2009). Unlike the settlers, the missionaries learned and studied the languages of the people amongst whom they worked so that they could easily convert them to Christianity when they preached to them in their own languages. They further developed the orthographies of the indigenous languages so that they could translate the Bible for the people to enable them to read and also to convert them to Christianity easily. They believed that the people should be able to read, in order to appreciate the message of the Bible.

Thus, on their arrival in Lesotho, Ernest Creux and Paul Berthoud started learning Sesotho in preparation of their missionary work amongst the Sesotho speakers in the

Northern Transvaal whom they thought they would work amongst after their graduation in Morija, Lesotho. In 1873, Paul Berthoud left Rev. Ernest Creux in Lesotho and made an exploratory journey to the Northern Transvaal together with Rev. Adolphe Mabille and two Basotho evangelists to explore the feasibility of establishing a mission station in the vicinity of Sekhukhuneland. When they arrived in Sekhukhuneland, they did not find any joy as Chief Sekhukhune had lost all trust in all missionary work and did not permit them to work amongst his people. On the advice of some of the Bapedi people who had already been converted to Christianity, Rev. Creux and his entourage proceeded north to the Soutpansberg area where they heard of the existence of the Vatsonga people who had not heard about Christianity.

In August of that year, they arrived at the fortress of João Albasini (Bill & Masunga 1983). Because Revs. Schweltnus and Beuster of the Berlin Mission had already started missionary work amongst the Venda people in the nearby areas, Albasini and the other White settlers were in favour of Paul Berthoud's idea of establishing missionary work amongst the Magwamba (Vatsonga) living in the plains below the Soutpansberg. After experiencing the warm welcome offered by Albasini and the German Missionaries, and becoming aware of the favourable prospects for mission work in the area, Paul Berthoud bought the Klipfontein farm belonging to a Scotsman named John Watt to start their missionary work (Bill & Masunga 1983). The missionaries later named the farm Valdezia in honour of their beloved canton of Vaud in Switzerland (Halala & Mtebule 2012). After buying the farm, he settled the two evangelists on the farm and returned to Lesotho. Two years later, in 1875, Berthoud journeyed back to the Soutpansberg area with his family, together with Rev. Ernest Creux and his family and the family of evangelist Eliakim Matlanyane and Asser Segagabane (Halala & Mtebule 2012).

Bill and Masunga (1983) further indicate that, as soon as the missionary families were settled in their simple shacks at the Klipfontein farm, Berthoud and Creux, wasted no time in beginning the task of translating portions of the Sesotho Bible into Xitsonga for their catechumens to read in the evening gatherings. They published

this translated version of the Sesotho Bible in 1883 and called it *Buku ya Tšikwembo Tšin'we na Tisimo ta Hlengeletano* or simply *Buku*. Another book, a reader this time, entitled *Dyonda ko hlaya*, followed in 1884. This was a forerunner to the series *Šipele ša Šigwamba*, which were published in 1891. In developing these books, the Swiss missionaries wanted to develop the culture of reading amongst the people they aimed to convert to Christianity.

The missionaries — as they had been taught from birth in their home country to read in a way that allowed them to form their own judgements and opinions on the word of God and His disciples — believed that reading was a practice that encouraged introspection and meditation upon sin, and the consequent need for personal salvation and individual conversion. Instead of having texts explained by a caste of priests, they saw reading as a personal, interpretive act, and as a means of entering into direct contact with God. The missionaries ruminated on the importance of literacy as a proselytising agent and by developing the Xitsonga orthography, they wanted to teach their “primitive” congregants to read religious texts in their own language, in order to shape their perceptions and cultural practices. The missionaries strongly believed that literacy, particularly the reading of the word of God, would revolutionise the natives’ intellectual habits and mental equipment. This would create nothing less than a new “society in the heart of the tribal bantu” and lead them to a “new people emerging from darkness” as one of their intellectual doyens, the missionary anthropologist, Henry-Alexandra Junod once wrote. Reading was, therefore, a foundation of faith (Harries 2001:407). Thus, enculcating the culture of reading to the “heathens” was the sole aim of the missionaries. They vigorously and rigorously embarked upon the development of the orthographies of the indigenous languages and ultimately developed reading materials.

Since Berthoud and Creux were trained in Lesotho, in order to convert the Bapedi people of the Transvaal into Christianity, and since the *Buku* was translated from the existing Sesotho Bible, the Sesotho language may have had a profound influence into the orthography of the Xitsonga language. The influence might also have been compounded by the fact that their helpers, the two Basotho nationals, the two

evangelists Eliakim Matlanyane and Asser Segagabane, their six ox-wagon drivers, and a small boy, were Sesotho speaking. This Sesotho influence can be the major reason why the orthographic misrepresentation of certain Xitsonga speech sounds particularly the murmured speech sounds as murmured speech sounds such as [b̥h], [d̥h] and [g̥h] are not there in the Sesotho language. However, aspirated speech sounds like [ph, [th] and [kh], which are, in actual fact, counterparts of murmured sounds [b̥h], [d̥h] and [g̥h] do occur also in the Sesotho language as they do in the Xitsonga language. Because the missionaries were not linguists, they did not realise this crucial difference between the Xitsonga and the Sesotho languages. They hurriedly mixed the two languages in their creation of the Xitsonga orthography.

Although this study is concerned with murmured speech sounds, perhaps, for the sake of more clarity on how the Xitsonga orthography was influenced by the Sesotho language, it is ideal to give more examples which are murmured. In Sesotho, the front vowel /e/ can represent four different front vowels. It can represent the high front vowel [i] as in <tshela> (to cross over), it can represent the mid-high front vowel [i̠] as in <tshedisa> (to humiliate), it can represent the mid-low front vowel [e] as in <emisa> (to make stop) and it can also represent the central vowel [ɛ] as in <ema> (to stop). Because of this complex overrepresentation or underrepresentation of the high front vowel [i], the mid-high front vowel [i̠], the mid-low front vowel [e] and the central vowel [ɛ], the missionaries misconstrued the Sesotho mid-low front vowel [e] to represent the high front vowel [i] in Xitsonga. That is why names like James in the Bible are spelt Yohanē instead of Yohanī. Thus, the Sesotho language has greatly influenced the transcription of the Xitsonga language.

Another reason that may have caused the problem of misrepresentations of some murmured speech sounds could be that contributions made by the Xitsonga-speaking people in the development of the Xitsonga language were in general undermined. Harries (2001) posits that, in 1893, Robert Mashaba, a migrant worker educated at Lovedale in the Eastern Cape, produced a 31-page wordlist in the language spoken around Delagoa Bay (Xirhonga). Harries further posits that Mashaba also produced, with the help of the Lovedale Press, a *First* and then a

Second Xirhonga Reader, and a collection of hymns in Xirhonga. The popularity of this language and Mashaba's works resulted in the Swiss replacing Xigwamba with Xirhonga as the standard vernacular used by the Mission on the coastal plain south of the Nkomati River. However, it also led Junod subjecting Mashaba's linguistic work to a careful criticism. The missionary disapproved of the Lovedale graduate's unorthodox orthography, and thus firmly condemned the oral forms of expression that structured Mashaba's writing. In this sense, Junod perceived what could be characterised as writing as the product of individuals, like Mashaba, who were unqualified to discipline and train the Bantu mind (Harries 2001).

The undermining of the contributions made by the Black people, in general, was also evident when the Swiss missionaries, who worked around Valdezia, never recognised the contributions made by the teacher-evangelists in the introduction and expansion of the religious works. Halala and Mtebule (2013) argue that, immediately after the establishment of the Valdezia station, the Basotho evangelist-educators near the Southpansberg established the following stations: Barcelona established by evangelist Betuel Ralitau, Barota by evangelist Yeremia and Eka Njhakanjhaka (now Elim) by evangelist Jonathan Molepo.

Citing Cuendet, Halala and Mtebule (2013) argue that the station at Barcelona, under evangelist Ralitau, thrived and by 1878, nine people were baptised and three couples were married in church. It was evident that these evangelists were firmly entrenched in Christianity, to the extent that they were playing Western type drums just like the missionaries. Halala and Mtebule (2013) posit that, despite all these efforts, the missionaries did not value the contributions of these African teacher-evangelists in educational and religious matters which, amongst others, included the orthography of the Xitsonga language. This was not the case with the pioneer White missionaries who were looked upon as martyrs by the church both in South Africa and in Switzerland.

The belief that Black people were subhuman and intellectually inferior continued even during the medieval era. Contributions made by Black people towards the

development and revitalisation of their languages were scorned at. A case in point is the contribution made by Hudson Ephraim Ntsan'wisi who, according to Bill and Masunga (1983), was the first Xitsonga speaking person to attempt commenting on his mother tongue by writing a booklet printed by the Lovedale Institution Press in 1929. Instead of being encouraged, Ntsan'wisi was ruthlessly and brutally attacked by the eminent Professor C.M. Doke. Professor Doke said: "This pamphlet serves to emphasize the un-wisdom of untrained persons trying to give advice on such a difficult subject as orthography". From the above quotation, it is evident that the honourable professor looked down upon everything African. It really shows that the notion that Black people are "a dull, stupid, lazy, stinking nation" as expressed by Jan van Riebeeck in the eighteenth century, was still rife in the minds of some White compatriots even during the twentieth century. Despite this disparaging and unwarranted ridicule by the learned and honourable professor, Bill and Masunga (1983:14) are of the view that Ntsan'wisi's work deserves mention as it was the first attempt by a Xitsonga speaker to comment on his mother tongue in a scientific way.

Another reason that may have caused the misrepresentation of some murmured speech sounds is that the development process of the Xitsonga orthography was too long a process. Bill and Masunga (1983) posit that the writing or translation of *Buku* and the other books was not an easy task. This was because decisions taken at missionary conferences by people who were actually working with the Xitsonga-speaking people themselves had to be referred back to the Mission Council in Lausanne, Switzerland for ratification. There still, further differences of opinion prevailed amongst Mission authorities who had never, in their lives, heard the Xitsonga language spoken. If the Mission authorities failed to reach consensus, the matter was further referred to the so-called experts of the day – Lepsius in Berlin, and de Saussure in Geneva. According to Bill and Masunga (1983), this Mission Council protocol did not only result in innumerable and interminable delays and led to considerable frustration for the missionaries in the field, it also caused inaccuracies in the practical representation of certain speech sounds in Xitsonga.

Even the standardisation of the Xitsonga orthography by the relevant government authorities was at a snail's pace. Rev. Henri Berthoud proposed the Xitsonga orthography in his *Shangaan Grammar* in 1908 and this was only endorsed by the Transvaal Department of Bantu Education, Language Service Division in 1938. Again, at a meeting of the Xirhonga, Xitshwa and Xitsonga language representatives in Pretoria in 1949, a common orthography was decided upon for these cognate languages. However, only after thirteen years, in 1962, was a standardised orthography finally published by the Department of Bantu Education following the 1949 meeting. The standardised orthography was called *Tsonga Terminology and Orthography No. 2*. The Department of Education and Training only revised the *Tsonga Terminology and Orthography No. 2* in 1980, when they published the new *Tsonga Terminology and Orthography No. 3*. This short survey reveals that the Xitsonga language was indeed neglected by the relevant authorities, right from its developmental stage.

Another reason that may have contributed towards the misrepresentation of certain Xitsonga speech sounds is that, in all the activities of the development of the Xitsonga orthography, the Xitsonga-speaking people were not invited to participate in the process. From the time when the missionaries started in 1875 up to the time when the government intervened in 1938, the speakers of the language were backbenchers. Prof. C.T.D Marivate (cited in Masia, 2014), supports this observation and argues that not, only did the Department of Bantu Education under the apartheid regime neglect the Xitsonga language, but the affairs of the Xitsonga language and other indigenous languages as a whole were run by people who were not speakers of the languages themselves. When the *Tsonga Terminology and Orthography No.1, 2 and 3* were developed, Marivate argues that:

Vakamberi ni vafambisi va tinhlengeletano leti a ti kanela ni ku boha hi milawu ni matsalelo ya titheminoloji leti boxiweke laha henhla, a ku ri va nhlonge yo basa, ngopfungopfu Mabunu.

(Inspectors and the leaders of the meetings to discuss and take resolutions regarding the rules and manner of developing the orthographies cited above were White people, particularly Afrikaaners.)

To support his argument, Marivate further postulates that, in 1956, for example, Mr P.A. Hofman was the chairperson of the Tsonga Language Board, while in 1962-1965, it was Mr F.B. Olivier. During the period, 1949-1976, when apartheid was at its height, Boers had a negative impact on the standardisation and development of the Xitsonga language because of their policy of censorship in all the activities of the Tsonga Language Board. One of the negative impacts in the development of the terminologies cited above was that, firstly, the terminologies were supposed to be written in three languages, namely Xinghezi, Afrikaans and Xitsonga. Secondly, they allocated a very meagre budget to support and assist in all research programmes meant for the development and standardisation of the Xitsonga language.

According to the Department of Arts and Culture (2002), since the first occupation of South Africa by the Dutch in 1652, through successive periods of British rule, the Union of South Africa, and subsequently the establishment of the Republic of South Africa and the apartheid regime; government language policy and the power elite failed to recognise South Africa's linguistic diversity. This resulted in language inequalities, and the dominance of English and Afrikaans created an unequal relationship between these languages and the African languages. Colonial and apartheid language policies, together with political and social-economic policies, gave rise to a hierarchy of languages. The inequality reflected the racial and class inequalities that characterised South African society.

The situation was compounded by the fact that, owing to short-sighted and bureaucratic attitudes against implementing multilingualism, public and private institutions had a tendency to take *ad hoc* language decisions that negated the constitutional provisions and requirements relating to languages. All these practices engendered the corollary status of the indigenous languages and language varieties

of the African people and of other marginalised groups, including the Deaf and Blind. This encourages negative stereotypes of the African languages which are held not only by English and Afrikaans speakers, but even by many of the speakers of the African languages themselves.

As a legacy of the political history of colonialism and apartheid in South Africa, English and Afrikaans have been well established as languages of learning to the exclusion of indigenous African languages. Most African pupils write examinations in a language which they are not familiar with; for most of them English is not their second language but often their third or fourth language. The effect has been that, for all pupils who use African languages at home, their home language remains a language for everyday communication, but not to further education.

Bamgbose (2005) discusses the neglect of African languages by pointing out that the role and vitality of African languages have been eroded due to the impact of colonialism. He argues that not many Africans believe that their children could receive meaningful education today in three African languages beyond the early years of initial education. This cannot be further from the truth in South Africa today as a result of the liberal tendencies that believes that English is the *lingua franca*. Therefore, for one to stand a chance to get a job, one should be well-versed in the language of the colonial master. The implication is that those who are only literate in an African language are viewed as inferior to those who are proficient in imported or partner languages such as English, French, German and Portuguese. Pupils who use African languages at home are treated differently from the rest of the world since they are not educated in their first languages (Bamgbose, 2005).

Bamgbose (2005) further argues that the reason why African languages are not used in postcolonial South Africa is that English was during the colonial era imposed as a medium of instruction in schools; it was also believed that African languages do not have academic terms for scientific concepts that could be utilised for academic purposes. However, if truth be told, African languages can cope with the demands required by technology and science since traditional African concepts about the

universe, measurement, medicine and the environment exist and can be used in education. Because of the imposition of colonialism, it is not surprising that inappropriate judgements are made about a child's intelligence and ability when the fault lies squarely on a premature use of English as medium of what is best accepted and treated as a second language. Those who drop out and those who fail at the end of primary school now constitute another group of the excluded. Language exclusion, especially in South Africa, occurs as a result of language politics. Language exclusion occurs because of those who are fluent in the official languages become participators and those who are not, are marginalised. In the unique case of South Africa where two of the eleven official languages, English and Afrikaans, are imported languages which are dominant in education, it is clear that children who speak African languages are at a disadvantage. They have to cope with the mastery of English before they can receive any meaningful education, while children who speak English or Afrikaans can go straight into learning new content without having first to learn another language.

1.3 **STATEMENT OF THE RESEARCH PROBLEM**

Some of the Xitsonga murmured speech sounds, like the murmured bilabial explosive [b̥h], the murmured alveolar explosive [d̥h] and the murmured velar explosive [g̥h], are not correctly represented in the practical orthography. In other words, there is a mismatch or contradiction between the Xitsonga phonetic orthography and the Xitsonga practical orthography of those speech sounds. These misrepresentations have an effect on the intended semantic realisation of the words, and, ultimately, the sentences.

1.4 **PURPOSE OF THE STUDY**

The study is intended to investigate the relationship between murmured speech sounds, like the murmured bilabial explosive [b̥h], the murmured alveolar explosive [d̥h], the murmured alveolar affricate [dz̥h], the murmured alveo-lateral explosive [dl̥h], and the murmured velar explosive [g̥h], and their graphemic representations

in the Xitsonga language with a view of making recommendations of how to correct the Xitsonga orthography of such murmured speech sounds.

1.5 OBJECTIVES OF THE STUDY

The following are the objectives of the study:

- ❑ To identify, from existing Xitsonga texts, misrepresented murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ];
- ❑ To critically establish how Xitsonga speakers pronounce Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ];
- ❑ To examine how Xitsonga authors write Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ];
- ❑ To critically examine how Xitsonga speakers read Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]; and
- ❑ To examine how Xitsonga educators at primary and secondary schools as well as also university lecturers spell, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ].

1.6 RESEARCH QUESTIONS

The main research questions of the study are as follows:

- How do existing Xitsonga texts, represent murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]?
- How do Xitsonga speakers pronounce Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]?
- How do Xitsonga authors write Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]?
- How do Xitsonga speakers read Xitsonga murmured speech sounds, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]?
- How do Xitsonga educators at primary and secondary schools and also university lecturers spell, particularly the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveolar affricate [dzʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]?

1.7 SIGNIFICANCE OF THE STUDY

The orthographic representation of certain murmured speech sounds in Xitsonga is inconsistent with the actual speech sounds they represent. In some instances, the speech sounds are underrepresented. For example, the phonemes /b/ and /bh/ are both spelled with the same letter as in <beka> (to give birth) and <beka> (to be beatable) respectively. Thus, when readers see the letter in these two different words, there is confusion because they must first decide which sound to pronounce, /b/ or /bh/.

According to Cahill and Karan (2008), underrepresentation is never ideal from a linguistic or pedagogical point of view as it affects the intended semantic realisation of the spoken word and also causes confusion in the writing of the language and, ultimately, the reading of the language. Therefore, this study is very significant as it aims to bring about solutions to the perpetual confusion and ambiguity that prevail in the orthographic writing of certain murmured Xitsonga speech sounds. The solutions will be for the good of the Xitsonga language and its people as there will be uniformity in the orthographic representation of the identified murmured speech sounds, which presently bring about ambiguities in their semantic interpretations. The researcher hopes that bringing about this uniformity will benefit all role players such as Xitsonga writers, educators, students, editors, translators and language practitioners. The researcher also believes that this study will break new ground in the study of phonetics in the indigenous languages of South Africa.

1.8 DELIMITATION OF THE STUDY

The study is limited to the orthographic misrepresentation of murmured speech sounds in the Xitsonga language, with special emphasis on the *murmured bilabial explosive* [bɦ], the *murmured alveolar explosive* [dɦ], and the *murmured velar explosive* [gɦ] with their practical representations. These orthographic discrepancies will be identified from the existing Xitsonga texts which, *inter alia*, include readers for beginners, literature books, language manuals and dictionaries.

1.9 DEFINITIONS OF OPERATIONAL TERMS

1.9.1 Basic speech sounds

Languages have two distinct types of basic speech sounds, namely vowels and consonants. Vowels are sounds pronounced without a complete closure in the mouth or a degree of narrowing which would produce audible friction. The air escapes evenly over the centre of the tongue. The Xitsonga language has five basic

vowel sounds represented in practical orthography by the letters *a, e, i, o, u*. Consonants are basic speech sounds in which the breath is at least partly obstructed and which can be combined with vowels to form syllables. For example, *s, f, d*, etc. are consonants.

1.9.2 Bilabial and explosive consonants

Bilabial consonants are consonants that are formed by means of letting the lips touch each other. For example, *m, p, b, v*, etc. are bilabial consonants. Explosive consonants are consonants which, when pronounced, a momentary complete blocking of the air stream is made at a certain point with sudden release. For example, *p, b, t, d, g, k, kh, ph*, etc. are explosive consonants.

1.9.3 Complementary features of explosive consonants

Explosive consonants can have complementary characteristics. For example, voiceless explosives can be produced with aspiration, while voiced explosives can be produced with murmur. Aspirated consonants are voiceless basic explosives (*p, t, k*) which, when released, a strong puff of air follows over and above the normal flow of air accompanying the pronunciation of such sounds. Aspirated explosives, on one hand, are indicated by a small letter *h* following on the symbol for the aspirated consonant in both orthographic writing and phonetic script, e.g. <ph> [ph], <th> [th] and <kh> [kh].

Murmured consonants, on the other hand, are described by Baumbach (1981) as those basic voiced explosives [b], <d> [d], and <g> [g] which, upon their release, result in a low humming, which is concomitant with the consonant's pronunciation and which persists for a split second after the pronunciation of the consonant has stopped. A murmur is indicated in phonetic script by the symbol [ɦ] following the murmured consonant, while in practical orthography it is indicated by

the small letter <h> following the murmured speech sound, e.g. <bh> [bʱ], <dh> [dʱ], and <gh> [gʱ].

1.9.4 Nasal compounds

According to Ziervogel (1967a) a nasal compound is a nasal combined with one or more other consonants. For example, consonants “ng” and “mbh” are nasal compounds because in the first one the nasal “n” has been combined with the voiced velar explosive [g] <g> while in the second one the nasal “m” has been combined with the murmured bilabial explosive [bʱ] <bh>.

1.9.5 Phonemes

According to Thompson (1995), a phoneme is any of the units of sound in a specified language that distinguishes one word from another. For example, “b” and “k” in the words *bill* and *kill*, respectively, are phonemes because, when they substitute each other, the meanings of the words change.

1.9.6 Phonetics

Baumbach (1981) defines phonetics as the linguistic discipline which is used by phoneticians in the study of the production of speech sounds and their representations in a language.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

This chapter reviews literature on the phonetic description of the Xitsonga speech sounds and their Xitsonga orthographic representations with special reference to the murmured speech sounds.

2.2 DIFFERENT VIEWS REGARDING XITSONGA MURMURED SPEECH SOUNDS AND THEIR ORTHOGRAPHIC REPRESENTATIONS

The linguistic discipline which is used by phoneticians in the study of the production of speech sounds and their representation in a language is called phonetics. In studying how the speech sounds are produced, the phoneticians give phonetic descriptions of the speech sounds. A phonetic description of a speech sound can be viewed as a formula for its production. When describing a speech sound, phoneticians take into account three major factors. They check whether the speech sound is voiced or voiceless; they check its place of articulation; and they also check its manner of articulation. For example, a speech sound like “k”, in Xitsonga, can be described as a voiceless velar explosive. In other words, the formula for the production of this speech sound is that it is voiceless, its articulation takes place at the velar region of the oral tract, and the air stream from the lungs is impeded on its way out through the oral or nasal tract by means of a momentary complete blocking of the air stream with a sudden release.

This speech sound “k”, can be represented in three ways, namely by phonetic representation, phonemic representation, and graphemic representation (the actual spelling of the word). In Xitsonga, for example, the *voiceless velar explosive* speech

sound can only be represented graphemically by the letter *k* of the Roman alphabet and should always be written in angled brackets like <k>. Phonetically, it is represented by the symbol “*k*”, which must always be written in square brackets, for example [k]. Phonemically, it is represented by the symbol “*k*”, which must always be written within forward slashes, for example /k/. Conversely, the symbols [k], <k> and /k/, stand for a voiceless velar explosive and nothing else.

In Xitsonga, just like in many other indigenous languages, there are similarities between the ordinary orthography and their counter phonetic symbols in the majority of cases. For example, in the above example of a voiceless velar explosive speech sound, its practical orthographic representation is the symbol *k* which is similar to its phonetic representation [k]. The only difference is that in phonetic script, the symbol is written between square brackets. Thus, while following the International Phonetic Association (IPA) which was established in 1897 to standardise the phonetic writing of languages, the Xitsonga pioneer phoneticians have striven to keep as near as possible to the known Roman alphabet so that most of the phonetic symbols are the same as those used in the ordinary printing orthography of the Xitsonga language.

2.2.1 TYPES OF ORTHOGRAPHIES

Cahill and Karan (2008) define orthography as a system for representing a language in written form. It encompasses more than the symbols that represent the sounds (often called characters, letters or graphemes). Orthography also covers relative placement of these symbols, word breaks, punctuation, diacritics, capitalization, hyphenation and other aspects, which might be regulated in a written standard. Ziervogel (1967a) concurs with Cahill and Karan (2008) as he defines orthography as a system of symbols used to represent speech sounds in a particular language, and points out that each language has its own practical orthography. Yallop (1976) goes a step further to point out that, in practical orthography, the symbols should not just

represent the speech sounds, but that they should be phonemic as well. In other words, there should be a one-to-one correspondence between each phoneme and the symbolisation of that phoneme. In the study of linguistics, speech sounds can be represented in three different ways. For example, the speech sound “v” can be (a) enclosed in forward slashes /v/ for its phonemic representation; (b) written within square brackets [β] to indicate its phonetic representation; and (c) enclosed in angled brackets <v> to indicate its graphemic representation, that is the actual spelling system.

There are different types of systems of writing which, *inter alia*, include pictographic, ideographic, logographic, syllabic writing system, alphabetic writing systems and the phonetic writing system (Rana 2014). For the purposes of this study, only the alphabetic writing systems will be discussed. An alphabetic writing system employs a character or combination of characters to represent the speech sounds used by that language. Each of the syllables make up the words of a language since there is just a limited number of speech sounds used by any given language. Ideally an alphabetic system should have a one-to-one correspondence between phonemes and graphemes. That is, each grapheme should represent one phoneme and each phoneme should represent one grapheme. According to Baumbach (1981), a voiced bilabial explosive [b] is, for example, represented by the grapheme in the Xitsonga language.

2.2.2 GENERAL XITSONGA GRAMMAR BOOKS COMPILERS

Ziervogel (1967a) is of the view that the murmured explosives <bh> [bh̥], <dh> [dh̥] and <gh> [gh̥] do not happen anywhere else in Xitsonga except in the nasal compounds <mbh> [mbh̥], <ndh> [ndh̥] and <ngh> [ngh̥] respectively. Ziervogel further avers that sounds produced with aspiration or murmur, are of actual importance in the language, for without aspiration or murmur, the meaning of a word may be quite different from one with aspiration or murmur. Ziervogel gives

examples from Sesotho and IsiXhosa to support the importance of a complementary feature in aspirated or murmured sounds. He points out that, in Sesotho, *taba* means “matter”, but *thaba* means “mountain” because of the complementary feature of aspiration <th> in *thaba*. In isiXhosa *bala* means “to count”, but *bhala* means “to write” because of the complementary characteristic of murmur <bh> in *bhala*.

Ziervogel’s argument that murmured explosives <bh> [bʰ], <dh> [dʰ] and <gh> [gʰ] do not happen anywhere else in Xitsonga except in the nasal compounds contradicts Meinhof’s and Cole’s views. Meinhof (1932), without giving any examples though, is of the view that voiced explosives, though seldom, occur as murmurs in Xitsonga. With regard to words with murmured speech sounds which have been left out in the Xitsonga orthography, Meinhof suggests that, it seems ill-advisable to attempt any reform, which is not strictly necessary in view of the large literature already in existence. From a linguistically point of view and taking into account the importance of a language, it is doubtful if the stakeholders, particularly the speakers of the Xitsonga language, will be in concordial agreement with Meinhof’s suggestion. It is for this reason that this study revisited Meinhof’s suggestion.

Cole (1955) concurs with Meinhof’s view that murmured speech sounds only occur in nasal compounds in the Xitsonga orthography. He, however, points out that the exclusion of these speech sounds was somewhat unfortunate because words with these sounds do occur in Xitsonga, although very rarely. However, Cole does not give examples of such words. Although Cole does not directly address the issue of murmured speech sounds in depth, he talks of phonemes which have a direct bearing on the functions of complementary features of speech sounds like murmur and aspiration. Cole (1955) postulates that phonemes have semantically contrastive functions, that is, they serve to differentiate between words having different meanings. For example, if in a given word one phoneme is replaced by another, a new word with a different meaning, or a “nonsense word”, is created. Cole gives an

example of this scenario by the substitution of the “o” phoneme for the “u” in “go bua” (to speak) which produces a new word “go boa” (to return). The same can be applied to a basic voiced consonant when it is substituted by its complementary feature. For example, if the phoneme “b” is substituted by its murmured counterpart, a new word with a complete new meaning is formed as in the Xitsonga words <bonga> (to thank) and <bhonga> (to bellow).

Baumbach (1981) is another scholar who ventured into this terrain of murmured speech sounds in the Xitsonga language. Although Baumbach (1981) is more concerned with speech sounds and how they are pronounced, he also discusses how the speech sounds are written in both phonetic script and practical orthography. Despite the fact that Baumbach (1981:11) is of the view that certain voiced consonants like *b, d, g, m, n, r, y, w* and *vh* can be pronounced with murmur, it is doubtful if the examples of such words, with voiced bilabial explosive sounds, are indeed correct in practical orthography. The examples like <babalala> [babalala] (to lie down) and <bubula> [bubula] (glean last remains of) are suspect of under-representation.

Baumbach further gives examples of such murmured consonants. He describes <bh> [bʰ] as a murmured bilabial explosive which occurs in nasal compounds and gives examples of such consonants as <mbhimbhi> [mbʰimbʰi] (species of a tree), <mbhambhazi> [mbʰiambʰiazi] (a type of ant). This supports Ziervogel’s argument that a murmured bilabial explosive only occurs in the nasal compound <mbh> [mbʰ] (Ziervogel 1967a:104). Baumbach and Ziervogel’s notion that a murmured bilabial explosive only occurs in nasal compounds is a fallacy because a speech sound cannot occur in another speech sound in phonetic terms. Each speech sound is independent and is represented independently by its own symbol. For example, a murmured bilabial explosive [bʰ] is represented by the symbol <bh> while a murmured bilabial nasal [mbʰ] is represented by the symbol <mbh>.

Another point worth mentioning is Baumbach and Ziervogel's point of view about the occurrence of a murmured bilabial explosive only in nasal compounds. What this implies is that there are no words with *murmured bilabial explosives* in Xitsonga. This point of view is contrary to the argument advanced by Cole who is of the view that there are certain speech sounds that are produced with a murmur in Xitsonga. This implies that, if such words only occur in nasal compounds, it means that murmured sounds have no representation in both phonetic script and practical orthography.

Yet, according to Yallop (1976), a practical orthography should be phonemic and there should be a one-to-one correspondence between each phoneme and the symbolisation of that phoneme. The consequence of misrepresentation or the lack of one-to-one correspondence between the phonemes and their symbolisation of those phonemes, Yallop (1976) claims, is that the meanings of the respective words with the murmured speech sounds are obviously compromised. Ziervogel (1967a) avers that sounds produced with aspirations or murmurs are of great importance in the language because, without aspiration or murmur, the meaning of a word may be quite different from the one without aspiration or murmur.

It would seem, therefore, that the above scholars have different opinions on murmured speech sounds. This difference, in opinion, may, in one way or the other, cause confusion in the orthography of the Xitsonga language. To this end, Meinhof (1932) argues that, despite the fact that the current practical orthography of some murmured consonants is inadequate, it seems ill-advisable to attempt any reform, which is not strictly necessary, especially in view of the large literature already in existence. Cole (1955) also points out that the exclusion of the murmured speech sounds in the Xitsonga orthography was somewhat unfortunate because words with these sounds do occur in the Xitsonga language.

The following is a Consonant Chart extracted from Baumbach (1981):

Table 2.1 Consonant Chart

		Bilabial	Bilabio-alveolar	Dental	Labio-dental	Alveolar	Alveo-lateral	Prepalatal	Palatal	Velar	Pre-velar	Glottal	Bilabio-prepalatal
Explosive	voicel. asp. labial. asp. palat. asp. voiced labial. palat. murm. labial. palat.	p ph py phy b by bh bhy				t th tw thw ty thy d, r dw, rw dy, ry dh, rh rhw	tl tlh tlw dl dlw			k kh kw khw g gw gh ghw			
Implosive	voicel. asp. labial. voiced. labial.			q qh qhw gq gqw									
Nasal	labial. murm. labial. palat.	m mh my		n	m	n nw nh nhw		ny nyw		n' n'w n'h n'hw			
Fricative	voicel. labial. voiced. labial. palat. murm.	v	sw		f	s sw z zw vh	hl hlw l lw	x xw xj		hh	hhw	h hw hy	
Affricate	voicel. asp. labial. voiced. labial. murm.		tsw tshw dzw		pf pfh bv bvh	ts tsh tsw dz dzw dzh	dhl j jw jh	c ch cw j jw jh					(by)
Semi-vowel	murm.	w wh							y yh				

2.2.3 DICTIONARY COMPILERS

According to Thompson (1995), a dictionary is a book that lists, usually in alphabetical order, and explains the words of a language or gives equivalent words in another language. However, Crystal (2010) defines a dictionary as a reference book that 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.

Several people have ventured into the development of Xitsonga dictionaries, both bilingual and monolingual dictionaries. Cuenod, for example, published the first bilingual dictionary in 1967 titled *Xitsonga-English Dictionary*. Before Cuenod gave an alphabetic list of Xitsonga words with their explanations in English, he produced a list of speech sounds found in the Xitsonga language in practical orthography and phonetic script, as well as their phonetic descriptions. He further argues that murmured speech sounds like <bh> [bʰ], <dh> [dʰ] and <gh> [gʰ], which he, unfortunately, calls aspirated sounds, only occur in nasal compounds <mbh> [mbʰ], <ndh> [ndʰ] and <ngh> [ngʰ] respectively. However, according to Baumbach (1981), voiced explosives are never aspirated; instead they are murmured. It is only voiceless explosives which are aspirated. Besides this issue of terminology, Cuenod's argument that murmured explosives occur only in the nasal compounds is seemingly misleading if one takes into account the definition of what a nasal compound is.

According to Ziervogel (1967a:104), nasal compounds are consonants in which a nasal has been combined with one or more other consonants. He gives, as an example, the sound <ngh> [ngʰ] as an example and further states that the sound <gh> [gʰ] occurs in this compound only. According to Baumbach (1981: 23), the sound <gh> [gʰ] is a murmured velar explosive. A murmured sound, according to Baumbach (1981:11), is a complementary characteristic of a basic consonant. In this

case, the murmured velar explosive <gh> [gh] is a complement of a voiced velar explosive <g> [g]. This basic voiced velar explosive <g> [g] can still be combined with the nasal <n> [n] to form a compound nasal <ng> [ŋg] as in <ngoma> [ŋgɔma] (drum). As a consequence, it is highly unlikely that Cuenod's argument that Xitsonga murmured explosives only occur in nasal compounds alone is correct.

This sentiment is also shared by Cole (1955), who postulates that there are words with murmured sounds which occur outside the nasal compound environment. Cuenod's claim, therefore, causes confusion in terms of the orthographic representation of those murmured speech sounds, which do not fall within this nasal compound environment. As a consequence of Cuenod's argument, it means, therefore, those speech sounds which fall outside Cuenod's categorisation are either misrepresented orthographically or there is underrepresentation or overrepresentation of some of the speech sounds, more especially the murmured ones in the Xitsonga language. According to Cahill and Karan (2008), underrepresentation and overrepresentation are problematic in the orthography of a language. Overrepresentation, on the one hand, is often a problem for reading because the reader may not be sure which sound to pronounce when he sees a given symbol. On the other hand, Cahill and Karan (2008) posit that underrepresentation is a problem for writers because when the writer is writing a word, he must choose between two symbols for the same psychological sound (phoneme). The potential for choosing the wrong one is highly significant.

The National Lexicography Unit, under the auspices of the Pan South African Language Board, in 2014, published a monolingual dictionary titled *Dikixinari ya Xitsonga*. As expected, the monolingual dictionary covers all the areas required of a dictionary. However, there seems to be discrepancies with regard to the phonetic script of the lemmas with the murmured speech sounds in how they should be pronounced. For example, according to the Xitsonga National Lexicography Unit (2014), the explanation of the pronunciation of the sound in the lemmas *banga* (a

bush knife) and *bangala* [bangala] (type of wild vegetable) seem to be misleading. Although the speech sound “b” in *banga* is different in pronunciation from the speech sound “b” in *bangala*, they are represented by the same symbol in practical orthography. In other words, there is underrepresentation. According to Cahill and Karan (2008), as already alluded to above, underrepresentation causes confusion because the reader will first have to decide whether to pronounce the phoneme /b/ in the lemmas *banga* and *bangala* as [b] or as <bh> [bf].

As a result of all these discrepancies in the orthographic representation of certain speech sounds, especially the murmured ones prevalent in some dictionaries relating to the Xitsonga language, speech sounds with the same features are written differently by authors in Xitsonga texts. These orthographic misrepresentations cause reading and writing problems and, to a large extent, even compromise the meanings of the respective words. Yallop (1976) is of the view that orthographic misrepresentations or lack of one-to-one correspondence between phonemes and their symbolisation of the phonemes affect meaning of words.

2.2.4 XITSONGA LANGUAGE MANUAL DEVELOPERS

Several authors have written Xitsonga language manuals for the advancement and development of the language. One such author is the late Rev. Henri Berthoud of the Swiss Mission whose unfinished Xitsonga grammar book titled *Shangaan Grammar* was published posthumously by his wife, Mrs H. Berthoud, in 1908. In his manuscript, Berthoud does not dwell much on the orthography except to indicate that the Shangaan language is written by means of twenty four different signs, of which five are vowels and nineteen consonants. The signs are: *a, b, d, e, f, g, h, i, j, k, l, m, n, ñ, o, p, r, s, t, u, v, w, y, z*.

Berthoud further identifies the vowels as *a, e, i, o, u*, which are pronounced as in Italian or in German. The vowels are sometimes long, and sometimes short. They are

sometimes open, and sometimes closed. He says these differences are not shown in practical writing and must be learned by practice. He further indicates that there are no diphthongs in Shangaan. In a word, when two vowels are following each other, they are pronounced separately.

From a phonetic point of view, it is very difficult to understand the manner in which the author tries to describe these vowels. Firstly, he mentions that these vowels are pronounced as in Italian or German. This type of description falls short because, if the reader does not know Italian or German, then he will not understand how the respective vowels are pronounced. Secondly, the author points out that the vowels are sometimes long and sometimes short and further gives an example of *famba* (to go) where the first syllable (referring to the penultimate vowel) is long, and the second syllable (referring to the ultimate) is short. In this example, the manner in which the lengths of the vowels happen in Xitsonga is not clearly expressed. For example, it is not clear what happens in the case of monosyllabic and polysyllabic words like *dya* (to eat), *fambafamba* (move around) and ideophones like *dziribya!* (to stand still). Thirdly, he says the vowels are sometimes open, as in *tolo* (yesterday) and *wena* (you). Yes, both vowels in the word *tolo* [tɔlɔ] are open, but they may be closed in some other environments where phonological processes could have happened, for example in *tolweni* [tolweni] (the day before yesterday). Thus, the author should have gone further to explain how vowels ‘e’ and ‘o’ can be influenced by the other vowels in different environments.

In as far as consonants are concerned; Berthoud identifies the following which correspond exactly with the English consonants *b, d, f, j, k, l, m, n, p, r, s, t, w, y* and *z*. He selects a few consonants and describes their features. For example, he describes the *g* consonant as always hard before any vowel. For example *gama* (eagle), *gerere* (a type of a locust) and *gimeta* (to end). According to Baumbach (1981:2), a phonetic description of a speech sound is, in essence, a formula for its production. Thus, from a phonetic point of view, it is very difficult to understand the

exact production of the speech sound “g” which Berthoud loosely describes as “always hard before any vowel”.

Berthoud further describes h as in *hoxa* (to throw) as an aspirated sound which should not be confused with o as in *oxa* (to roast); *holova* (to quarrel) and *olova* (to be soft). Firstly, it boggles the mind that authors compare a consonant and a vowel as their productions are far different. According to Baumbach (1981), <h> [h] is a voiced glottal fricative while <o> [ɔ] is a mid-low back vowel. By confusing these two different speech sounds, perhaps it is an indication that the author’s knowledge of phonetics is poor.

Berthoud further describes v as a pure labial sound which is produced between the two lips, just as if one is blowing away something from his writing paper. It is the same sound as the w of central Germany. Phonetically, a speech sound like a consonant is described by taking into account its voiceness (i.e. whether it is voiced or not), its complementary features if it has any, its place of articulation and its manner of articulation. Hence Baumbach (1981) and Ziervogel (1967), describe the consonant <v> [β] as a voiceless bilabial fricative and not a “pure labial sound which is produced between the two lips, just as if one is blowing away something from his writing paper” as Berthoud describes it. And he further advises that it is the same sound as the w of central Germany. What is pure labial in linguistic terms and what if the reader is not well conversant with German?

What is further shocking is the view that Berthoud posits on the voiced labiodental fricative <v> [v] of the IsiZulu language. He says the dento-labial v of the IsiZulu language corresponds to *pf* in Shangaan. For example *vuka* (rise up) in IsiZulu is *pfuka* (rise up) in Shangaan. However, he further argues that, this v of the IsiZulu language may be found in Shangaan, but is always preceded by a h, for example, *hvumba* (to guess), *hvebve* (a kind of a bird). In addressing the first part of his argument, it can be said that the IsiZulu language <v> [v] is a fricative, while the

<pf> [ɸf] of Xitsonga is an affricate. Thus, the two cannot be equated. Again, in addressing the second part of his argument, that is, that v of the IsiZulu language may be found in Shangaan but is always preceded by a b, the two cannot be compared since the IsiZulu <v> [v] is a fricative while the Xitsonga <bv> [ɸv] is a voiced labiodental affricate.

He further singles out other speech sounds which he, unfortunately, calls compound consonants and describes them. He argues that hl is found in Shangaan as it is found in IsiZulu and Sesotho. It is produced by forcing the breath on the sides of the tongue. This can be done either on one side or on both sides. Sh has exactly the same value as in English. Sw means to express a kind of whistling or hissing sound which is pronounced by contracting the lips like when playing a flute and by bending down the tip of the tongue under the lower lips. According to Baumbach (1983), <hl> [ɬ], <sh> or <x> [ʃ] and <sw> [ʂ] are fricatives. Unlike affricates which are formed by two different consonants (a stop and a fricative), fricatives are independent consonants which are formed when air from the lungs is forced out through a small aperture in the oral tract. So, it is misleading to call speech sounds like <hl>, <sh> and <sw> compound consonants.

Berthoud concludes his discussion of the study of Xitsonga orthography by giving a table of consonantal sounds which he classifies according to their physiological characters as follows: gutturals > *k, g, ŋ, y*; palatals > *tz, j, sh, hl*; dentals > *t, d, n, s, z, r, sw, zw*; dento-labials > *f, v* and labials > *p, b, m, v, w*. Berthoud, however, does not talk about complimentary characteristics of the basic speech sounds found in the Xitsonga language. Berthoud is silent about complimentary features like aspiration and murmur which play a major role in the semantic representations of the Xitsonga language.

Another author who wrote Xitsonga manuals is H.A. Junod, who was a missionary. Besides writing hymn books and translating the Bible into Xitsonga in those

pioneering years, Junod wrote *Grammaire Ronga* in 1896. Despite the fact that the Xitsonga orthography was still at its fledgling stage during that time, Junod made no attempt to venture into this area. Instead, Junod takes us through the grammar of the Xitsonga language, that is, the language study, which includes parts of speech like nouns, pronouns, verbs, adjectives and so on.

Marivate, Mathumba and Masebenza also wrote *Mayana Xitsonga*, a series of Xitsonga language manuals for Standard 6 – 8 learners. *Mayana Xitsonga* was published in 1974. Since *Mayana Xitsonga* was the first Xitsonga Language Manual written by Xitsonga language educators and practitioners, one would have expected the manuals to delve into the practical orthography of the Xitsonga language, especially where discrepancies are prevalent and in particular in the practical representation of murmured speech sounds. However, except for explaining in passing the phonological processes that take place when locatives are formed, the language manuals are silent about the orthography of the language. The manuals mainly deal with language study and usage. In other words, they explain how the language is structured (parts of speech) and how it is used to bring about different meanings in the daily conversations and interactions of its speakers.

2.2.5 SOUTH AFRICAN GOVERNMENT XITSONGA LANGUAGE POLICY MAKERS

In South Africa, the Department of Education, through the Language Boards and Language Committees, has, from time to time, or whenever there is a need, released policy documents related to the Xitsonga Language Terminology and Orthography. For example, the *Tsonga Terminology and Orthography No 3*, was released by the Departmental Tsonga Language Committee in 1980. In this Tsonga Terminology and Orthography No 3, the Committee confirms that the Tsonga Orthography remains the same as previously published in the *Bantu Education Journal* of October, 1956 (Vol. II, 8) and as amended in October, 1960 (Vol. VI, 8), together with a few slight

changes effected since then. The committee further lists orthographic symbols of speech sounds found in the Xitsonga language and shows how they are pronounced. A few speech sounds are selected and explanatory notes are given to explain how such speech sounds should be represented in orthographic writing. For example, *the voiced, dentilabial fricative* should be represented by the symbol vh in practical orthography. The explanatory notes further indicate that the use of apostrophes in qualificative concords (adjectival, possessive and relative) is to be discontinued. The word division of these forms remains as hitherto: munhu *lonkulu* (not lo'nkulu), vanhu *lava tirhaka* (not la'va tirhaka), and so on.

The notes further explain how hyphens should be used to separate a prefix and a word which begins with a capital letter; how capitals should be used at the beginning of proper names and place names, in titles, for names of the days of week and for the names of people/tribes/racial designations; how the spelling of prefixes preceding vowel stems should be written; how concords referring to nouns with the prefix *dyi-* should be written; how locatives with prefix *ɛ-/u-* and reflexive verb prefix are to be written; and also how the subjectival concord of the second and third person singular, *u* and *o* should be used. Except for the subjectival concords of the second and third person singular where u should be used instead of o, the *Tsonga Terminology and Orthography No 3* makes no effort to suggest any other changes with regards to practical orthographical representations, let alone an in-depth discussion of murmured speech sounds.

Again, in 2008, the Pan South African Language Board, through its Xitsonga National Language Body (XNLB), also released a booklet entitled *Milawu ya Mapeletelo na Matsalelo ya Xitsonga-2008*. The title of this booklet literally means *Rules for the Spelling and Orthography of Xitsonga Words*. Although the title of the booklet speaks of the spelling and orthography of the Xitsonga words, it is, in actual fact, silent about orthography *per se*. According to Yallop (1976), there should be a

relationship between the orthographic symbols and the speech sounds they represent.

In this booklet, only new rules and regulations that have to do with spelling are outlined. For example, it spells out that the locative prefix *eka/aka* must be agglutinated to its noun stem like in *ekaMhinga*, when *Mhinga* refers to the name of a person. But if *Mhinga* refers to the name of a place, then the locative prefix should not be agglutinated to the noun stem, hence *eka Mhinga*. This cited example has nothing to do with the manner of articulation of the speech sounds and how they are represented orthographically, but it is more concerned with the spelling of words.

The Department of Education changes its Policy Documents (syllabuses) from time to time if a need arises. For example, in 2005, the department introduced the 2005 National Curriculum Statement (NCS) which was revised in 2008 and renamed Revised National Curriculum Statement (RNCS). Again, the RNCS was, in 2011, replaced by the Curriculum Assessment Policy Statement (CAPS). All these policy documents or syllabuses are silent about the teaching of the Xitsonga Orthography.

The next chapter presents the methods used to gather data.

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.1 INTRODUCTION

This chapter discusses the research design, as well as the research methodology. In addition, the chapter presents the research techniques which were employed in collecting data and the population of the study from which data were collected. The chapter also focuses on how data were analysed, the theoretical framework, as well as the ethical considerations.

3.2 RESEARCH DESIGN

According to Mouton (1996:175), the research design serves to plan, structure and execute the research to maximise the validity of the findings. It gives direction from which the underlying philosophical assumptions and data collection are underpinned. The research design, for this study, therefore, was a descriptive and interpretive case study that was analysed through qualitative methods.

According to Kardos and Smith (1979), a case study is an account of an activity, event or problem that contains a real or hypothetical situation and includes the complexities one would encounter in the workplace. The case study approach was, therefore, more useful in this study as it allowed the researcher to explore a bounded system of a case or multiple cases overtime through a detailed in-depth data collection process involving multiple sources of information such as interviews, observations, documents, *et cetera*. In this case, the misrepresented murmured speech sounds were analysed in the context of how the Xitsonga-speaking people interact in their daily conversations.

3.3 RESEARCH METHODOLOGY

Myers (2009) defines research methodology as a strategy of enquiry which moves from the underlying assumptions of what the research design and data collection are aiming at. Myers further argues that, although there are other distinctions in the research modes, the commonest classification of research methods encompasses qualitative and quantitative. At one level, qualitative and quantitative refer to distinctions about the nature of knowledge, how one understands the world and the ultimate purpose of the research. On another level of discourse, the terms refer to research methods, that is, the way in which data are collected and analysed, and the type of generalisations and representations derived from the data.

Although neither of the quantitative and qualitative research studies are intrinsically better than the other in conducting research in the field of linguistics, the qualitative approach was more suitable and ideal because of the context, purpose and nature of this research study. Unlike the quantitative approach whose techniques are rigidly associated with gathering, analysing, interpreting, and presenting of numerical information, the qualitative approach was more suitable as it is an inquiry process of understanding based on distinct methodological traditions of inquiry that explore a social or human problem. The qualitative approach allowed the researcher to build a complex and holistic picture, to analyse words and report detailed views of informants, as well as allow the researcher to conduct the study in a more natural setting. Stake (1995) adds that the qualitative approach presents data as a descriptive narration with words and attempts to understand phenomena in natural settings unlike the quantitative approach which presents statistical results using numerical or statistical data. As statistics or numbers had no bearing in this study, the qualitative approach was more ideal as the fulcrum of the results was on the opinions of the participants.

The choice of the qualitative approach was also influenced by the inductive nature of the study which renders a hypothesis unnecessary to kick start the research. The

qualitative approach allowed the design to evolve rather than having a complete design at the beginning of the study because, according to Lincoln and Guba (1985), it is difficult if not impossible to predict the outcome of interactions due to the diverse perspectives and value systems of the researcher and participants, and their influence on the interpretation of reality and the outcome of the study.

Another reason why the qualitative approach was chosen is that the problem was studied in its natural setting. This enabled the researcher to come up with possible theories to understand the phenomenon of murmured speech sounds in Xitsonga. As a result, the qualitative research methodology was useful in making reliable and dependable recommendations of the mismatch between some Xitsonga murmured speech sounds and their practical orthographic representations.

3.4 THEORETICAL FRAMEWORK

The daily conversations of the Xitsonga-speaking people reflect the existence of words with murmured and unmurmured speech sounds in various environments. However, Ziervogel (1967a), who is one of the pioneers of the Xitsonga orthography, posits that murmured speech sounds only occur in the following nasal compounds: [mbh], [ndh] and [ngh]. As a result of the influence of this theory, some murmured and unmurmured speech sounds are represented by the same orthographic symbol in various Xitsonga texts. The underrepresentation of these speech sounds is a very serious discrepancy in orthographic writing as, according to Yallop (1976), different speech sounds should be represented by different symbols.

The focus of this study was to test the validity of Ziervogel's assumption that in Xitsonga, murmured sounds only occur in nasal compounds, an assumption which has unwittingly led to the misrepresentation of murmured speech sounds prevalent in Xitsonga texts. In the process of collecting and analysing data, the Grounded Theory was employed, in order to develop a theory about this phenomenon of interest.

Glaser and Strauss (1967:2), define Grounded Theory as the discovery of theory from data systematically obtained from social research. Charmaz (2006) further postulates that Grounded Theory allows for simultaneous collection and analysis of data, as well as the creation of analytic codes and categories developed from the data collected. Employing the Grounded Theory, therefore, enabled the researcher to generate or discover a theory by observing how the speakers of the Xitsonga language pronounce words with murmured speech sounds and how these speech sounds are represented orthographically.

3.5 RESEARCH TECHNIQUES

According to Creswell (2003), triangulation means using more than one method to collect data on the same topic. Since data was collected from various sources like existing Xitsonga texts and interviews, individual responses were triangulated by analysing, comparing and categorising them together with the results of transcriptions. This enabled the researcher to validate the research findings and eliminate any biases resulting from only one researcher investigating the phenomenon.

3.5.1 INTERVIEWS

In this study, data was also collected by way of conducting interviews which were structured and semi-structured. Closed and open-ended questions were asked and participants were required to respond both verbally and in writing. The two different types of interviews, the structured and the semistructured, complemented each other. In the structured interviews, the interviewees (both academic and non-academic) were given a set of predetermined closed questions which were short and clearly worded and which required precise answers. In the semi-structured interviews, which were done with academic speakers of the Xitsonga language only, interviewees were asked both closed and open questions.

However, in order to be consistent with all participants, the interviewer had a set of pre-planned core questions so that the same areas would be covered with each interviewee. For example, the academic interviewees were required to edit short sentences which bear names of words that incorporate the targeted speech sounds and then they were asked to read the translations to hear how they pronounce the targeted speech sounds of words, while the interviewer was writing down the phonetic description of the targeted sounds.

While conducting these interviews, the researcher took great care to avoid teaching and preaching to the interviewees. Awkward questions and interruptions were avoided as Fields and Morse (1994) warn against these pitfalls in interviewing. During the interviews, the interviewer wrote down the phonetic description of the targeted speech sounds from the responses given by the interviewees. The proceedings were also audio-recorded in order to provide a complete record of activities.

3.5.2 TEXTUAL ANALYSIS

Data were also collected from Xitsonga literature books, language manuals and dictionaries, and any other relevant documents written in Xitsonga. To collect data from these documents, thematic analysis was used as follows:

- From various Xitsonga texts, words with a *bilabial explosive speech sound*, which are orthographically represented by the grapheme were identified for the participants to read aloud to allow the interviewer to hear how the words are being pronounced. For example: in *bava* (father), in *xibala* (kraal), in *xibochwa* (prisoner).
- From various Xitsonga texts, words with a *bilabial murmured explosive sound*, which are orthographically represented by the symbol were identified for the participants to read aloud to enable the interviewer to hear how they pronounced the words. For example: in *bava* (a bitter taste), in *xibalo* (tax), in *xiboho* (a pledge).

- From various Xitsonga texts, words with *bilabial*, *alveolar* and *velar nasal compounds*, which are orthographically represented by the symbol <mb>, <nd> and <ng> respectively were identified for the participants to read aloud in order for the interviewer to hear how they were being pronounced. For example: <mb> in *timboni* (lights), <nd> in *xitandi* (a residential site), <ng> in *ngoma* (a large drum/circumcision lodge and rites).
- From various Xitsonga texts, words with *murmured bilabial*, *alveolar* and *velar nasal compounds*, which are orthographically represented by the symbol <mbh>, <ndh> and <ngh> respectively were identified for the participants to read aloud in order to allow the interviewer to hear how they were being pronounced. For example: <mbh> in *timbhoni* (witnesses), <ndh> in *ndhichi* (a plate), <ngh> in *nghoma* (a song).

3.6 RESEARCH POPULATION

According to Davies (2007: 55), the term population refers to the category of people about whom one intends to write one's reports and from which one intends to draw one's sample. Because the study is based on the pronunciation of certain murmured speech sounds of the Xitsonga language, participants were drawn from the Xitsonga-speaking community. Twenty five people were selected as follows:

PARTICIPANTS	NUMBER
Xitsonga-speaking people who cannot read or write	5
Xitsonga-speaking people who can read	5
Xitsonga Primary School educators	3
Xitsonga High School educators	3
Xitsonga University lecturers	3
Xitsonga authors and lexicographers	3
Xitsonga subject specialists	3
TOTAL	25

Table 3.1: List of Participants

Non-academic Xitsonga speakers were targeted for the pronunciation of certain identified words as these speakers may not have been exposed to any academic or literary influence in the pronunciation of such words. Educators/academics and other language practitioners were used for the interviews and to answer the questions regarding the reading of identified texts and the orthographic representations of certain murmured speech sounds as it was assumed they would at least have knowledge of Xitsonga orthography as they use Xitsonga texts in their daily execution of their duties.

3.7 ETHICAL CONSIDERATIONS

Silverman (2001:201) argues that, when conducting the research, the researcher is in actual fact entering the private spaces of the participants. The researcher always interacts with the participants to allow them to share their personal views and opinions freely. The researcher, as further stated by Creswell (2003), is obliged to respect the rights, needs, values and desires of the informants by taking appropriate steps to adhere to strict ethical guidelines, and to uphold participants' privacy, confidentiality, dignity, rights, and anonymity before, during, and after the research had been conducted. The researcher, therefore, informed the participants of the purpose and nature of the study, data collection methods to be used, and the extent of the research prior to commencement of the interviews. Furthermore, the researcher explained to the participants the roles they would play in the study.

The researcher also assured participants that they would not be harmed physically or psychologically as a result of their participation. Participants were also assured that confidentiality and anonymity will be maintained through the removal of any identifying characteristics before widespread dissemination of information. Participants were also made aware that the research was for academic purposes only and that their participation was voluntary. No one was forced to participate.

CHAPTER 4

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

Data presented and analysed in this chapter was collected utilising various collection methods from Xitsonga texts and from the Xitsonga-speaking people.

4.2 SECTION A: DATA PRESENTATION

4.2.1 DATA COLLECTED FROM EXISTING XITSONGA TEXTS

Words with particular features were identified from various literary texts such as language manuals, literary texts like novels, drama and poetry books, and reference materials like dictionaries and collections of idioms and proverbs, as well as from religious documents such as the Bible and hymn books.

4.2.1.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [b̥]

From various Xitsonga texts, words with a voiced bilabial explosive and murmured bilabial explosive were identified in order to verify their orthographic script. For example, the **voiced bilabial explosive** [b] in the words <bava> (father) and <bangala> (a type of traditional vegetable) from an anthology of short stories by Malungana (2005:3) and an anthology of poems by Malungana and Ngobeni (1997: 62) respectively were identified. The **murmured bilabial explosive** [b̥] in the words “bava” (a bitter taste) and “buku” (a book) were identified from *Vutlhari bya Vatsonga: A collection of Xitsonga Proverbs* by Sasavona Books (1936:188) and a Xitsonga Reader titled *Buku ya Vahlayi Sub A* by Sasavoba Books (1971:26).

(a) “He **bava**, xana mi hi vula swiphuwa ku nga si hela na vhiki hi mi hlawurile?”

(Malungana 2005:3)

[Hey old man, do you call us stupid yet while we have just elected you?]

- (b) *U kuma swiluva swa tin'hwembe swi balekile namixo,
Loko wo kuma miroho ya kona yi kandzeriwe hi rininga,
U nga tiluma na tintiho loko u karhi u phyatsa kunene,
Guxe na **bangala** u kuma swi phumile emasin'wini,
Mikhusu u kuma yi khusiwile masaka ya tsandzeka no hefemula.*
(Malungana & Ngobeni 1997:62)
[You find cucurbits flowers having sprouted in the morning,
If you can find stamped ground-nuts being added to the greens,
You can even bite your fingers when you are busy suck the sauce,
You find guxe and bangala budding new shoots in the fields,
You find bags and bags filled with dried vegetables all over the place.]
- (c) *U nga voni nxakwarhi ku vangama ka wona, endzeni ka wona wa **bava**.*
- *Swa le handle swa kanganyisa.* (Sasavona Books 1936:188)
[Do not be deceived by the shining *nxakwarhi* fruit, it is bitter inside.
- Appearances are deceptive.]
- (d) *Bibele i **buku** ya ku saseka.* (Sasavona Books 1971:26)
[The Bible is a beautiful book.]

4.2.1.2 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

Words with a voiced alveolar explosive and murmured alveolar explosive from various Xitsonga texts were identified in order to analyse their orthographic scripts. For example, the **voiced alveolar explosive** [d] in the nasal compound “nd” of the words <xitandi> (a residential site) and <ndangu> (to be sated) from Marivate’s drama (1965:15) and Shabangu’s novel (2016:34) have been identified. The **murmured alveolar explosive consonant**; [dʱ] in the words “duma” (well-known) from Nkondo’s drama (1990:39), “dakwile” (to be drunk) from *Vutlhari bya Vutsonga: Vatsonga: A collection of Xitsonga Proverbs* by Sasavona Books (1936:218), and the murmured alveolar explosive; [dʱ] in the nasal compounds of the words <ndhuma>

(well-known) from Ngobeni's short stories (1992:7) and <endhichini> (inside a dish) from Maluleke's novel (1993:22) were identified.

- (a) *Hi le kaya ka Jim Xilovekelo. N'wini wa **xitandi**, Nkul. Dlamini, u tshamerile Xilovekelo. Loko Dlamini a vona Xilovekelo, a n'wi sukela hi marito.* (Marivate 1965:15)
[It is at Jim Xilovekelo's home. Mr Dlamini, the owner of the stand, is waiting for Xilovekelo. When Dlamini saw Xilovekelo, he started quarrelling with him.]
- (b) *Eka leswi Godi a a swi tsakela ngopfu kwale nhoveni loko a khome hi **ndlala**, a ku ri ni mihandzu. Loko o kala a kuma nsinya wa tinyiri kumbe tintoma, a a nga ha ta suka loko khwiri xi nga si tala xi ku **ndangu**!* (Shabangu 2016: 34)
[What Godi liked the most there were the wild fruits in the veld. The moment he discovered a tree of the nyiri or tintoma fruit, he would not stop eating until his tummy was sated.]
- (c) *N'WA-PENI: Ahee, nghenani hala xitangeni. Hina loko ri kala ri rhenga hi nghena lomu tindlwini hi ku chava sweswi swi nga **duma** swo dlaya vanhu.* (Nkondo 1990:39)
[Yes, come inside the kitchen. In the afternoon, we always get indoors because we are afraid of these notorious killings that are well known.]
- (d) *Byala a byi na tlhari.*
- *Loko u **dakwile**, a wu koti ku lwa.* (Sasavona Books 1936:218)
[Beer has no assegai.
- When you are drunk you can't fight.]
- (e) *Mikarhi liya a hi hanya hi ku tichava, kambe hi ri vabi va **ndhuma** va mihlahle.* (Ngobeni 1992: 7)
[During those times we were living in fear, but we were well-known divining bone throwers.]

(f) ... *ivi a phamela **ndh**ichini yo saseka, a teka foroko na mukwana a yisela nguluwe ehokweni ya yona.* (Maluleke 1993:22)

[He then dished out into a nice dish, took a fork and knife to the pig in its styl.]

(g) “*Mhani, tisani xibamu xexo ndzi hetisa thyaka leri! Ndzi nyikeni ndzi **d**laya mbyana leyi hi **ndl**hayo wa makundzumula!*” *Ku vula Vhelaphi loko Godi a hari karhi ku lwa ni ku pfuka lahaya a a lo khuvaxaxa, kona!* (Shabangu 2016: 136)

[“Mother, give me that gun so that I can finish him off! Give me so that I can kill this dog in a cruel manner.” Said Vhelaphi while Godi was still struggling to stand up from where he had fallen helplessly.]

4.2.1.3 THE VOICED ALVEO-LATERAL EXPLOSIVE, [dl] versus THE MURMURED ALVEO-LATERAL, [dlh]

Words with a voiced alveo-lateral explosive and murmured alveo-lateral explosive were identified from various existing Xitsonga literary texts for the purposes of verifying their practical orthographic representations. For example, the **voiced alveo-lateral explosive** [dl] in the nasal compound of the word <nd̩lala> (hunger) in extract (b) of Shabangu’s novel (2016:136) *Ximitantsengele* was identified. Also identified is the **murmured alveo-lateral explosive** [dlh] in the word “**d**laya” (to kill) and the murmured alveo-lateral explosive in the nasal compound of the word <ndl̩hayo> (the act of killing) from extract (g) of Shabangu’s novel (2016:136) titled *Ximitantsengele* .

4.2.1.4 THE VOICED VELAR EXPLOSIVE [g] versus THE MURMURED VELAR EXPLOSIVE [gh]

From various existing Xitsonga literature texts, words with a voiced velar explosive and murmured velar explosive consonant were identified for the purposes of verifying their practical orthographic representations. For example, **the murmured velar explosive** [gh] in the words “gugurhuteka” (groping to find one’s way in the dark) and “magoza” (steps) from a reader titled *A Hi Peleni Nambu: Buku yo Hlaya 7* by Malungana, Magaisa and Mpenyana (2014:48) were identified. The nasal

compound “ng” of the words <tinghozi> (accidents) and <swonghasi> (so much) were also found in Masase and Langa’s language manual (2003:57) and Junod’s folklore (1989:99) have been identified. Also identified was the **voiced velar explosive** [g] found in the nasal compound “ng” in the words <nkatanga> (my dear one), <hungutani> (to reduce or limit), and <nyenga> (to play truant) from Malungana, Magaisa and Mpenyana’s reader (2014:39), *A Hi Peleni Nambu: Buku yo Hlaya 7*.

- (a) *N’wina vakhalabye na vakhegula hi suseni mihlolo,
Mi nga hi tshiki hi **gugurhuteka**. (Malungana, Magaisa & Mpenyana 2014:48)
[Guide us you old men and women,
Don’t let’s grope to find our way out of darkness.]*
- (b) *I mali yi ndzi susumetaka leswaku ndzi teka **magosa** ya vusathana. (Malungana,
Magaisa & Mpenyana 2014:35)
[It is money that drives me to take such evil and satanic steps.]*
- (c) *Swi tlhela swi vanga na **tinghozi** to tala emapatwini. (Masase & Langa 2003:57)
[It also causes a lot of accidents on the roads.]*
- (d) *Wansati wo xonga **swonghasi**,
A a tlunya ni tilo hi ku saseka wansati loyi. (Junod 1989:99)
[A very beautiful woman,
The beauty of this woman was more than the beauty of the sky.]*
- (e) *Nkatanga, ndza kombela. **Hungutani** ku kukutlela masiha.
(Malungana, Magaisa & Mpenyana 2014:38)
[Please my dear one, I beg you. Limit your habit of drinking liquor.]*
- (f) *Va pfa va **nyenga** exikolweni va ya tima torha.
(Malungana, Magaisa & Mpenyana 2014:39)
[They sometimes dodge from school to engage in drinking.]*

4.2.1.5 THE VOICED ALVEOLAR AFFRICATE, [dz] versus THE MURMURED ALVEOLAR AFFRICATE, [dzɦ]

Words with a voiced alveolar affricate and murmured alveolar affricate have been identified from various existing Xitsonga literature in order to verify their practical representations. For example, the **voiced alveolar affricate**; [dz] found in the nasal compound of the word <nandzu> (an offence/crime/sin) from the Evangelical Presbyterian Church hymn book (1998:7) titled *Tinsimu ta Vakriste*. The **murmured alveolar affricate** [dzɦ] found in the words “dzumbile” (having whiled away time) in Shabangu’s novel (2008:156), “gadzile” (to rest in the middle of a beer drink) in Magagane’s novel (1993:37), and also found in the nasal compounds of the words <ndzheko> (a scooping calabash) in Magagane’s novel (1993:37), <ndzhutini> (in prison) in Shabangu’s drama (2008:108), and <ndzhaku> (behind) in Miyen’s novel (1988:53) were also been identified.

- (a) BAYIZANI: *Hayi, ku dzumba hi **dzumbile**. Ho twa yo nyoka yi lumaka. Phela yi famba hi marhumbu.* (Shabangu 2008:156)
[We have stayed well. We are just hungry. One cannot survive without getting something to eat.]
- (b) *Bya yena a byi kerwa hi **ndzheko** lowu nga rhungeleriwa na hi vuhlalu. A a tlhela a khateriwa byona no funengeteleriwa byona loko a **gadzile** hikuva phela yena a a ri mukon’wana wa tiko.* (Magagane 1993:37)
[His was scooped by a calabash which was decorated by beads. When he was still resting in the middle of a beer drink, his drink was properly covered because he was a real son-in-law of the village.]
- (c) *U nga tshuki u tlanga hi vito ra Hosi, Xikwembu xa wena, hikuva Hosi yi nga ka yi nga tshiki **nandzu** wa la’ tlangaka hi vito ra yona.*
(Evangelical Presbyterian Church 1998:7)

[You shall not take the name of the Lord your God in vain, for the Lord will not hold him guiltless who takes His name in vain.]

- (d) MADAMBI:... *a swi nge jiki ni kan'we, hi mina ndzi dlayeke. Xikwembu a xi ndzi pfune leswaku ni loko ndzi ri kwale **ndzhutini** wa vavanuna laha ndzi nga ta va ndzi ri kona, a xi ndzi nyiki matimba ya ku khongela vusiku ni nhlekanhi leswaku xidyoho xa mina xi rivaleriwa eka siku ra makumu ya ku hanya ka mina.* (Shabangu 2008:108)

[... nothing will change, I am the one who killed. May God help me so that wherever I will be in prison, let Him give me strength to pray day and night so that my sin could be forgiven in the last days of my life.]

- (e) *Magezi, n'wana loyi a nga na le **ndzhaku** ni le mahlweni handle ka mina na wena. Lomu matikweni ya vambe lomu hi nga kona, ku hava ni un'we loyi a nga n'wi nyikaka switsundzuxo swa vutomi tani hi wena kokwa wa yena.* (Miyen 1988:53)

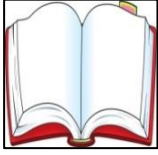







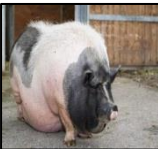

[Magezi, this child has no one to look up to except me and you. In these foreign countries where we find ourselves, there is not a single one who can advise him about life like you can most probably do as his uncle.]

4.2.2 DATA COLLECTED FROM XITSONGA-SPEAKING PEOPLE WHO CAN NEITHER WRITE NOR READ THE XITSONGA LANGUAGE

4.2.2.1 INTRODUCTION

This section presents data collected through interviewing Xitsonga-speaking people who can neither read nor write Xitsonga. Participant #1 is from Giyani, Participant #2 is from Elim, Participant #3 is from Ritavi, Participant #4 is from Malamulele and Participant #5 is from the Busbuckridge area. These participants were asked to give

Xitsonga names for the objects given below or they were asked to give the correct Xitsonga missing words in the sentences given below.

- (a)  *Xana xi vuriwa yini hi Xitsonga xilo lexi?*
(What is this called in Xitsonga?)
- (b)  *Nyika vito rin'wana ro vula **tatana**.*
(Give another name for **father**)
- (c)  *Loko murhi wu nga nyanganyi hi ri wa?*
(When medicine is not sweet, it is?)
- (d)  *Loko mbuti yi tswala ximbutana hi ri yo (hlanta, beka).*
(When a goat gives birth, we say it)
- (e)  *Loko dyambu ri pela mooha wu fanele ku lumeka yini?*
(When the sun sets, what should a motor car switch on?)
- (f)  *Ku hlamusela ekhoto leswi nga voniwa i ku nyika?*
(To explain in court what one has seen is to give?)
- (g)  *Vito rin'wana ro vula xigiya i?*
(Another name for a knobkerrie is?)
- (h)  *Vatirhi lava vuyaka emakaya hi Khisimusi va vuriwa?*
(Workers coming home during Christmas time are?)
- (i)  *Vito rin'wana ro vula honci hi Xitsonga i?*
(Another name for a pig in Xitsonga is?)
- (j)  *Xana xihari lexi xi vuriwa yini hi Xitsonga?*
(What is this animal called in Xitsonga?)

(k)



Movha wu fanele ku rhanga wu ... nhjini wu nga si famba.

(A car is supposed to run its engine before it could move)

(l)



Rito rin'wana ro vula xitlali hi Xitsonga i

(Another name for granary in Xitsonga is ..?)

(m)



Loko munhu a nwile, ivi a nga ha koti ku tilawula hi ri u

(A person who is unable to control himself due to liquor is ...)

(n)



N'wana u dyile mukapu, xikhwidyana xi lo ... hi ku xurha.

(The baby has eaten soft porridge and the tummy is so full)

(o)



Munhu wo tiveka ngopfu tani hi Mandela hi ri u ni

(A well-known person like Mandela is said to be ..?)

(p)



Makanyi yo (tsana, dzana) loko ya wela hanshi hi ku vupfa.

(When the marula fruit fall when ripe, we say they)

(q)



N'wana u beberiwa hi

(A child is carried on the back by a ..?)

(r)



Xihahampfhuka xi kongoma wa malwandle.

(The aeroplane is heading for overseas countries)

(s)



Xana nyoxi yi luma hi yini?

(What does a bee use to sting?)

(t)



Rito rin'wana ro vula ku susumetana ka vanhu i ku

(Another word for people pushing each other is ..?)

(u)



Loko vanhu va dlidlimbetana hi ri ku ni nsusumetano kumbe

(When people are pushing each other we say there is ..?)

4.2.2.2 PARTICIPANTS' RESPONSES

QUESTION A

All the participants named the object in Question A as “buku” while clearly articulating the first consonant as a **murmured bilabial explosive** [bʰ] and the last consonant as a *voiceless velar explosive* [k].

QUESTION B

All participants gave another name for “tatana” (father) as “bava” while articulating the first consonant as a *voiced bilabial explosive* [b] and the last consonant as a *voiced bilabial fricative* [β].

QUESTION C

In response to this closed-ended question, all participants gave the word for the opposite of “sweet” as “bava” while clearly pronouncing the first consonant as a *murmured bilabial explosive* [bʰ] and articulating the ultimate consonant as a *voiced bilabial fricative* [β].

QUESTION D

In response to this closed-ended question, all participants gave the word for a “goat giving birth” as “beka” while clearly pronouncing the first consonant as a *murmured bilabial explosive* [bʰ] and articulating the ultimate consonant as a *voiced velar explosive* [k].

QUESTION E

In response to the closed-ended question (e), all participants gave the answer for “lights” as “timboni” while clearly pronouncing the first consonant as a *voiceless*

alveolar explosive [t], the second as a *voiced bilabial nasal explosive* [mb] and the last consonant as a *voiced alveolar nasal* [n].

QUESTION F

In response to the closed-ended question (f) all the participants except for Participant #4, gave the answer to this question as “vumbhoni” while clearly articulating the first consonant as a *voiced bilabial fricative* [β], the second as a *murmured bilabial nasal explosive* [mbh], and the ultimate consonant as a *voiced alveolar nasal* [n].

QUESTION G

All the participants, with the exception of Participant #2 who gave the answer as “nhonga”, gave another name for a “knobbed club” as “xigombo” and they clearly pronounced the first consonant as a *voiceless prepalatal fricative* [ç], the second as a *murmured velar explosive* [gh], and the last consonant as a *voiced bilabial explosive nasal*; [mb].

QUESTION H

All participants completed the sentence by providing the name for “workers from mines going home during Christmas time” as “magayisa”. They clearly pronounced the first consonant as a *voiced bilabial nasal* [m], the second consonant as a *murmured velar explosive* [gh], the third consonant as a *voiced palatal semi-vowel* [j], and the last consonant as a *voiceless alveolar fricative* [s].

QUESTION I

All participants gave another word for a pig as “nguluve” while clearly pronouncing the first consonant of the word as a *voiced alveolar nasal explosive* [ŋg] and the second consonant as a *voiced alveo-lateral fricative* [l] while the ultimate consonant was pronounced as a *voiced bilabial fricative* [β].

QUESTION J

All participants named the picture of the animal as “nghala” while articulating the first consonant as a *murmured alveolar nasal explosive* [ŋgh] and the ultimate consonant as a *voiced alveo-lateral fricative* [l].

QUESTION K

All participants completed the sentence by giving the missing word for “the idling of a car” as “duma”. They clearly pronounced the first consonant as a *murmured alveolar explosive* [dɦ] and the ultimate consonant as a *voiced bilabial nasal* [m].

QUESTION L

In answering this question, all participants completed the sentence by providing the word “dulu” as a synonym of a “granary” and clearly pronounced the first consonant as a *murmured alveolar explosive* [dɦ] and the ultimate consonant as a *voiced alveo-lateral fricative* [l].

QUESTION M

All participants, except for Participant #1 who gave the answer as “xurhile”, gave the answer for “being unable to control oneself because of liquor” as “dakwile” to complete the sentence while clearly pronouncing the first consonant as a *murmured alveolar explosive* [dɦ], the second consonant as a *voiceless partially velar explosive*; [kw] and the last consonant as a *voiced alveo-lateral fricative* [l].

QUESTION N

In response to this question, all participants completed the sentence by giving the word “ndangu” as the missing word and clearly pronounced the first consonant as a *voiced alveolar nasal explosive* [nd] and the second consonant as a *voiced velar nasal explosive* [ŋg].

QUESTION O

All participants completed the sentence by giving the missing word as “ndhuma” for “being well-known” and clearly pronounced the first consonant as a *murmured alveolar nasal explosive* [ndh̥] and the ultimate consonant as a *voiced bilabial nasal* [m].

QUESTION P

All participants completed the sentence by providing the correct missing word as “dzana” while clearly articulating the first consonant as a *murmured alveolar affricate* [dz̥h̥] and the ultimate consonant as a *voiced alveolar nasal* [n].

QUESTION Q

All participants completed the sentence by providing the correct missing word as “dzovo” while clearly articulating the first consonant as a *murmured alveolar affricate* [dz̥h̥] and the last consonant as a *voiced bilabial fricative* [β].

QUESTION R

All participants completed the sentence by providing the word “ndzhandzheni” as the missing word and clearly pronounced the first and second consonants as a *murmured alveolar nasal affricate* [ndz̥h̥] and the ultimate consonant as a *voiced alveolar nasal* [n].

QUESTION S

All participants gave the answer for the sting of a bee as “ndzhombo” while clearly articulating the first consonant as a *murmured alveolar nasal affricate* [ndz̥h̥] and the ultimate consonant as a *voiced bilabial nasal explosive* [mb].

QUESTION T

All the participants gave the verb for a stampede of people as “dlidlimbetana” while clearly pronouncing the first and second consonants as a *murmured alveo-lateral explosive* [dlh].

QUESTION U

All the participants gave the noun for a stampede of people as “ndlhindhimbetano” while clearly pronouncing the first and second consonants as a *murmured alveo-lateral nasal explosive* [ndlh].

4.2.3 DATA COLLECTED FROM XITSONGA-SPEAKING PEOPLE WHO CAN READ THE XITSONGA LANGUAGE

4.2.3.1 INTRODUCTION

This section presented data collected through interviewing Xitsonga-speaking participants who can read the Xitsonga language. Participant #6 is an educator at a primary school in Giyani, Participant #7 is a Grade 12 learner at a high school in Nkowankowa, Participant #8 is a cleaner at Elim Hospital, Participant #9 is a clerk at high school in Bushbuckridge, and Participant #10 is a news reader at one of the Xitsonga Radio Stations in South Africa. These participants were asked to read aloud the following texts extracted from various existing Xitsonga literature books so that the researcher could detect how they pronounce the underlined speech sound of each word written in bold.

- (a) “He **bava**, xana mi hi vula swiphuva ku nga si hela na vhiki hi mi hlawurile?”
(Malungana 2005:3)
[Hey old man, do you call us stupid yet we have just elected you?]

- (b) *Bibele i **b**uku ya ku saseka.* (Sasavona Books 1971:26)
[The Bible is a beautiful book.]
- (c) *U nga voni nxakwarhi ku vangama ka wona, endzeni ka wona wa **b**ava.*
- *Swa le handle swa kanganyisa.* (Sasavona Books 1936:188)
[Do not be deceived by the shining *nxakwarhi* fruit, it is bitter inside.
- Appearances are deceptive.]
- (d) *U kuma swiluvoa swa tin'hwembe swi balekile namixo,
Loko wo kuma miroho ya kona yi kandzeriwe hi rininga,
U nga tiluma na tintiho loko u karhi u phyatsa kunene,
Guxe na **b**angala u kuma swi phumile emasin'wini,
Mikhusu u kuma yi khusiwile masaka ya tsandzeka no hefemula.*
(Malungana & Ngobeni 1997:62)
[You find cucurbits flowers having sprouted in the morning,
If you can find stamped ground-nuts being added to the greens,
You can even bite your fingers when you are busy sucking the sauce,
You find guxe and bangala budding new shoots in the fields,
You find bags and bags filled with dried vegetables all over the palce.]
- (e) *Hiloko xikan'wekan'we a tima **t**imb^oni ta movha, i^ovi a nghanisa movha wa yena
kahle ejaratani ku ri hava huwa lero ni mukhegula hambileswi a ri ni nkelunkelu a
nga twangi nchumu.* (Shabangu 2015:118)
[He at once switched off the lights of his car, and then drove the car into the
yard without any noise whatsoever and, as a result; the old woman did not
hear anything though she was not yet asleep.]
- (f) *RISENGA: Mina a ndzi lavi ku ti nghena hikuva mundzuku ka siku ndzi nga
tikuma ndzi yime ebokisini ndzi nyika **v**umb^oni bya vunwa. Ndzi vona
leswaku swa antswa hi hambana ka ha ri nkarhi.* (Makgoana 1975:45)

[I do not want to get involved because I do not want to go and give false evidence in court. I feel it is better for us to part ways while there is still time.]

- (g) *Xigayu a xi ri ekule, mpfhuka wo ringana timayili tinharhu. Hikwalaho ka vukule, a ndzi gayisa mavele kan'we hi vhiki. (Baloyi 1953:11)*
[The mill was far away, a distance of about three miles. Because of this distance, I used to get the mealies grounded once a week.]
- (h) *Siku rin'wana ti dlaya nyarhi. Kutani mpfundla wu endla manu, wu suka wu ya tlhometela mitwa ya nungu ehenhla ka mahanti, wu lava ni nhonga ya xigombo. Wu famba wu ya fika laha tinghala a ti dya kona, kutani wu sungula ku ti himetela hi xigombo. (Sasavona Books 1965:35)*
[One day, they killed a buffalo. The hare then hatched a plan. It took the thorns of a porcupine and stuck them on the bark of a tree, and looked for a knobkerrie. Then the hare went to where the lions were feeding, and started beating them with the knobbed club stick.]
- (i) *N'WA-PENI: Ahee, nghanani hala xitangeni. Hina loko ri kala ri rhenga hi nghena lomu tindlwini. Leswi ku nga na sweswi swi nga duma swo dlaya vanhu, hina ha chava. (Nkondo 1990:39)*
[Yes, come inside the kitchen. In the afternoon, we always go indoors. We are afraid of these notorious killings that are well known.]
- (j) *Tindlunyana ta kona a to pima ku va munhu a khokhovela. Vutsongo bya tona a wonge i madulu kumbe switlati swo chela mavele hi nkarhi wa ntshovelo. (Khosa 1990:13)*
[The huts were so small that they only allowed one person to crawl under. Their small sizes were like granaries for storing mealies during harvest time.]

- (k) *Byala a byi na tlhari.*
- Loko u ***dakwile***, a wu koti ku lwa. (Sasavona Books 1936:218)
[Beer has no assegai.
- When you are drunk you can't fight.]
- (l) *Hi le kaya ka Jim Xilovekelo. N'wini wa ***xitandi***, Nkul. Dlamini, u tshamerile Xilovekelo. Loko Dlamini a vona Xilovekelo, a n'wi sukela hi marito.* (Marivate 1965:15)
[It is at Jim Xilovekelo's home. The owner of the stand, Mr Dlamini, is waiting for Xilovekelo. When Dlamini saw Xilovekelo, he started quarrelling with him.]
- (m) *Mikarhi liya a hi hanya hi ku tichava, kambe hi ri vabi va ***ndhuma*** va mihlahle.* (Ngobeni 1992: 7)
[During those times we were living in fear, but we were well-known divining bone throwers.]
- (n) BAYIZANI: *Hayi, ku ***dzumba*** hi ***dzumbile***. Ho twa yo nyoka yi lumaka. Phela yi famba hi marhumbu.* (Shabangu 2008:156)
[We have stayed well. We are just hungry. One cannot survive without getting something to eat.]
- (o) MADAMBI: *... a swi nge jiki ni kan'we, hi mina ***ndzi*** dlayeke. Xikwembu a xi ndzi pfune leswaku ni loko ndzi ri kwale ***ndzhutini*** wa vavanuna laha ndzi nga ta va ndzi ri kona, a xi ndzi nyiki matimba ya ku khongela vusiku ni nhlekanhi leswaku xidyoho xa mina xi rivaleriwa eka siku ra makumu ya ku hanya ka mina.* (Shabangu 2008:108)
[... nothing will change, I am the one who killed. May God help me so that wherever I will be, in prison, let Him give me strength to pray day and night so that my sin would be forgiven in the last days of my life.]
- (p) *Bya yena a byi keriswa hi ***ndzheko*** lowu nga rhungeleriwa na hi vuhlalu. A a tlhela a khateriwa byona no funengeteleriwa byona loko a ***gadzile*** hikuva phela yena a a ri mukon'wana wa tiko.* (Magagane 1993:37)

[His beer was scooped by a calabash which was decorated by beads. When he was still resting in the middle of a beer drink, his drink was properly covered because he was a real son-in-law of the village.]

- (q) *U nga tshuki u tlanga hi vito ra Hosi, Xikwembu xa wena, hikuva Hosi yi nga ka yi nga tshiki nandzu wa la' tlangaka hi vito ra yona.*

(Evangelical Presbyterian Church 1998:7)

[You shall not take the name of the Lord your God in vain, for the Lord will not hold him guiltless who takes His name in vain.]

- (r) *Magezi, n'wana loyi a nga na le ndzhaku ni le mahlweni handle ka mina na wena. Lomu matikweni ya vambe lomu hi nga kona, ku hava ni un'we loyi a nga n'wi nyikaka switsundzuxo swa vutomi tani hi wena kokwa wa yena. (Miyen 1988:53)*

[Magezi, this child has no one to look up to except me and you. In these foreign countries where we find ourselves, there is not a single one who can give him advice about life like you can do as his uncle.]

- (s) *"Mhani, tisani xibamu xexo ndzi hetisa thyaka leri! Ndzi nyikeni ndzi dlaya mbyana leyi hi ndlhayo wa makundzumula!" Ku vula Vhelaphi loko Godi a ha ri karhi ku lwa ni ku pfuka lahaya a a lo khuvaxaxa, kona! (Shabangu 2016: 136)*

[Mother, give me that gun so that I can finish him off! Give me so that I can kill this dog in a cruel manner." Said Vhelaphi while Godi was still struggling to stand up from where he had fallen helplessly.]

4.2.3.2 PARTICIPANTS' RESPONSES

EXTRACT A

All participants pronounced the underlined consonant of the word bava (father) as a *voiced bilabial explosive* [b].

EXTRACT B

All participants pronounced the underlined consonant of the word buku (a book) as a *murmured bilabial explosive* [bʰ].

EXTRACT C

All participants pronounced the underlined consonant of the word bava (to be bitter) as a *murmured bilabial explosive* [bʰ].

EXTRACT D

All participants pronounced the underlined consonant of the word bangala (a type of a traditional vegetable) as a *voiced bilabial explosive* [b].

EXTRACT E

All participants clearly pronounced the underlined consonant of the word mboni (lights) as a *voiced bilabial nasal explosive* [mb].

EXTRACT F

All participants pronounced the underlined consonant of the word mbhoni (evidence) as a *murmured bilabial nasal explosive* [mbʰ].

EXTRACT G

All participants pronounced the underlined consonants of the second syllable of the word gigayu (a mill) and of the first syllable of the word gayisa (to grind mealies) as a *murmured velar explosive* [gʰ].

EXTRACT H

All participants pronounced the underlined consonant of the words nungu (porcupine), nhonga (a stick) and sungula (to start) as a *voiced velar nasal explosive* [ŋg].

With regards to the underlined consonant of the second word *tinghala* (lions) of the same extract, all participants pronounced it as a *murmured velar nasal explosive* [ngʰ].

EXTRACT I

All participants clearly pronounced the underlined consonant of the word *duma* (well-known) as a *murmured alveolar explosive* [dʰ].

EXTRACT J

All participants pronounced the underlined consonant of the word *madulu* (granaries) as a *murmured alveolar explosive* [dʰ].

EXTRACT K

All participants pronounced the underlined consonant of the word *dakwile* (drunk) as a *murmured alveolar explosive* [dʰ].

EXTRACT L

All participants pronounced the underlined consonant of the word *xitandi* (a residential site) as a *voiced alveolar nasal explosive* [nd].

EXTRACT M

All participants pronounced the underlined consonant of the word *ndhuma* (widely known) as a *murmured alveolar nasal explosive* [ndʰ].

EXTRACT N

All participants pronounced the underlined consonant of the word *dzumba/dzumbile* (while away time) as a *murmured alveolar affricate* [dzʰ].

EXTRACT O

All participants pronounced the underlined consonant of the word ndzhutini (gaol) as a *murmured alveolar nasal affricate* [ndzh].

EXTRACT P

All participants clearly pronounced the underlined consonant of the word ndzheko (a scooping calabash) as a *murmured alveolar nasal affricate*; [ndzh] and pronounced the underlined consonant of the word gadzile as a *murmured alveolar affricate* [dzh].

EXTRACT Q

All participants clearly pronounced the underlined consonant of the word nandzu (sin/crime/offence) as a *voiced alveolar nasal affricate* [ndz].

EXTRACT R

All participants pronounced the underlined consonant of the word ndzhaku (behind) as a *murmured alveolar nasal affricate* [ndzh].

EXTRACT S

All the participants clearly pronounced the underlined consonant of the word dlaya (to kill) as a **murmured alveo-lateral explosive** [dl] and also pronounced the second consonant of the nasal compound of the word ndlhayo as a **murmured alveo-lateral explosive**.

4.2.4 DATA COLLECTED FROM EDUCATORS WHO ARE TEACHING XITSONGA AT PRIMARY SCHOOL

4.2.4.1 INTRODUCTION

This section presents data collected through interviewing Xitsonga educators at primary school level. Participant #11 is a Grade 2 Xitsonga educator at a primary school in the Ritavi Circuit in the Mopani District of the Limpopo Province.

Participant #12 is a Grade 1 Xitsonga educator at a primary school in the Man'ombe Circuit in the Mopani District of the Limpopo Province. Participant #13 is a Grade 2 Xitsonga educator at the Hlanganani Circuit in the Vhembe District of the Limpopo Province. The educators were asked to write the following pairs of words which were dictated to them by the interviewee. The educators were also asked to explain in detail how they can teach learners how to correctly spell them taking into account the similarities and dissimilarities in the pronunciation of the underlined consonants in each pair.

(a.1) [bɔŋga] (to thank or praise)

(a.2) [bhɔŋga] (to bellow)

(b.1) [bhaβa] (to be bitter)

(b.2) [baβa] (father)

(c.1) [timboni] (lights)

(c.2) [timbhoni] (witnesses)

(d.1) [mbhulo] (to be cunning)

(d.2) [mbulavulo] (a talk)

(e.1) [ghajɔ] (grinding machine)

(e.2) [katiŋga] (roast)

(f.1) miɛŋgɛ] (feet)

(f.2) [ghɛɛkɛɛ] (a type of bird)

(g.1) [dhambiketa] (to send misfortune by magic)

(g.2) [dhodombana] (to struggle with in a fight)

(h.1) [ndhɔmba] (bad taste in the mouth, especially in the morning)

(h.2) [ghɔndɔɔ] (a helmet)

- (i.1) [**dz**umba] (to rest during heat of day)
(i.2) [**dz**ima] (to thrust or plant; pitch a tent)
- (j.1) [**ndz**ima] (part of something or field under cultivation)
(j.2) [**ndzf**umba] (sound of musical instruments)
- (k.1) [**dl**aya] (to kill)
(k.2) [**ndl**hayo] (the act of killing)

4.2.4.2 PARTICIPANTS' RESPONSES

PAIR A: [**b**ɔŋga], [**bh**ɔŋga]

All participants spelt the words in pair (a) as <bonga> (to thank or praise) in (a.1) and “bonga” (the bellowing of a bull) in (a.2).

PAIR B: [**bh**aβa], [**b**aβa]

All participants spelt the words in this pair as “bava” (to be bitter) in (b.1) and <bava> (father) in (b.2).

PAIR C: [**tim**boni], [**timb**honi]

All participants spelt the words in this pair as “timboni” (lights) in (c.1) and <timbhoni> (witnesses) in (c.2).

PAIR D: [**mb**fulo], [**mb**ulavulo]

In this pair, all participants spelt the words as <mbhulo> (to be cunning) in (d.1) and “mbulavulo” (a talk) in (d.2).

PAIR E: [ighajɔ], [ghɔja]

In this pair, all participants spelt the words as “xigayo” (grinding machine) in (e.1) and <goya> (a wild cat) in (e.2).

PAIR F: [milɛŋgɛ], [ŋghɛlekɛɛ]

In this pair, all participants also spelt the words as <milenge> (feet) in (f.1) and <nghelekele> (a type of bird) in (f.2).

PAIR G: [dhambiketa], [dhɔɔmbana] (to struggle with in a fight)

All participants in this pair spelt the words as “dambiketa” (to send misfortunes by magic) in (g.1) and “dodombana” (to struggle with in a fight) in (g.2).

PAIR H: [ndhɔmba], [ghɔndɔɔ]

All participants in this pair spelt the words as “ndhomba” (bad taste in the mouth especially in the morning) in (h.1) and “gondolo” (a helmet) in (h.2).

PAIR I: [dzhumba], [dzhima]

All participants in this pair spelt the words as “dzumba” (to rest during heat of day) in (i.1) and “dzima” (to thrust or plant; pitch a tent) in (i.2).

PAIR J: [ndzima], [ndzhumba]

All participants in this pair spelt the words as <ndzima> (part of something or field under cultivation) in (j.1) and “ndzhumba” (sound of musical instruments) in (j.2).

PAIR K: [dlaja], [ndlhaja]

All participants in this pair spelt the words as <dlaya> (to kill) in (k.1) and “ndlhayo” (the act of killing) in (k.2).

4.2.5 DATA COLLECTED FROM PEOPLE WHO ARE XITSONGA EDUCATORS AT HIGH SCHOOL LEVEL

4.2.5.1 INTRODUCTION

This section presents data collected through in-depth interviews of Xitsonga educators at high school level. Participant #14 is a Head of Department of Xitsonga at a high school in the Shamavunga Circuit of the Mopani District in the Limpopo Province. Participant #15 is a Xitsonga senior educator at a high school in the Shamavunga Circuit of the Mopani District in the Limpopo Province. Participant #16 is a junior Xitsonga educator at one of the high schools at Hlanganani in the Vhembe District of the Limpopo Province. The group was asked to edit or mark the following pairs of sentences, which had supposedly been written by a Grade 10 learner, in order to assist the learner with the correct spelling of the words written in bold.

- (a.1) *Tiyisela u nwa murhi lowu hambiloko wu **bava**, wu ta ku hanyisa.*
[Just drink this medicine even though it is bitter, it will cure you.]
- (a.2) *Magezi wo kaneta ntsena, hi yena **bhava** wa n'wana loyi.*
[Magezi is just denying, he is the father of this child.]
- (b.1) *Mbuti ya ka hina yi ta **beka** mundzuku.*
(Our goat will give birth tomorrow)
- (b.2) *Mufana loyi a nga swi koti ku vhika, hikwalaho wa **bheka**.*
[This boy is not able to parry blows, that is why he is beatable.]
- (c.1) *Mooha wu lumekile **timboni** to paka hi tona.*
[The car has switched on the park lights.]
- (c.2) *Va vitanile **timbhoni** to tala ku ta tenga nandzu.*
[They have summonsed many witnesses to the trial.]

- (d.1) *Hahani Vhakisa a hi **rigombo** ra yena.*
[My aunt is very quarrelsome.]
- (d.2) *U hundzile a **tighomola** nhloko hi xitulu hi ku chava maphorisa.*
[He knocked himself on the head because he was afraid of the police.]
- (e.1) *Va sungurile ku yimbelela **tingoma** to saseka.*
[They started singing beautiful songs.]
- (e.2) *Va sungurile ku ba **tinghoma** ni swingomana.*
[They started playing drums and small drums.]
- (f.1) *Kokwana u xavile homu ya **dhuna**.*
[Grandpa has bought a bullock.]
- (f.2) *Varisi va **dumba** tihomu ku ya eku riseni.*
[The shepherds are driving the cattle.]
- (g.1) *Va sungurile ku n'wi **duduzela** hikwalaho ka ntirho wa yena.*
[They started praising him because of his good work.]
- (g.2) *N'anga yi veka murhi wa yona eka **ndumba**.*
[The witchdoctor stores maedicine in the small hut.]
- (h.1) *Ndzi sungula ku **dzhuka** hikuva se ka hisa.*
[I am starting to perspire because of the heat.]
- (h.2) *U **dziva** milomo hileswi a nga kwata.*
[He purses his lips because he is angry.]
- (i.1) *Masenyani u humesile **ndzovolo** wo ringana khume ra tihomu.*
[Masenyani paid dowry to the tune of ten cattle.]
- (i.2) *U nga vulavuli ndzhukano exikarhi ka lavakulu.*
[Don't use vulgar language in front of elderly people.]
- (j.1) *Ku **dlayiwile** nyoka laha nkeleni lowuya.*
[A snake was killed in that hole.]
- (j.2) *Ku vile na **ndlayo** wa nyoka lahaya nkeleni)*
[There was kill of a snake in that hole.]

4.2.5.2 PARTICIPANTS' RESPONSES

PAIR A: [bɦaβa], [baβa]

In this third pair, all participants did not change the word “bava” in (a.1) but changed the word “bhava” to <bava> in (a.2).

PAIR B: [bɛka], [bɦɛka]

With regards to this fourth pair, all participants changed the word “bheka” to [bɛka] in (b.1) and left “beka” in (b.2) unchanged.

PAIR C: [mabala], [mabɦalana]

In this pair of sentences, all participants changed the word “mabhala” in (c.1) to “mabala”. They also changed the word “mabhalana” to <mabalana> in (c.2).

PAIR D: [rɦgɦɔmbɔ], [tɦgɦɔmɔla]

In this pair of sentences, all participants did not change the word “rigombo” in (d.1) but changed the word “tighomola” to <tigomola> in (d.2).

PAIR E: [tɦgɦɔma], [tɦgɔma]

In this pair of sentences, all participants changed the word <tingoma> in (e.1) to <tinghoma>. They also changed the word <tinghoma> to <tingoma> in (e.2).

PAIR F: [dɦuna], [dɦumba]

In this group of sentences, all participants changed the word “dhuna” in (f.1) to “duna” while leaving the word “dumba” unchanged in (f.2).

PAIR G: [ndunduzela], [ndhumba]

In this pair of sentences, all participants changed the word “duduzela” in (g.1) to “ndunduzela” and also changed the word “ndumba” to “ndhumba” in (g.2).

PAIR H: [dzhuka], [dzhɔwa]

In this pair of sentences, all participants changed the word “dzhuka” in (h.1) to “dzuka” and left the word “dzowa” unchanged in (h.2).

PAIR I: [ndzɔβɔkɔ], [ndzɔhukanɔ]

In this pair of sentences, all participants changed the word “ndzukano” in (i.2) to “ndzhukano” while leaving the word “ndzovolo” unchanged in (i.1).

PAIR J: [dlɔajiwile], [ndlɔajɔ]

In this pair of sentences, all participants left the word “dlayiwile” unchanged in (j.1) while changing the word “ndlayo” to “ndlhayo” (j.2).

4.2.6 DATA COLLECTED FROM PEOPLE WHO ARE XITSONGA LECTURERS AT UNIVERSITY LEVEL

4.2.6.1 INTRODUCTION

This section presents data collected through in-depth interviews of Xitsonga lecturers at various universities in South Africa. The group was asked to edit or mark the following pairs of sentences which had supposedly been written by a university student, in order to assist the student with the correct spelling of the words written in bold.

- (a.1) *Tiyisela u nwa murhi lowu hambiloko wu **bava**, wu ta ku hanyisa.*
[Just drink this medicine even though it is bitter, it will cure you.]
- (a.2) *Magezi wo kaneta ntsena, hi yena **bhava** wa n'wana loyi.*
[Magezi is just denying, he is the father of this child.]
- (b.1) *Mbuti ya ka hina yi ta **beka** mundzuku.*
[Our goat will give birth tomorrow.]
- (b.2) *Mufana loyi a nga swi koti ku vhika, hikwalaho wa **bheka**.*
[This boy is not able to parry blows, that is why he is beatable.]
- (c.1) *U humile **timbhonya** hikwalaho ka piki na foxolo.*
[He has blisters because of working with a pick and shovel.]
- (c.2) *Vakhegula va rhandza ngopfu **mbhowa** wa tin'hwembe.*
[Old women like pumpkins greens.]
- (d.1) *Nsimu ya yena yi tele hi **dhamba** na muxiji ntsena.*
[His field is full of the damba and muxiji traditional vegetables.]
- (d.2) *Ndzi tsakile hikuva n'wana wa mina se sungula ku **dheya** manuku.*
[I am happy because my child has now started to walk.]
- (e.1) *Mufana loyi i **dendefu** ro hetelela, u tsandziwa hi ku fambisa muti.*
[This boy is very stupid; he fails to run his family.]
- (e.2) *Ta vuya masiku lama **ePalamendhe** kwale Kapa.*
[Things are happening nowadays in Parliament in Cape Town.]
- (f.1) *Muvatli u **ghuba** nkombe wa yena hi mbatlo.*
[The carpenter is carving his wooden spoon with a carving tool.]
- (f.2) *Masocha ya sungurile ku **giya** loko va hlurile.*
[The soldiers started to dance when they had conquered.]
- (g.1) *Muvatli u xavile **ngubo** wo vatla hi wona.*
[The carpenter has bought a carving tool to carve with.]
- (g.2) *Tatana u ndzi xaverile **tintanghu** tintshwa.*
[My father has bought new shoes for me.]

- (h.1) *Tinhlolo ta n'anga ya yena ti fe **dzhenga**.*
[The divining bones of his diviner have failed.]
- (h.2) *Se va kongome etlhello ra **dzonga** wa tiko.*
[They are now facing the southern part of the country.]
- (i.1) *Ndzi ta ya ekaya hi nkarhi wa **dzenga** loko ku nga ha hisi.*
[I will go home in the afternoon when it is no longer hot.]
- (i.2) *Wa ndzi karhata hi **rilondzo** ra wena, ndzi ta ku nyika mali ya yena.*
[You are frustrating me with your zealousness, I will give you your money.]
- (j.1) *Ku **dlayiwa** vanhu vo tala lahaya bulohweni.*
[A lot of people are being killed at that bridge.]
- (j.2) *Ku na **ndlayo** wa vanhu vo tala lahaya bulohweni)*
[The is a lot of killing of people at that bridge.]

4.2.6.2 PARTICIPANTS' RESPONSES

PAIR A: [bɦaβa], [baβa]

In this first pair, all participants did not change the word “bava” in (a.1). With regards to the word “bhava” in (a.2), all participants changed it to <bava> except Participant 16 who changed it to “mbava”.

PAIR B: [bεka], [bɦεka]

In this pair, all the participants left the word “beka” in (b.1) unchanged except for Participant 16 who changed it to “mbeka”. With regards to the word “bheka” in (b.2), all participants changed it to “beka”.

PAIR C: [timbɦɔŋja], [mbɔwa]

In this pair of sentences, all participants changed the word “timbonya” in (c.1) to “timbhonya”. They also changed the word “mbhowa” to “mbowa” in (c.2).

PAIR D: [dʰiamba], [dʰiɛja]

In this pair of sentences, all participants changed the word “dhamba” in (d.1) to “damba” (type of traditional vegetable) and left the word “deya” unchanged in (d.2).

PAIR E: [dʰiendefu], [palamendʰiɛ]

In this pair of sentences, all participants left the words “dendefu” and “palamendhe” in (e.1) and in (e.2) respectively unchanged.

PAIR F: [gʰuba], [gʰiya]

In this pair of sentences, all participants changed the word “ghuba” to “guba” in (f.1) and left the word “giya” in (f.2) unchanged.

PAIR G: [ngʰubɔ], [tintangu]

In this pair of sentences, all participants changed the word “ngubo” to “nghubo” in (g.1) and also changed the word “tintanghu” to “tintangu” in (g.2).

PAIR H: [dzʰɛŋga], [dzɔŋga]

In this pair of sentences, all participants changed the word “dzhenga” to “dzenga” in (h.1) and left the word “dzonga” unchanged in (h.2).

PAIR I: [ndzʰɛŋga], [ndzʰɔŋga]

In this last pair of sentences, all participants changed the word “dzenga” to “ndzhenga” in (i.1) and also changed the word “ndzongo” to “ndzhongo” in (i.2).

PAIR J: [dlfiɁjiwa], [ndlfiɁɔ]

In this pair of sentences, all participants left the word “dlayiwa” unchanged in (j.1) while changing the word “ndlayo” to “ndlhayo” (j.2).

4.2.7 DATA COLLECTED FROM XITSONGA-SPEAKING PEOPLE WHO ARE XITSONGA AUTHORS

4.2.7.1 INTRODUCTION

This section presents data collected through in-depth interviews of Xitsonga authors and lexicographers. Participant #20 is a prolific writer who has written novels, poetry anthologies and grammar books. Participant #21 is a Xitsonga poet who has written poetry anthologies. Participant #22 is a Xitsonga lexicographer who has developed bilingual and monolingual dictionaries. The respondents were asked to write, in practical orthography, the following pairs of words which are written in phonetic script below.

(a.1) [bfiɁβa].
(To be bitter)

(a.2) [baβa].
(A father)

(b.1) [bɛka].
(To give birth)

(b.2) [bfieka].
(To be beatable)

(c.1) [mbuti].
(A goat)

(c.2) [mbhuri].
(A handsome person)

- (d.1) [dʱulu].
(A grannary)
- (d.2) [dʱewula].
(To swing one's legs)
- (e.1) [ndulu].
(A species of antelope)
- (e.2) [ndʱulwani].
(A type yellow fruit of the gifappel plant)
- (f.1) [magɔɓ].
(Gluttony)
- (f.2) [emagɔβeni].
(At the cliffs)
- (g.1) [ŋgɔɓɛ].
(A pole to close gate of kraal)
- (g.2) [riŋgʱɔɓɛ].
(A thong or rielm to fasten with)
- (h.1) [madzʱɛdzʱɛ].
(Fleas)
- (h.2) [ʱidzʱɛdzʱɛ].
(A storm)
- (i.1) [ndzʱɛkɔ].
(A long-handled drinking calabash)
- (i.2) [mandɛndzɛ].
(A hypocrite)
- (j.1) [dlʱɔɓɔɓɔ].
(Poke into eyes with something blunt)
- (j.2) [ndlʱɔɓɔɓɔ].
(The act of poking into eyes with a blunt object)

4.2.7.2 PARTICIPANTS' RESPONSES

PAIR A: [bʰaβa], [baβa]

With regards to this first pair, all participants wrote the word [bʰaβa] (to be bitter) as “bava” in (a.1) and the word [baβa] as “bava” (father) in (a.2) with the exception of Participant #20 who wrote it as “mbava”.

PAIR B: [bɛka]; [bʰɛka]

In this pair, with the exception of Participant #20 who wrote the word [bɛka] (to give birth) as “mbeka” in (b.1), all the other participants wrote it as “beka” and wrote the word [bʰɛka] (to be beatable) as “beka” in (b.2).

PAIR C: [mbuti]; [mbʰuri]

In as far as this pair is concerned, all participants wrote the word [mbuti] for “a goat” as “mbuti” in (c.1) while the word for [mbʰuri] (a handsome person) was written as “mbhuri” in (c.2).

PAIR D: [dʰulu]; [dʰewula]

In this pair, all participants wrote the word for [dʰulu] (a grannary) as “dulu” in (d.1) while the word for [dʰewula] was written as “dewula”.

PAIR E: [ndulu]; [ndʰulwani]

In this pair, all participants wrote the word for [ndulu] (a species of an antelope) as “ndulu” in (e.1) while the word for [ndʰulwani] (a yellow fruit of a gifappel plant) was written as “ndhulwani” in (e.2).

PAIR F: [magɔɓ]; [emagɔβeni]

All participants wrote the word for [magɔɓ] (gluttony) as “magolo” in (f.1) while the word for [emagɔβeni] (at the cliffs) was written as “emagoveni” in (f.2).

PAIR G: [ŋgɔɛ]; [riŋghɔɛ]

In pair (g), all participants wrote the word for [ŋgɔɛ] (pole to close a gate of a kraal) as “ngole” in (g.1) while the word for [riŋghɔɛ] (a thong or riem to fasten with) was written as “ringhole” in (g.2).

PAIR H: [madzɦɛdzɦɛ]; [ɦidzɦɛdzɦɛ]

In this pair, pair (g), all participants wrote the word for [madzɦɛdzɦɛ] (fleas) as “madzedze” in (h.1) while the word for [ɦidzɦɛdzɦɛ] (a storm) was written as “xidzedze” in (h.2).

PAIR I: [ndzɦɛkɔ]; [mandɛndzɦɛ]

In this pair, pair (i), all participants wrote the word for [ndzɦɛkɔ] (a long-handled drinking calabash) as “ndzheko” in (i.1) while the word for [mandɛndzɦɛ] (a hypocrite) was written as “mandendze” in (i.2).

PAIR J: [dlɦɔɔɔɔɔ]; [ndɦɔɔɔɔɔ]

In this pair (j), all participants wrote the word for [dlɦɔɔɔɔɔ] as “dlonyola” (to poke into eyes with a blunt object) in (j.1) while the word for [ndɦɔɔɔɔɔ] was written as “ndlhonyolo” (j.2).

4.2.8 DATA COLLECTED FROM PEOPLE WHO ARE XITSONGA SUBJECT SPECIALISTS

4.2.8.1 INTRODUCTION

This section presented data collected through interviewing Xitsonga subject specialists. The group was asked to edit or mark the following pairs of sentences, in

order to guide educators on how to teach learners the correct spelling of the words written in bold.

- (a.1) *Tiyisela u nwa murhi lowu hambiloko wu **bava**, wu ta ku hanyisa.*
[Just drink this medicine eventhough it is bitter, it will cure you.]
- (a.2) *Magezi wo kaneta ntsena, hi yena **bhava** wa n'wana loyi.*
[Magezi is just denying, he is the father of this child.]
- (b.1) *Mbuti ya ka hina yi ta **beka** mundzuku.*
[Our goat will give birth tomorrow.]
- (b.2) *Mufana loyi a nga swi koti ku vhika, hikwalaho wa **bheka**.*
[This boy is not able to parry blows, that is why he is beatable.]
- (c.1) *U humile **timbhonya** hikwalaho ka piki na foxolo.*
[He has blisters because of working with a pick and shovel.]
- (c.2) *Vakhegula va rhandza ngopfu **mbhowa** wa tin'hwembe.*
[Old women like pumpkin greens.]
- (d.1) *Nsimu ya yena yi tele hi **dhamba** na muxiji ntsena.*
[His field is full of the damba and muxiji traditional vegetables.]
- (d.2) *Ndzi tsakile hikuva n'wana wa mina se sungula ku **dheya** manuku.*
[I am happy because my child has now started to walk.]
- (e.1) *Mufana loyi i **dendefu** ro hetelela, u tsandziwa hi ku fambisa muti.*
[This boy is very stupid; he fails to run his family.]
- (e.2) *Ta vuya masiku lama **ePalamendhe** kwale Kapa.*
[Things are happening nowadays in Parliament in Cape Town.]
- (f.1) *Muvatli u **ghuba** nkombe wa yena hi mbatlo.*
[The carpenter is carving his wooden spoon using a carving tool.]
- (f.2) *Masocha ya sungurile ku **giya** loko va hlurile.*
[The soldiers started to dance when they had conquered.]
- (g.1) *Muvatli u xavile **ngubo** wo vatla hi wona.*
[The carpenter has bought a carving tool to carve with.]

- (g.2) *Tatana u ndzi xaverile tintanghu tintshwa.*
[My father has bought new shoes for me.]
- (h.1) *Tinhlolo ta n'anga ya yena ti fe dzhenga.*
[The divining bones of his diviner have failed.]
- (h.2) *Se va kongome etlhelo ra dzonga wa tiko.*
[They are now facing the southern part of the country.]
- (i.1) *Ndzi ta ya ekaya hi nkarhi wa dzenga loko ku nga ha hisi.*
[I will go home in the afternoon when it is no longer hot.]
- (i.2) *Wa ndzi karhata hi rilondzo ra wena, ndzi ta ku nyika mali ya yena.*
[You are frustrating me with your zealousness, I will give you your money.]
- (j.1) *Tlhari ri tsandzeke ku tlhava nghala, a ro dlundluwuta kunene.*
[The spear failed to penetrate the lion's hide; it just deflected.]
- (j.2) *Ndlundluwuto wa tlhari wu endle leswaku nghala yi n'wi dlaya*
[The failure to penetrate the lions's skin, resulted in him being killed by the lion.]

4.2.8.2 PARTICIPANTS' RESPONSES

PAIR A: [bɦaβa], [baβa]

In this pair (a), all three participants did not change the word “bava” in (a.1). However, with regards to the word “bhava” in (a.2), all participants changed it to <bava>.

PAIR B: [bɛka], [bɦɛka]

In this pair, all three participants left the word “beka” in (b.1) unchanged except for Participant 23 who changed it to “tswala”. With regards to the word “bheka” in (b.2), all participants changed it to “beka”.

PAIR C: [timbhɔŋja], [mbɔwa]

In this pair of sentences, all participants changed the word “timbonya” in (c.1) to “timbhonya”. They also changed the word “mbhowa” to “mbowa” in (c.2).

PAIR D: [dɬamba], [dɬɛja]

In this pair of sentences, all participants changed the word “dhamba” in (d.1) to “damba” (type of traditional vegetable) and left the word “deya” unchanged in (d.2).

PAIR E: [dɬiendefu], [palamendɬɛ]

In this pair of sentences, all participants left the words “dendefu” and “palame-ndhe” in (e.1) and in (e.2) unchanged.

PAIR F: [gɬhuba], [gɬhiya]

In this pair of sentences, all three participants changed the word “ghuba” to “guba” in (f.1) and left the word “giya” in (f.2) unchanged.

PAIR G: [ngɬhubɔ], [tintangu]

In this pair of sentences, all three participants changed the word “ngubo” to “nghubo” in (g.1) and also changed the word “tintanghu” to “tintangu” in (g.2).

PAIR H: [dzɬɛŋga], [dzɔŋga]

In this pair of sentences, all three participants changed the word “dzhenga” to “dzenga” in (h.1) and left the word “dzonga” unchanged in (h.2).

PAIR I: [ndzfiɛŋga], [ndzfiɔŋgɔ]

In this last pair of sentences, all three participants changed the word “dzenga” to “ndzhenga” in (i.1) and also changed the word “ndzongo” to “ndzhongo” in (i.2).

PAIR J: [dlɬundluβuta], [ndlɬundluβutɔ]

In this pair (j), all three participants did not change the word “dlundluvuta” in (j.1). However, with regards to the word “ndlundluvuto” in (j.2), all participants changed it to <ndlɬundluvuto>.

4.3 SECTION B

DATA ANALYSIS

This section analyses the data presented in Section A. Words with particular features were identified from various sources which, inter alia, include literary texts, Xitsonga-speaking people who can neither read nor write, those who can read the Xitsonga language, those who teach the Xitsonga language at primary school, high school and tertiary, and also from Xitsonga authors. As Bogdan and Biklen (2003) suggest, the data collected by means of different techniques should be analysed systematically by organising them, breaking them into manageable units, coding them, synthesising them, and searching for patterns. In other words, the individual responses are triangulated by way of analysis, comparison, and then categorised together with the results of transcriptions. This will enable the researcher to validate the research findings and eliminate any biases which may have emerged in as a result of only one researcher investigating the phenomenon.

4.3.1 ANALYSIS OF DATA COLLECTED FROM EXISTING XITSONGA TEXTS

In analysing data collected from the existing texts, speech sounds with common or similar features have been grouped together for ease of reference.

4.3.1.1 THE VOICED BILABIAL EXPLOSIVE [b] versus THE MURMURED BILABIAL EXPLOSIVE [bʱ]

Extracts from various Xitsonga texts bearing words with a voiced bilabial explosive and a murmured bilabial explosive were identified for purposes of scrutiny in terms of their practical orthographic representations. For example, the underlined consonant “b” as it appears in the extracts (a) and (b) by Malungana (2005:3) and Malungana and Ngobeni (1997:62), is defined, on one hand, by Baumbach (1981:17) as a **voiced bilabial explosive** [b] while, on the other hand, the underlined consonant “b”, as it appears in extracts (c) and (d) by Sasavona Books (1936:188) and Sasavona Books (1971:26), is described by Baumbach (1981:23) as a **murmured bilabial explosive** [bʱ].

Although the bilabial explosive [b] and the murmured bilabial explosive [bʱ] are two distinct speech sounds, they have been represented by the same grapheme in extracts (a) and (b), and (c) and (d) of the cited texts by Malungana (2005:3) and Malungana and Ngobeni (1997:62) respectively. This phenomenon, where two different speech sounds are being represented by the same symbol or letter in practical orthography is called underrepresentation, and it is not in line with the alphabetic writing systems of Xitsonga. This is supported by Rana (2014) who points out that the consonantal system of alphabetic writing employs the principle of sound-symbol correspondence. In other words, one symbol should be designated to represent one (and only one) sound, and conversely, one sound should be represented by one (and only one) symbol.

4.3.1.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND, [mb] versus THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND, [mbʱ]

The underlined consonant “mb”, as it appears in the word written in bold in extract (a) by Shabangu (2015:118), is defined, on one hand, as a **voiced bilabial explosive nasal compound** [mb] while, on the other hand, the underlined consonant “mbh” as

it is written in bold in extract (b) by Makgoana (1975:45), is described as a **murmured bilabial explosive nasal compound** [mbh̥]. To show that the voiced bilabial explosive nasal compound [mb] and the murmured bilabial explosive nasal compound [mbh̥] are two distinct speech sounds, the authors have written them or represented them with different symbols in orthographic script. The voiced bilabial explosive nasal compound [mb] has been represented by the grapheme <mb> in extract (a), while the murmured bilabial explosive nasal compound [mbh̥] has been represented by the symbol <mbh> in extract (b). The representation of different speech sounds by different symbols in practical orthography, as alluded to by Rana (2014), is in line with the principle of one-to-one correspondence between sound and symbol which is employed in the consistent and accurate transcription of languages in the consonantal system of alphabetic writing.

4.3.1.3 **THE VOICED BILABIAL EXPLOSIVE [d] versus THE MURMURED BILABIAL EXPLOSIVE [d̥]**

The underlined consonant “d” as it appears in the word written in bold in extract (a) by Nkondo (1990:39), is defined by Baumbach (1981) as a **voiced alveolar explosive** [d]. Currently, there is no text in the Xitsonga language that has words with an independent or a stand alone murmured alveolar explosive consonant.

4.3.1.4 **THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] versus THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd̥]**

Extracts from various Xitsonga texts bearing words with a voiced alveolar explosive and a murmured alveolar explosive have been identified for purposes of study in terms of their practical orthographic representations. For example, the underlined consonant “nd” as it appears in the extracts (a) and (b) by (Marivate 1965:15) and (Shabangu 2016: 34), is defined, on one hand by Baumbach (1981:17) as a **voiced alveolar explosive nasal compound** [nd], while, on the other hand, the underlined consonant “ndh”, as it appears in extracts (c) and (d) by Ngobeni 1992:7) and

(Maluleke 1993:22), is described by Baumbach (1981:23) as a **murmured alveolar explosive nasal compound** [ndfi].

Although the voiced alveolar explosive nasal compound [nd] and the murmured alveolar explosive nasal compound [ndfi] are two distinct speech sounds, the authors of the extracted texts have represented them with the same symbol or letter <nd>. This situation of having two different speech sounds being represented by the same symbol or letter in practical orthography is not in line with the consonantal system of Xitsonga alphabetic writing. This is alluded to by Rana (2014) who points out that the consonantal system of alphabetic writing employs the principle of sound-symbol correspondence. In other words, one symbol should be designated to represent one (and only one) sound, and conversely, one sound should be represented by one (and only one) symbol.

4.3.1.5 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gfi]

The underlined consonant “g” as it appears in the word written in bold in extract (a) by Malungana, Magaisa and Mpenyana (2014:48) and extract (b) by Malungana, Magaisa and Mpenyana (2014:35) is defined by Baumbach (1981) as a **voiced velar explosive** [d]. Currently, there is no text in the Xitsonga language that has words with an independent or a stand alone murmured velar explosive consonant.

4.3.1.6 THE VOICED VELAR NASAL EXPLOSIVE COMPOUND [ng] *versus* THE MURMURED VELAR NASAL EXPLOSIVE COMPOUND [ngfi]

The underlined consonant “ng” as it appears in the word written in bold in extracts (a) and (b) from Malungana, Magaisa and Mpenyana’s reader (2014:48) is defined by Baumbach (1981) as a **voiced velar explosive nasal compound** [ng]. The underlined consonant “ngh” as it appears in the word written in bold in extracts (c) and (d) from

Masase and Langa's drama and Junod's folklore, is defined by Baumbach (1981) as a **murmured velar explosive nasal compound** [ngh].

In order to show that these two speech sounds are different, they have been written or represented in orthographic script by different symbols. The voiced velar explosive nasal compound is represented by the grapheme <ng> in extracts (a) and (b), while the murmured velar explosive nasal compound is represented by the symbol <ngh> in extract (c) and (d). This representation of different speech sounds by different symbols in practical orthography is in line with the principle of one-to-one correspondence between sound and symbol which is employed in the consistent and accurate transcription of languages in the consonantal system of alphabetic writing (Rana 2014).

4.3.1.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzɦ]

The underlined consonant “dz”, as it appears in the words written in bold in extract (a) by Shabangu (2008:156) and extract (b) by Magagane (1993:37), is defined by Baumbach (1981) as a **voiced alveolar affricate** [dz]. However, it has been pronounced by the speakers as a **murmured alveolar affricate** [dzɦ] just like the underlined consonant “dzɦ”, as it appears in the nasal compounds of the words <ndzheko> (a scooping calabash) in extract (b) of Magagane's novel, <ndzhutini> (in prison) in extract (d) of Shabangu's drama, and <ndzhaku> (behind) in extract (e) of Miye's novel.

4.3.1.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzɦ]

On one hand, the underlined consonant “ndz”, as it appears in the words written in bold in extract (a) and (b) by the Evangelical Presbyterian Church (1998:7) and Shabangu (2008:108) is defined by Baumbach (1981) as a **voiced alveolar affricate nasal compound** [ndz], while on the other hand, the underlined consonant “ndzɦ”,

as it appears in the words written in bold in extract (b) and (c) by Shabangu (2008:108 and Miyen (1988:53) is defined as a **murmured alveolar affricate nasal compound** [ndzh]. In order to show that these two speech sounds are distinct, they are represented by different symbols in orthographic script. The voiced alveolar affricate nasal compound is represented by the grapheme <ndz>, while the murmured alveolar affricate nasal compound is represented by the symbol <ndzh>. The representation of different speech sounds by different symbols in practical orthography, as alluded to by Rana (2014), is in line with the principle of one-to-one correspondence between sound and symbol which is employed in the consistent and accurate transcription of languages in a consonantal system of alphabetic writing.

4.3.1.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlh]

The underlined consonant “dl”, as it appears in the word “dlaya” in extract (g) of the novel by Shabangu (2016:136), is defined by Baumbach (1981:17) as a **voiced alveo-lateral explosive** [dl]. However, it is pronounced as a **murmured alveo-lateral explosive** [dlh] when spoken. The underlined consonant “dlh” of the nasal compound “ndlh”, as it appears in the same extract (g) of the novel *Ximitantsengele* by Shabangu (2016: 136), is described by Ziervogel (1967a:106) as a **voiced aspirated alveo-lateral explosive**, which, in fact, was supposed to be defined as a **murmured alveo-lateral explosive**. In this instance, there is underrepresentation because the same speech sound [dlh], is represented by two different symbols <dl> and <dlh> in the words “dlaya” and <ndlhayo> respectively.

4.3.2 ANALYSIS OF DATA COLLECTED FROM XITSONGA-SPEAKING PEOPLE WHO CAN NEITHER READ NOR WRITE THE XITSONGA LANGUAGE

In analysing how participants in this group pronounced the targeted speech sounds when providing answers to various questions, speech sounds with similar features have been grouped together. For example, observations made in respect of speech sounds found in answers for questions (a) to (d), (e) to (f), (i) to (j), (k) to (m), (n) to (o),

(p) to (q), (r) to (s), and (t) to (u) have been dealt with together as the identified consonants have common features.

4.3.2.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bʰ]

In naming the objects or completing the sentences, the participants pronounced the first consonant of the words “buku” (a book) in Question A and “bava” (to be bitter) in Question C as a **murmured bilabial explosive** [bʰ], while they pronounced the first consonant of the words “bava” (father) in Question B and “beka” (to give birth) in Question D as a **voiced bilabial explosive** [b].

4.3.2.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbʰ]

Participants pronounced the consonant of the second syllable of the word “timboni” in Question E as a **voiced bilabial explosive nasal compound** [mb], while the consonant of the second syllable of the word “vumbhoni” in Question F was pronounced as a **murmured bilabial explosive nasal compound** [mbʰ]. In this instance, there is a one-to-one correspondence of speech sounds and their orthographic representations. This is highly acceptable as it is in line with the alphabetic writing systems of the Xitsonga language.

4.3.2.3 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gʰ]

To this set of questions, the respondents have pronounced consonant “g” in the second syllable of the word “xigombo” (a knobkierie) in Question G and in the second syllable of the word “magayisa” (mineworkers coming home during Christmas time) in Question H as a **murmured velar explosive** [gʰ], yet, according to Baumbach, consonant “g” is meant to represent a **voiced velar explosive** [g].

Thus, in this case, there is underrepresentation because two speech sounds [g] and [gh] have been represented by one symbol <g>.

4.3.2.4 THE VOICED VELAR NASAL EXPLOSIVE [ng] *versus* THE MURMURED VELAR NASAL EXPLOSIVE [ngh]

To this set of questions, the respondents pronounced the first consonant “ng” of the word “nglulve” (a pig) in Question I as a **voiced velar nasal explosive**, while the first consonant “ngh” of the word “nghala” (a lion) in Question J was pronounced as a **murmured velar nasal explosive** [ngh]. The two speech sounds have been properly represented as they are represented by two different letters. This orthography is in line with the alphabetic writing systems of the Xitsonga language.

4.3.2.5 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [dʰ]

When it came to this set of questions, the participants pronounced the first consonant of the word “duma” in Question K, the consonant of the second syllable of the word “dulu” in Question L, and the first consonant of the word “dakwile” in Question M as a **murmured alveolar explosive** [dʰ]. Yet, according to Baumbach, this consonant “d” is designated to represent a **voiced alveolar explosive** [d]. Presently, there is no symbol that is designated to represent the **voiced alveolar explosive** [d] independently, except in the nasal compound [nd].

4.3.2.6 THE VOICED ALVEOLAR NASAL EXPLOSIVE [nd] *versus* THE MURMURED ALVEOLAR NASAL EXPLOSIVE [ndʰ]

To this set of questions, the participants pronounced the first consonant “nd” of the word “ndangu” (to be sated) in Question N as a **voiced alveolar nasal explosive**, while the first consonant “ndh” of the word “ndhuma” (to be well-known) in Question O was pronounced as a **murmured alveolar nasal explosive** [ndʰ]. This representation of different speech sounds by different symbols is consistent with the

consonantal system of the alphabetic writing of the Xitsonga language which, employs the principle of sound-symbol correspondence.

4.3.2.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʰ]

To this set of questions, the respondents pronounced the first consonant “dz” of the words “dzana” (the falling down of fruit when ripe) and “dzovo” (a baby sling) in Question P and Question Q respectively as a **murmured alveolar affricate** [dzʰ]. Yet, according to Baumbach, consonant “dz” is designated to represent a **voiced alveolar affricate** [dz]. There is presently no symbol designated to represent a **voiced alveolar affricate** in the Xitsonga orthography.

4.3.2.8 THE VOICED ALVEOLAR NASAL AFFRICATE [ndz] *versus* THE MURMURED ALVEOLAR NASAL AFFRICATE [ndzʰ]

With regards to this set of questions, participants pronounced the second consonant of the word “ndzhandzeni” in Question R as a **voiced alveolar affricate nasal compound** [ndz], while the first consonant of the word “ndzhombo” in Question S was pronounced as a **murmured alveolar nasal affricate** [ndzʰ]. There is a proper one-to-one correspondence in terms of pairing the speech sounds with the symbols. This is in line with the alphabetic writing systems of the Xitsonga language, which allows for accuracy in bring about the intended meaning by the speaker and also the accurate reading of the written language.

4.3.2.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlʰ]

The first and second consonants “dl”, as they appear in the word “dlidlimbetana” in (t) were clearly pronounced by the respondents as a **murmured alveo-lateral explosive** [dlʰ], but in written form, they are represented by the letter <dl> which is designated, according to Ziervogel (1967a), as a **murmured alveo-lateral explosive**

[dlh]. The second consonant “dlh” of the nasal compound “ndlh” in (u) was clearly pronounced by the respondents as a **murmured alveo-lateral explosive** [dlh] which in practical script is represented by the grapheme <dlh>. Thus, there is an underrepresentation of speech sounds because the same speech sound [dlh] is represented by two different symbols <dl> and <dlh> in the words “dlidlimbetana” and “ndlhindhimbetano” respectively.

4.3.3 ANALYSIS OF DATA COLLECTED FROM XITSONGA-SPEAKING PEOPLE WHO CAN READ THE XITSONGA LANGUAGE

When analysing how participants in this group pronounced the targeted speech sounds when reading the given extracts, speech sounds with similar features have been grouped together. For example, observations made in respect of speech sounds found in extracts (a) to (d), (e) to (f), (h), (i) to (k), (l) to (m), (n) to (o), and (p) to (r) are presented together as the identified consonants have common features.

4.3.3.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bʰ]

Although the first consonants of the words “bava” in extract (a) of Malungana’s short stories (2005:3), “buku” in extract (b) of Sasavona’s *Buku ya Vahlayi Sub A* reader (1971:26), “bava” in extract (c) of Sasavona’s *Vutlhari bya Vatsonga* (1936:188), and “bangala” in extract (d) of Malungana and Ngobenis’ anthology of poetry (1997:62) have been written in the same manner by the authors, participants pronounced them differently. All participants pronounced the first consonants of the words “bava” (father) in extract (a) and “bangala” (a type of traditional vegetable) in extract (d) as a **voiced bilabial explosive** [b], while the first consonants of the words “buku” (a book) in extract (b) and “bava” (to be bitter in taste) in extract (c) were pronounced clearly as a **murmured bilabial explosive** [bʰ]. In other words, the two different speech sounds, that is, the voiced bilabial explosive [b] and the murmured bilabial explosive [bʰ] are been represented by the same symbol or letter . This is contrary to what Cahill and Karan (2008) observed when they argue that no two

speech sounds should be represented orthographically by one symbol. This notion is again supported by Rana (2014) who avers that the consonantal system of alphabetic writing that the Xitsonga orthography developers have opted to use, employs the principle of sound-symbol correspondence. In other words, in the Xitsonga orthography, one symbol should be designated to represent one (and only one) sound, and conversely, one sound should be represented by by one (and only one) symbol.

4.3.3.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbh̥]

In this set of extracts, the respondents pronounced the first consonant “mb” of the word “timboni” (lights) in extract (e) of Shabangu’s novel (2015:118) as a **voiced bilabial explosive nasal compound**, while consonant [mbh̥] of the second syllable of the word “vumbhoni” (evidence) in extract (f) of Makgoana’s drama (1975:45) was pronounced as a **murmured bilabial nasal explosive**. This representation of different speech sounds with different symbols is consistent with the principle of sound-symbol one-to-one correspondence that is employed in the transcription of the Xitsonga language.

4.3.3.3 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [d̥h̥]

In this set of extracts, (i) – (j), all participants pronounced the underlined consonant of the words “duma” in extract (i) of Nkondo’s drama (1990:39), “madulu” in extract (j) of Khosa’s novel (1990:13), and “dakwile” in extract (k) of Sasavona’s collection of proverbs (1936:218) as a **murmured alveolar explosive** [d̥h̥] despite the fact that Baumbach (1981:17) is of the view that this consonant should be represented as a **voiced alveolar explosive** [d]. There is, therefore, underrepresentation of speech sounds as one symbol is used to represent two distinct speech sounds. This state of affairs is not in line with the Xitsonga alphabetic writing systems. It causes inaccuracies in meaning and difficulties in reading the written word.

4.3.3.4 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] *versus* THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [ndʱ]

In this set of extracts, extract (l) and (m), participants, on one hand, pronounced the last consonant “nd” of the word “xitandi” (a residential site) in extract (l) of Marivate’s drama (1965:15) as a **voiced alveolar explosive nasal compound** just like it is described in the Xitsonga consonant chart by Baumbach (1981:47). On the other hand, the first consonant “ndh” of the word “ndhuma” (to be well-known) in extract (m) of Ngobeni’s novel (1992: 7) was pronounced as a **murmured alveolar explosive nasal compound** [ndʱ] as it is described in the Xitsonga consonant chart (Baumbach (1981:47). This representation of different speech sounds with different symbols in practical script is in line with the consonantal system of alphabetic writing of the Xitsonga language, which employs the principle of sound-symbol correspondence.

4.3.3.5 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gʱ]

Although Baumbach (1981), Cuenod (1982) and Ziervogel (1967a) describe the underlined consonant of the words “xigayu” and “gayisa” in extract (g) of David Livingstone’s biography by Baloyi (1953:11) as a **voiced velar explosive** [g], the respondents pronounced it as a **murmured velar explosive** [gʱ]. This, therefore, means that either the author of the extract or the orthography developers have misrepresented the murmured velar explosive, [gʱ] and caused a mismatch between the speech sounds and their orthographic representations. This mismatching is called underrepresentation because two different speech sounds are represented by one grapheme. Underrepresentation and overrepresentation are not advisable as they cause confusion in the reading of the written language and they sometimes tamper with the meaning of the spoken language.

4.3.3.6 THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] *versus* THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngʰ]

The respondents pronounced the underlined consonant “ng” of the words “nungu” (porcupine), “nhonga” (a stick) and “sungula” (to start) in extract (h) of Sasavona’s folklore (1965:35) as a **voiced velar explosive nasal compound** [ng] and the underlined consonant “ngʰ” of the word “tinghala” (lions) in the same extract as a **murmured velar explosive nasal compound** [ngʰ]. The respondents did not only pronounce the two speech sounds differently, but they also pronounced them according to the manner in which they are phonetically described. Baumbach (1981:26) describes consonant “ng” as a **voiced velar explosive nasal compound** [ng], while consonant “ngʰ” is described as a **murmured velar explosive nasal compound** [ngʰ]. This, therefore, means that the two speech sounds are properly represented as each one of them is represented by its own symbol.

4.3.3.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʰ]

With regards to extracts (n) and (p), participants pronounced the underlined consonant of the words, “dzumba” and “dzumbile” in extract (n) of Shabangu’s *Xivoni xa Vutomi* drama (2008:156) and “gadzile” in extract (p) of Magagane’s *Xi Rhumbukile* novel (1993:37), as a **murmured alveolar affricate** [dzʰ] even though the authors or orthography developers have represented it with the letter <dz>, which, according to Baumbach (1981:32) and Cuenod (1982:8), is designated for a **voiced alveolar affricate** [dz]. Thus, there is a mismatch because the murmured alveolar affricate [dzʰ] is represented by a voiced alveolar affricate [dz].

4.3.3.8 THE VOICED ALVEOLAR NASAL AFFRICATE COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR NASAL AFFRICATE COMPOUND [ndzʰ]

In extracts (o) – (q), participants correctly pronounced the underlined consonant “ndz” of the words, “ndzi” (a subjectival concord) in extract (o) of Shabangu’s *Xivoni*

xa Vutomi drama (2008:108) and “nandzu” (sin/crime/offence) in extract (q) of the Evangelical Presbyterian Church’s *Tinsimu ta Vakriste* (1998:7), as a **voiced alveolar affricate nasal compound** [ndz] as described by Baumbach in accordance with the Xitsonga consonant chart. Participants also pronounced the underlined consonant “ndzh” of the words, “ndzhutini” (in gaol) in extract (o), “ndzheko” (a scooping calabash) in extract (p) of Magagane’s novel (1993:37) and “ndzhaku” (behind) in extract (r) of Miyen’s novel (1988:53), as a **murmured alveolar nasal compound** [ndzh], as described according to the Xitsonga consonant chart (Baumbach 1981:47). The representation of these two speech sounds is in line with the Xitsonga alphabetic writing systems, which employs the principle of sound-symbol correspondence, in order to avoid any inaccuracies in terms meaning and confusion in the reading of the written words.

4.3.3.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlh]

The respondents pronounced the first consonant “dl” of the word “dlaya” in extract (s) as a **murmured alveo-lateral explosive** [dlh], yet, in written form, it is represented by the letter <dl>. The second consonant “dlh” of the nasal compound “ndlh” in the same extract was clearly pronounced by the respondents as a **murmured alveo-lateral explosive** [dlh] and is represented as <dlh> in orthographic script as it appears in the extract. In this instance, there is, therefore, underrepresentation as one speech sound, the **murmured alveo-lateral explosive** [dlh], is represented by two different graphemes, <dl> and <dlh>, in the words “dlaya” and “ndlayo” respectively. Underrepresentation is not advisable in the alphabetic writing systems as it causes confusion in terms of accurate reading and exact meaning of what the speaker wants to convey.

4.3.4 ANALYSIS OF DATA COLLECTED FROM XITSONGA PRIMARY SCHOOL EDUCATORS

In analysing how the educators spelt the words dictated to them, words with similar speech sounds were grouped together for easy reference. For example, pairs (a) to (d), (e) and (f), (g) and (h), and (i) to (j) were grouped together.

4.3.4.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bʱ]

In writing the correct spellings of the words dictated to them in this pair, underrepresentation was identified in the usage of the corresponding symbols by the respondents. In other words, the respondents used the same symbol more than once to represent two different speech sounds. The letter or symbol which, according to Ziervogel (1967:a) and Baumbach (1981), is designated to represent the **voiced bilabial explosive** [b] in writing the words “bonga” (to thank) in (a.1) and “bava” (father) in (b.2) were also used to represent the **murmured bilabial explosive** [bʱ] in writing the words “bonga” (to bellow) in (a.2), “bava” (to be bitter) in (b.1), “bolo” (a ball) in (c.1) and “be” (a bell or hooter) in (d.2). This is not in line with the alphabetic writing systems of the Xitsonga language. The alphabetic writing systems, according to Rana (2014), allow one symbol to be designated to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol. This one-to-one correspondence allows for accuracy in meaning, and prevents confusion in the reading of the written word.

4.3.4.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbʱ]

When writing the correct spelling of the words dictated to them, the respondents managed to represent two different speech sounds using two different symbols in practical script. The respondents correctly used the symbol “mb” to represent the **voiced bilabial explosive nasal compound** [mb] in the writing of the word “timboni” (lights) in (c.1). The respondents also used the correct symbol “mbʱ” to represent a **murmured bilabial explosive nasal compound** [mbʱ] in the writing of the word “timbhoni” (witnesses) in (c.2). This representation of different speech sounds with different symbols is in line with the alphabetic writing systems of the Xitsonga language.

4.3.4.3 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

In this pair of words, the respondents used symbol “d” in the place of a **murmured alveolar explosive** [dʱ] instead of a **voiced alveolar explosive** [d] in the words “dambiketa” (to send misfortune by magic) in (g.1) and “dodombana” (to struggle with in a fight) in (g.2). According to Baumbach (1981), the symbol <d> is designated to represent a voiced alveolar explosive and not a murmured alveolar explosive. It means, therefore, that there is a mismatch between the speech sounds and the graphemes. This mismatching is not advisable in orthographic script as it causes confusion when one is reading and also in terms of the accuracy of meaning.

4.3.4.4 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gʱ]

To write the words dictated to them, the respondents used symbol “g” in the words “xigayo” in (e.1) and “goya” in (e.2) for the **murmured velar explosive** [gʱ], yet, according to Baumbach, Cuenon and Ziervogel, the symbol “g” is designated to represent the **voiced velar explosive** [g]. Thus, there is a mismatch between the speech sound and its practical representation. This inconsistent use of symbols to represent speech sounds is not in line with the consonantal systems of alphabetic writing. The alphabetic writing system of the Xitsonga language employs the one-to-one correspondence of speech sounds with their respective symbols. This one-to-one correspondence allows for the accuracy of meaning and eradicates the element of confusion in the reading of the written language.

4.3.4.5 THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] *versus* THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngʱ]

To write the correct spelling of the words dictated to them, the respondents managed to represent a voiced velar nasal explosive and a murmured velar nasal

explosive with two different symbols in practical script. The respondents have correctly used the symbol <ng> to represent a **voiced velar explosive nasal compound** [ng] in the writing of the word “milnge” (legs) in (f.1) and they used the correct symbol <ng̃h> to represent a **murmured velar explosive nasal compound** [ng̃h] in the writing of the word “ng̃helekele” (a type of bird) in (f.2). This representation of different speech sounds with different symbols is consistent with the consonantal system of alphabetic writing.

4.3.4.6 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] versus THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd̃h]

To edit the given pair of sentences, pair (h), the respondents managed to properly represent the two different speech sounds with their respective symbols. The **voiced alveolar explosive nasal compound** [nd] was represented by the symbol <nd> in writing the word “gndola” in (h.2), while the **murmured alveolar explosive nasal compound** [nd̃h] was represented by the symbol <nd̃h> in writing the word “nd̃homba” in (h.1). Thus, there is consistency in the representation of these two different speech sounds and this is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.4.7 THE VOICED ALVEOLAR AFFRICATE [dz] versus THE MURMURED ALVEOLAR AFFRICATE [dz̃h]

In this pair of words, the respondents used symbol “dz” to represent the **murmured alveolar affricate** [dz̃h] instead of a **voiced alveolar affricate** [dz] in the words “dzumba” (to rest during heat of day) in (i.1) and “dzima” (to thrust or plant; pitch a tent) in (i.2). According to Baumbach (1981), the symbol <dz> is designated to represent a voiced alveolar affricate and not a murmured alveolar affricate. There is, thus, a mismatch between the murmured alveolar affricate [dz̃h] and its practical representation. This inconsistency is not in line with the consonantal systems of

alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.4.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzh]

In this pair of words, the respondents have properly used symbol “ndz” properly to represent a **voiced alveolar affricate nasal compound** [ndz] in the word “ndzima” (a portion of land under cultivation) in (j.1) and they also used the symbol “ndzh” to properly represent a **murmured alveolar affricate nasal compound** [ndzh] in the word “ndzhumba” (a sound of musical drums) in (j.2). This representation of each speech sound with its own symbol in practical orthography is in line with the consonantal systems of alphabetic writing that the Xitsonga language employs. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.4.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlh]

In this pair of words, the respondents used a different symbol for the same **murmured alveo-lateral explosive** [dlh] found in the word “dlaya” (to kill) in (k.1) and in the second consonant “ndlh” of the word <ndlhayo> (the act of killing) in (k.2). This representation of the same speech sound with two different symbols in practical orthography is not in line with the alphabetic writing systems that the Xitsonga language employs. The alphabetic writing system employs the one-to-one correspondence of speech sounds and their respective symbols, in order to avoid discrepancies in the meanings and for accurate reading of the words. One sound should, therefore, be represented by one symbol and one symbol should represent one sound.

4.3.5 ANALYSIS OF DATA COLLECTED FROM XITSONGA HIGH SCHOOL EDUCATORS

In analysing how the educators edited the pairs of sentences, words with similar speech sounds were grouped together for easy reference. For example, pairs (a) to (c), (d) and (e), (f) and (h), (h) and (i), and (j) were grouped together.

4.3.5.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bɦ]

In editing pair (a) of the given sentences, underrepresentation in the usage of the corresponding symbols by the respondents was identified. In other words, the respondents used the same symbol to represent different speech sounds. The letter or symbol which, according to Baumbach (1981), is designated to represent the **voiced bilabial explosive** [b], for example, in writing words “bava” (to be bitter) in (a.1). However, the same letter was used to represent a **murmured bilabial explosive** [bɦ], for example, in the writing of the word “bava” (father) in (a.2).

In pair (b), also, underrepresentation was observed. Educators used the symbol to represent both the **voiced bilabial explosive** [b] and the **murmured bilabial explosive** [bɦ] in the writing of the words “beka” (to give birth) and “beka” (to be beatable) in (b.1) and (b.2) respectively. The underrepresentation that took place here is not in line with the consonantal system of alphabetic writing. The consonantal system of writing, according to Rana (2014), allows one symbol to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol, in order to make the transcription of the language accurate.

4.3.5.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbɦ]

To write the correct spelling of the words in this pair of sentences, the respondents managed to represent different speech sounds with different symbols in practical script. On one hand, the respondents used the symbol <mb> correctly to represent a

voiced bilabial explosive nasal compound [mb] in the writing of the word “timboni” (lights) in (c.1). On the other hand, the respondents used the correct symbol “mbh” to represent a **murmured bilabial explosive nasal compound** [mbʰ] in the writing of the word “timbhoni” (witnesses) in (c.2). This representation of different speech sounds with different symbols is consistent with the consonantal system of alphabetic writing as it allows for accuracy in the transcription of the language.

4.3.5.3 **THE VOICED VELAR EXPLOSIVE [g] versus THE MURMURED VELAR EXPLOSIVE [gʰ]**

To edit pair (d) of the sentences, the respondents used symbol “g” in the words “rigombo” (to be quarrelsome) in (d.1) and “tigomola” (to bump against a hard surface) in (d.2) for a **murmured velar explosive** [gʰ]. Yet, according to Baumbach, Cuenod and Ziervogel, the symbol “g” is designated to represent a **voiced velar explosive** [g]. Thus, there is a mismatch between the speech sound and its practical representation. This inconsistent use of symbols to represent speech sounds is contrary to the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols.

4.3.5.4 **THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] versus THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngʰ]**

To edit the sentences in pair (e), the respondents represented a voiced velar nasal explosive and a murmured velar nasal explosive with two different symbols in practical script. The respondents used the symbol <ng> to correctly represent the **voiced velar explosive nasal compound** [ng] in the writing of the word “tingoma” (small musical drums) in (e.1). They used symbol <ngʰ> to correctly represent a **murmured velar explosive nasal compound** [ngʰ] in the writing of the word “tinghoma” (short songs) in (e.2). This representation of different speech sounds by different symbols is consistent with the consonantal system of alphabetic writing as it allows for accuracy in the transcription of the language concerned.

4.3.5.5 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

According to Baumbach (1981), the symbol <d> is designated to represent a voiced alveolar explosive. However, in this pair of sentences, pair (f), there is a mismatch because the respondents used symbol <d> in the place of a **murmured alveolar explosive** [dʱ] instead of a **voiced alveolar explosive** [d] in the words “duna” (a bullock) in (f.1) and “dumba” (to drive cattle) in (f.2). This mismatching of speech sounds with their practical representations is incongruous with the consonantal systems of alphabetic writing as it employs the sound-symbol pattern of one-to-one correspondence which allows for accurate transcription of the language like Xitsonga.

4.3.5.6 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] *versus* THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [ndʱ]

When editing this pair of sentences, the respondents managed to properly represent the two different speech sounds, [nd] and [ndʱ], with their respective symbols in practical orthography. The **voiced alveolar nasal compound** [nd] was represented by the symbol <nd> in writing the word “ndnduzela” (to praise) in (g.1), while the **murmured alveolar nasal compound** [ndʱ] was represented by the symbol <ndh> in the writing of the word <ndhumba> in (g.1). Thus, there is consistency in the representation of these two different speech sounds which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.5.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʱ]

In this pair of sentences, the respondents used the symbol <dz> to represent a **murmured alveolar affricate** [dzʱ] instead of a **voiced alveolar affricate** [dz] in the

words “dzuka” (to sweat) in (h.1) and “dzowa” (sweet marula beer) in (h.2). According to Baumbach (1981), the symbol <dz> is designated to represent a voiced alveolar affricate and not a murmured alveolar affricate. Thus, there is a mismatch between the murmured alveolar affricate [dzɦ] and its practical representation. This mismatching is not in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.5.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzɦ]

When editing this pair of sentences, the respondents managed to properly represent the two different speech sounds, [ndz] and [ndzɦ], by their respective symbols in practical orthography. The **voiced alveolar affricate nasal compound** [ndz] was properly represented by the symbol <ndz> in the writing of the word <ndzovolo> (pride price for wife) in (i.2), while the **murmured alveolar affricate nasal compound** [ndzɦ] was properly represented by the symbol <ndzh> in the writing of the word <ndzhukano> in (i.1). There is, thus, consistency in the representation of these two different speech sounds, and this is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.5.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlɦ]

When editing this pair of sentences, all three respondents erroneously represented the same speech sound [dlɦ] with two different letters or graphemes, <dl> and <dlh>. The respondents represented the **murmured alveo-lateral explosive** [dlɦ] of the word “dlayiwile” by the letter <dl>, while representing the same speech sound

with the letter <dlh> in the second consonant of the nasal compound in the word <ndlhayo>. This is underrepresentation, which is not advisable in the alphabetic writing systems as it causes confusion in terms of accurate reading and exact meaning of what the speaker wants to convey.

4.3.6 ANALYSIS OF DATA COLLECTED FROM XITSONGA UNIVERSITY LECTURERS

In analysing how the lectures have edited the pairs of sentences, words with similar speech sounds were grouped together for easy reference. For example pairs (a) and (b), (c), (d), (e), (f) and (g), (h), (i), and (j) were grouped together.

4.3.6.1 THE VOICED BILABIAL EXPLOSIVE [b] versus THE MURMURED BILABIAL EXPLOSIVE [bʱ]

When editing pairs (a) and (b) of the given sentences, underrepresentation in the usage of the corresponding symbols by the respondents was identified. In other words, the respondents used the same symbol to represent more than one speech sound. In (a.1), the respondents used the letter or symbol to represent the **voiced bilabial explosive** [b] in the word “bava” (father). They also used the same symbol to represent a **murmured bilabial explosive** [bʱ] in the word “bava” (bitter) in (a.2).

Again, in pair (b), underrepresentation took place. The lecturers used the symbol to represent both the **voiced bilabial explosive** [b] and **murmured bilabial explosive** [bʱ] in the writing of the words “beka” (to give birth) and “beka” (to be beatable) in (b.1) and (b.2) respectively. The underrepresentation that took place is not in line with the consonantal system of alphabetic writing. The consonantal system of writing, according to Rana (2014), allows one symbol to be designated to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol, in order to make the transcription of the language accurate.

4.3.6.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbh]

When editing pair (c) of the given sentences, the respondents managed to represent different speech sounds by their respective symbols. The respondents correctly used the symbol <mb> to represent a **voiced bilabial explosive nasal compound** [mb] in the writing of the word “mbowa” (greens of pumpkin vegetables) in (c.2). The respondents also used the correct symbol <mbh> to represent a **murmured bilabial explosive nasal compound** [mbh] in the writing of the word “timbhonya” (blisters) in (c.1). This representation of different speech sounds by different symbols is in line with the consonantal system of alphabetic writing. It guarantees accuracy in the transcription of the language concerned.

4.3.6.3 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

When editing pair (d), the respondents used the symbol <d> to represent a murmured alveolar explosive [dʱ], which is contrary to what Baumbach postulates when he avers that the symbol <d> is designated to represent a voiced alveolar explosive [d]. Therefore, in this pair of sentences, there is a mismatch. The respondents used symbol <d> in the place of a **murmured alveolar explosive** [dʱ] instead of a **voiced alveolar explosive** [d] in the words “damba” (a type weed used for feeding pigs) in (d.1) and “deya” (a child learning how to walk) in (d.2).

Mismatching is not acceptable in consonantal system of alphabetic writing as it causes inaccuracies in the transcription of languages like Xitsonga. Therefore, the **murmured alveolar explosive** [dʱ] in the words “damba” and “deya” should have been written as a **murmured alveolar explosive** [dʱ] in the nasal compound of the word “palamendhe” in (e.2) instead of the **voiced alveolar explosive** [d] found in the nasal compound of the word “dendefu” in (e.1).

4.3.6.4 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] *versus* THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [ndh]

When editing this pair, pair (e) of these sentences, the respondents managed to properly represent different speech sounds by their respective symbols. The **voiced alveolar nasal compound** [nd] was correctly represented by the symbol <nd> in writing the word “dendefu” (a foolish person) in (e.1) while the **murmured alveolar nasal compound** [ndh] was also correctly represented by the symbol <ndh> in the writing of the word <palamendhe> in (e.2). Thus, there is consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds with their respective symbols. The one-to-one correspondence of speech sounds with their respective symbols, guarantees accuracy in the transcription of the language concerned.

4.3.6.5 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gh]

When editing pair (f) of the given sentences, the respondents represented the identified speech sounds in a confusing manner. The respondents used symbol <g> in the words “guba” (to carve out) in (f.1) and “giya” (to dance) in (f.2) to represent a **murmured velar explosive** [gh]. According to Baumbach (1981), Cuenod (1967) and Ziervogel (1967a), the symbol <g> is designated to represent a **voiced velar explosive** [g], and nothing else.

Thus, there is a mismatch between the speech sound [gh] and its practical representation as the system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. This inconsistent use of symbols to represent speech sounds is not in line with the consonantal systems of alphabetic writing as it causes inaccuracies in the transcription of the language. Therefore, the **murmured velar explosive** [gh] in the words “guba” and “giya” was supposed to be written as a **murmured velar explosive** [gh] in the nasal compound

of the word “nghubo” in (g.1) instead of the **voiced velar explosive** [g] found in the nasal compound of the word “tintangu” in (g.2).

4.3.6.6 THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] *versus* THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngh]

When editing this pair (g) of sentences, the respondents managed to properly represent the two different speech sounds [ng] and [ngh], with their respective symbols in practical orthography of the words “tintangu” in (g.2) and “nghubo” in (g.1). The **voiced velar nasal compound** [ng] was represented by the symbol <ng> in the word “tintangu” (a pair of shoes) in (g.2), while the **murmured velar nasal compound** [ngh] was represented by the symbol <ngh> in the writing of the word “nghubo” in (g.1).

There is, thus, consistency in the representation of these two different speech sounds which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.6.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʰ]

In this pair (h) of sentences, the respondents used the symbol <dz> to represent a **murmured alveolar affricate** [dzʰ] in the writing of the word “dzonga” (the southern part) in (h.2). Yet, according to Baumbach (1981), the symbol <dz> is designated to represent a **voiced alveolar affricate** [dz] and not a murmured alveolar affricate. Thus, there is a mismatch between the murmured alveolar affricate [dzʰ] and its practical representation. This inconsistency is not in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should

represent one sound. Therefore, the **murmured alveolar affricate** [dzɦ] was supposed to be represented by the <dzɦ> found in the nasal compound “ndzhenga” in sentence (i.1) instead of the **voiced alveolar affricate** <dz> found in the word “rilondzo” in (1.2).

4.3.6.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzɦ]

In editing this last pair, pair (i) of sentences, the respondents managed to properly represent the two different speech sounds [ndz] and [ndzɦ], by their respective symbols in practical orthography. The **voiced alveolar affricate nasal compound** [ndz] was properly represented by the symbol <ndz> in writing of the word <rilondzo> (persistence in efforts to right a wrong) in (i.2), while the **murmured alveolar affricate nasal compound** [ndzɦ] was properly represented by the symbol <ndzɦ> in the writing of the word <ndzhenga> in (i.1). There is, thus, consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.6.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlɦ]

In editing this pair, pair (j) of the sentences, all three respondents erroneously represented the same speech sound [dlɦ] by two different letters or graphemes, <dl> and <dlɦ>. The respondents represented the **murmured alveo-lateral explosive** [dlɦ] of the word “dlayiwa” in (j.1) with the letter <dl> while representing the same speech sound with the letter <dlɦ> in the second consonant of the nasal compound in the word “ndlhayo” in (j.2). This is an example of underrepresentation, which is not advisable in the alphabetic writing system as it causes confusion in terms of accurate reading and exact meaning of what the speaker wants to convey.

4.3.7 ANALYSIS OF DATA COLLECTED FROM XITSONGA AUTHORS

In analysing how the authors have written the pairs of words dictated to them, words with similar speech sounds were grouped together for easy reference. For example, pairs (a) to (c), (d) and (e), (f) and (g), (h), (i), and (j) were grouped together.

4.3.7.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bʱ]

The writing of dictated words in pair (a), revealed that there is underrepresentation in the usage of corresponding symbols with their respective sounds. In other words, the respondents used the same symbol to represent two different speech sounds. In the writing of the word “bava” (to be bitter) in (a.1), the **murmured bilabial explosive** [bʱ] is represented by the symbol while at the same time, the same symbol was used to represent the **voiced bilabial explosive** [b] in the writing of the word “bava” (father) in (a.2). Again, in pair (b), the symbol was used to represent the **voiced bilabial explosive** [b] in writing the word “beka” (to give birth) in (b.1) while, it is concurrently representing the **murmured bilabial explosive** [bʱ] in writing the word “beka” (to be beatable) in (b.2).

The representation of many speech sounds with one symbol is not in line with the consonantal system of alphabetic writing. The consonantal system of writing, according to Rana (2014), allows only one symbol to be designated to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol.

4.3.7.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] *versus* THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbʱ]

In writing pair (c) of the dictated words, the respondents managed to represent different speech sounds by their respective symbols. The respondents correctly used the symbol <mb> to represent a **voiced bilabial explosive nasal compound** [mb] in the writing of the word <mbuti> (a goat) in (c.1). The respondents also used the

correct symbol <mbh> to represent a **murmured bilabial explosive nasal compound** [mbh̥] in the writing of the word <mbhuri> (a handsome person) in (c.2). This representation of different speech sounds with different symbols is in line with the consonantal system of alphabetic writing. It guarantees accuracy in the transcription of the language concerned.

4.3.7.3 THE VOICED ALVEOLAR EXPLOSIVE [d] *versus* THE MURMURED ALVEOLAR EXPLOSIVE [d̥]

In writing the words in pair (d), the respondents used the symbol <d> to represent a murmured alveolar explosive [d̥], which is contrary to what Baumbach postulates when he avers that the symbol <d> is designated to represent a voiced alveolar explosive [d]. Therefore, in this pair of sentences, there is a mismatch. The respondents used the symbol <d> in the place of a **murmured alveolar explosive** [d̥] instead of a **voiced alveolar explosive** [d] in the words “dulu” (a grannary) in (d.1) and “dewula” (to swing legs) in (d.2). Mismatching is not allowed in the consonantal system of alphabetic writing as it causes inaccuracies in the transcription of languages like Xitsonga.

4.3.7.4 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] *versus* THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd̥]

When giving the correct words in pair (e) of these sentences, the respondents managed to properly represent different speech sounds by their respective symbols. The **voiced alveolar nasal compound** [nd] was correctly represented by the symbol <nd> in writing the word “ndulu” (a type of antelope) in (e.1), while the **murmured alveolar nasal compound** [nd̥] was also correctly represented by the symbol <ndh> in the writing of the word “ndhulwani” in (e.2). So, there is consistency in the representation of these two different speech sounds which, is in line with the consonantal systems of alphabetic writing. This system of alphabetic writing employs the one-to-one correspondence of speech sounds with their respective symbols. The one-to-one correspondence of speech sounds with their respective symbols, guarantees accuracy in the transcription of the language concerned.

4.3.7.5 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gʱ]

To provide the correct words in pair (f) of the dictated sentences, the respondents represented the identified speech sounds in a confusing manner. The respondents used symbol <g> in the words “magolo” (gluttony) in (f.1) and “emagoveni” (in the cliffs) in (f.2) to represent a **murmured velar explosive** [gʱ]. According to Baumbach (1981), Cuenod (1967) and Ziervogel (1967a), the symbol <g> is designated to represent a **voiced velar explosive** [g], and nothing else. Thus, there is a mismatch between the speech sound [gʱ] and its practical representation as the system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. This inconsistent use of symbols to represent speech sounds is not in line with the consonantal systems of alphabetic writing as it causes inaccuracies in the transcription of the language.

4.3.7.6 THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] *versus* THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngʱ]

To give the correct words in pair (g) of the dictated sentences, the respondents managed to properly represent the two different speech sounds [ng] and [ngʱ], with their respective symbols in practical orthography. The **voiced velar nasal compound** [ng] was represented by the symbol <ng> in writing the word “ngole” (a pole used to close the gate of a kraal) in (g.2), while the **murmured velar nasal compound** [ndʱ] was represented by the symbol <ndh> in the writing of the word “ringhole” (a thong or riem to fasten with) in (g.1). Thus, there is consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.7.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʰ]

In this pair of words, pair (*h*), the respondents used symbol <dz> to represent a **murmured alveolar affricate** [dzʰ] in the writing of the words “madzedze” (fleas) in (*h.1*) and “xidzedze” (a big storm) in (*h.2*) respectively. However, according to Baumbach (1981), the symbol <dz> is designated to represent a **voiced alveolar affricate** [dz] and not a murmured alveolar affricate. Thus, there is a mismatch between the murmured alveolar affricate [dzʰ] and its practical representation. This inconsistency is not in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.7.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] *versus* THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzʰ]

To provide the correct words in this pair of sentences, the respondents managed to properly represent the two different speech sounds [ndz] and [ndzʰ], with their respective symbols in practical orthography. The **voiced alveolar affricate nasal compound** [ndz] was properly represented by the symbol <ndz> in the writing of the word “mandendze” (a hypocrite) in (*i.2*), while the **murmured alveolar affricate nasal compound** [ndzʰ] was properly represented by the symbol <ndzh> in the writing of the word <ndhzeko> (a long-handled drinking calabash) in (*i.1*). Thus, there is consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The alphabetic writing system employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.7.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] *versus* THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlh]

In editing this pair, pair (*j*) of the sentences, all three respondents represented the same speech sound [dlh] with two different symbols or graphemes, <dl> and <dlh>. The respondents represented the **murmured alveo-lateral explosive** [dlh] of the word “dlonyola” (to poke into the eyes with a blunt object) in (*j.1*) by the letter <dl>, while representing the same speech sound, the **murmured alveo-lateral explosive** [dlh] with the letter <dlh> in the second consonant of the nasal compound in the word <ndlhayo> (the act of poking into the eyes by a blunt object) in (*j.2*). This is underrepresentation, which is not recommended in the alphabetic writing systems as it causes confusion in terms of accurate reading and exact meaning of what the speaker wants to convey.

4.3.8 ANALYSIS OF DATA COLLECTED FROM XITSONGA SUBJECT SPECIALISTS

In analysing how the subject specialists edited the pairs of sentences, words with similar speech sounds were grouped together for easy reference. For example, pairs (*a*) to (*b*), (*c*) and (*d*), (*e*) and (*f*), and (*g*) and (*h*) were grouped together.

4.3.8.1 THE VOICED BILABIAL EXPLOSIVE [b] *versus* THE MURMURED BILABIAL EXPLOSIVE [bh]

To edit this pair, pair (*a*) of the given sentences, the respondents used the same symbol to represent more than one speech sound. In (*a.1*), the respondents used the grapheme to represent the **voiced bilabial explosive** [b] in the word “bava” (father). They also used the same symbol to represent a **murmured bilabial explosive** [bh] in the word “bava” (bitter) in sentence (*a.2*). Again, in pair (*b*), the respondents have used the symbol to represent both the **voiced bilabial explosive** [b] and the **murmured bilabial explosive** [bh] in writing the words “beka” (to give birth) and “beka” (to be beatable) in (*b.1*) and (*b.2*) respectively.

As already alluded above, underrepresentation is not advisable as it is not in line with the alphabetic writing system as it tempers with the meaning of what the speaker intends to express. The alphabetic writing system, according to Rana (2014), allows one symbol to be designated to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol, in order make the transcription of the language accurate.

4.3.8.2 THE VOICED BILABIAL EXPLOSIVE NASAL COMPOUND [mb] versus THE MURMURED BILABIAL EXPLOSIVE NASAL COMPOUND [mbʱ]

To edit this pair, pair (c) of the given sentences, the respondents managed to represent different speech sounds by their respective symbols. The respondents correctly used the symbol <mb> to represent a **voiced bilabial explosive nasal compound** [mb] in the writing of the word “mbowa” (greens of pumpkin vegetables) in (c.2). The respondents also used the correct symbol <mbʱ> to represent a **murmured bilabial explosive nasal compound** [mbʱ] in the writing of the word <timmbhonya> (blisters) in (c.1). This representation of different speech sounds with different symbols is in line with the consonantal system of alphabetic writing. It guarantees accuracy in the transcription of the language concerned.

4.3.8.3 THE VOICED ALVEOLAR EXPLOSIVE [d] versus THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

To edit pair (d), the respondents used the symbol <d> to represent a murmured alveolar explosive [dʱ] which is contrary to what Baumbach postulates when he avers that the symbol <d> is designated to represent a voiced alveolar explosive [d]. Therefore, in this pair of sentences, there is a mismatch. The respondents used symbol <d> in the place of a **murmured alveolar explosive** [dʱ], instead of a **voiced alveolar explosive** [d] in the words “damba” (a type weed used for feeding pigs) in (d.1) and “deya” (a child learning how to walk) in (d.2). Mismatching is not allowed in a consonantal system of alphabetic writing as it causes inaccuracies in the transcription of languages like Xitsonga.

4.3.8.4 THE VOICED ALVEOLAR EXPLOSIVE NASAL COMPOUND [nd] *versus* THE MURMURED ALVEOLAR EXPLOSIVE NASAL COMPOUND [ndh]

To edit pair (e) of these sentences, the respondents managed to properly represent different speech sounds by their respective symbols. The **voiced alveolar nasal compound** [nd] was correctly represented by the symbol <nd> in writing the word “dendefu” (a foolish person) in (e.1), while the **murmured alveolar nasal compound** [ndh] was also correctly represented by symbol <ndh> in the writing of the word <palamendhe> in (e.2). Thus, there is consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds with their respective symbols. The one-to-one correspondence of speech sounds with their respective symbols, guarantees accuracy in the transcription of the language concerned.

4.3.8.5 THE VOICED VELAR EXPLOSIVE [g] *versus* THE MURMURED VELAR EXPLOSIVE [gh]

To edit pair (f) of the given sentences, the respondents represented the identified speech sounds in a confusing manner. The respondents used symbol <g> in the words “guba” (to carve out) in (f.1) and “giya” (to dance) in (f.2) to represent a **murmured velar explosive** [gh]. According to Baumbach (1981), Cuenod (1967) and Ziervogel (1967a), the symbol <g> is designated to represent a **voiced velar explosive** [g], and nothing else. Thus, there is a mismatch between the speech sound [gh] and its practical representation as the system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. This inconsistent use of symbols to represent speech sounds is not in line with the consonantal systems of alphabetic writing as it causes inaccuracies in the transcription of the language.

4.3.8.6 THE VOICED VELAR EXPLOSIVE NASAL COMPOUND [ng] *versus* THE MURMURED VELAR EXPLOSIVE NASAL COMPOUND [ngʱ]

To edit this pair of sentences, the respondents managed to properly represent the two different speech sounds, namely [ng] and [ngʱ], with their respective symbols in the practical orthography. The **voiced velar nasal compound** [ng] was represented by the symbol <ng> in writing the word “tintangu” (a pair of shoes) in (g.2), while the **murmured velar nasal compound** [ndʱ] was represented by the symbol <ndh> in the writing of the word <nghubo> in (g.1). Thus, there is consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.8.7 THE VOICED ALVEOLAR AFFRICATE [dz] *versus* THE MURMURED ALVEOLAR AFFRICATE [dzʱ]

In this pair of sentences, the respondents used symbol <dz> to represent a **murmured alveolar affricate** [dzʱ] in the writing of the word “dzonga” (the southern part) in (h.2). Yet, according to Baumbach (1981), the symbol <dz> is designated to represent a **voiced alveolar affricate** [dz] and not a murmured alveolar affricate. Thus, there is a mismatch between the murmured alveolar affricate [dzʱ] and its practical representation. This inconsistency is not in line with the consonantal systems of alphabetic writing. The consonantal systems of alphabetic writing employ the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.8.8 THE VOICED ALVEOLAR AFFRICATE NASAL COMPOUND [ndz] versus THE MURMURED ALVEOLAR AFFRICATE NASAL COMPOUND [ndzh]

In editing this pair of sentences, the respondents managed to properly represent the two different speech sounds, [ndz] and [ndzh], by their respective symbols in practical orthography. The **voiced alveolar affricate nasal compound** [ndz] was properly represented by the symbol <ndz> in the writing of the word “rilondzo” (persistence in efforts to right a wrong) in (i.2), while the **murmured alveolar affricate nasal compound** [ndzh] was properly represented by the symbol <ndzh> in the writing of the word <ndzhenga> in (i.1). There is, thus, consistency in the representation of these two different speech sounds, which is in line with the consonantal systems of alphabetic writing. The system of alphabetic writing employs the one-to-one correspondence of speech sounds and their respective symbols. One sound should be represented by one symbol and one symbol should represent one sound.

4.3.8.9 THE VOICED ALVEO-LATERAL EXPLOSIVE [dl] versus THE MURMURED ALVEO-LATERAL EXPLOSIVE [dlh]

To edit this pair, pair (j) of the sentences, all three respondents represented the same speech sound [dlh] with two different graphemes. The respondents represented the **murmured alveo-lateral explosive** [dlh] of the word “dlundluvuta” (to fail to penetrate a hide, like a spear) in (j.1) with the letter <dl>, while representing the same speech sound, the **murmured alveo-lateral explosive** [dlh] with the symbol <dlh> in the second consonant of the nasal compound of the word “ndllhundluvuto” (the act of spear failing to penetrate a hide) in (j.2). This is an example of underrepresentation, which is not recommended in the alphabetic writing systems as it causes confusion in terms of accurate reading and exact meaning of what the speaker wants to convey.

CHAPTER 5

SUMMARY OF THE STUDY, CONCLUSIONS AND RECOMMENDATIONS

5.1 SUMMARY OF THE STUDY

The main aim of this study was to explore Xitsonga murmured speech sounds in order to determine if they are correctly represented in orthographic script by the orthography developers and Xitsonga authors.

Under the rubric of orthography, Chapter One provided an account of who, when and how the Xitsonga orthography was developed, tracing it back to the arrival of the Swiss missionaries in Valdezia, in the Transvaal, where evangelism amongst the Xitsonga-speaking people started. It is understood that it was by coincidence that the Swiss missionaries found themselves developing the orthography of the Xitsonga language. Their purpose of coming to Africa was merely to convert Africans to Christianity.

As a result of this iniquitous quest of converting the “heathens” of Africa, which, according to them, as Balia (2007) explains, was an unexplored and unknown region supposed to be an elevated desert, the Swiss missionaries saw no need to deploy educated people like professional linguists who had authority on issues of language development, particularly orthography development. For example, in and around 1870, the Paris Evangelical Mission Society sent two volunteers, namely Ernest Creux and Paul Berthoud, to Lesotho to learn a bit of Sesotho before they could be deployed to start missionary work amongst the Bapedi people of Chief Sekhukhune in the Transvaal (Bill and Masunga 1983). However, because of suspicions, Chief Sekhukhune did not accept Ernest Creux and Paul Berethoud when they arrived in 1873. The two missionaries thus made their way to the far north of the Transvaal, where they came across the Magwamba (Shangaan) people. With the help of the self proclaimed Portuguese chief, Joa Albasini and the Berlin Mission, which had already started missionary work amongst the Venda people in this area, Ernest Creux and

Paul Berthoud established their own missionary work amongst the Magwamba people at the nearby Klipfontein farm (the now Valdezia Mission Station). After settling down, missionary work started in earnest in 1875 (Halala and Mthebule 2013).

When the missionaries started preaching the word of God, they were confronted with the serious problem of language barrier. The missionaries came to realise that the Sesotho that they were taught in Lesotho was a completely different language from the one of their targeted converts, the Magwambas spoke. The missionaries and the Gwambas did not understand each other, making the teachings of the missionaries futile. This became a real problem for the missionaries as their mission of spreading the word of God amongst these “heathens” was a pipe dream and almost impossibility.

The missionaries then came up with a plan to translate the Sesotho Bible, which they obtained at training in Lesotho, into the Xigwamba (Xitsonga) language. They again encountered another serious challenge; the Xigwamba language, at the time, did not have an orthography as it was not yet a written language. The missionaries had to start with the development of the Xigwamba orthography before they could start translating the Sesotho Bible.

They chose the consonantal writing system which uses the Roman alphabet *a, b, c, d*, etc. to create the orthography. This consonantal system of alphabetic writing, as Rana (2014) postulates, allows one designated symbol to represent one (and only one) sound, and conversely, one sound to be represented by one (and only one) symbol. Thus, the missionaries had to carefully listen to each and every Xigwamba speech sound uttered by the speakers of the language and map it out with a specific letter of the alphabet. This was not an easy task; it was exacting and daunting, as it took them almost ten years to develop the Xitsonga orthography. This culminated into the birth of the first Xitsonga written book called *Buku ya Tšikwembo Tšínwe ni Tisimo ta Hlengeletano* in 1883.

The establishment and development of the Xitsonga orthography did not stop with the *Buku ya Tšikwembo Tšínwe ni Tisimo ta Hlengeletano*, but the missionaries continued over the years until, in 1938, when the Transvaal Department of Education of the Government of South Africa joined hands with them. This led to the establishment of a Tsonga Language Board in 1938, which comprised mainly of missionaries from different church denominations and White government officials.

At a meeting of the Ronga, Tshwa and Tsonga language representatives in Pretoria in 1949, a common orthography was decided on for these three cognate languages. The Transvaal Department of Education convened yet another meeting in Pretoria to decide on the Xitsonga orthography and school book publications. The meeting was attended by fourteen representatives of different churches and the printing press and members of the Transvaal Department of Education. In 1962, the *Tsonga Terminology and Orthography No.2* under the auspices of the Department of Bantu Education was finally accepted.

Of interest to note is that, the speakers of the language were not consulted in the development of the Xitsonga orthography. It is only the missionaries and the White government officials who were involved in the development of a language that they did not speak, let alone understand. Inspectors and the leaders of the meetings meant to discuss and take resolutions regarding the rules and manner of developing the orthographies were White people, particularly Afrikaaners. From 1956-1962, for example, Mr P.A. Hofman, who was the chairperson of the Tsonga Language Board, played an active part in the development of Xitsonga, while in 1962-1965, Mr F.B. Olivier took over. Although successive colonial administrations and missionaries may have publicly professed otherwise, the sidelining of the Xitsonga-speaking people in the development of their language points to a deliberate and systematic process of marginalising indigenous people of South Africa so as to enable the coloniser to claim space and area. Needless to say, such iniquitous acts were done in the guise of “civilising the natives from savagery, intricate ignorance, and callous barbarity” (Leshota (2014)). It is, thus, not surprising that there are such alarming inconsistencies in the writing of the Xitsonga language.

Chapter Two presented a review of literature which focused on two main areas: the views of different scholars, dictionary compilers and language manuals developers on the orthography in general and the Xitsonga murmured speech sounds and their orthographic representations in particular. Various scholars are in agreement that the orthography is a system of symbols that are used to represent speech sounds in a particular language and that each language has its own unique practical orthography. What is of paramount importance in practical orthography, though, is that the symbols should be phonemic and there should be a one-to-one correspondence between each phoneme and the symbolisation of that phoneme.

Different scholars hold different views with regards to murmured speech sounds. Some, like Ziervogel (1976a) are of the view that murmured speech sounds do not occur anywhere else, but that they only occur in nasal compounds. Other scholars, like Meinhof (1932) and Cole (1955), are not in agreement with the notion that murmured speech sounds only occur in nasal compounds. They argue that this is far from the truth as voiced explosives occur as murmurs in the Xitsonga language, albeit seldom. What Meinhof is cautious about, though, is that an attempt to reform the Xitsonga orthography is not necessary, taking into account the large Xitsonga literature that is already in existence. Meinhof's advice is rather reckless if one takes into account the phonemic role that each symbol plays in a particular language.

What is at stake here is not the number of books which have already been written, but it is whether the murmured speech sounds are properly represented or not in practical script. If the murmured speech sounds are not properly represented, there is a problem of accuracy of the intended meaning by the speaker. If, for example, there is underrepresentation of speech sounds in practical script or orthography, the written utterance would be misleading because the intended meaning of the speaker shall have been tampered with. In this instance, it is not the meaning alone that is misrepresented; even the reading of the text may not be accurate because of this underrepresentation. It is, thus, ill-advisable and unfortunate for one to suggest that murmured speech sounds should continue to be misrepresented despite the fact that their exclusion in the Xitsonga orthography tampers with the intended meanings that speakers want to convey.

Despite all the discrepancies that are prevalent in the representation of the murmured speech sounds in practical writing revealed in this study, dictionary compilers, language manual developers and language practitioners seem to ignore them. Dictionary compilers like Cuenod attempted to describe different speech sounds but at times fell short by being a caricature of Ziervogel. To indicate that Cuenod was not original in his description of speech sounds, he describes murmured explosives as aspirated explosives just like Ziervogel erroneously did. Yet, in a real sense, aspirations and murmurs are different as aspirations happen in voiceless explosives, while murmurs occur in voiced explosives.

To make matters worse, Cuenod contradicts himself by arguing that a “voiced aspirated” bilabial explosive [bʰ] occurs in the nasal compound <mbh>, while in his dictionary, there are lemmas which are spelt “bhavu” (to arrive unexpectedly) and “bhee” (the bleating of a sheep) (Cuenod 1982). The underlined consonants in these lemmas are **murmured bilabial explosives** and appear independently. However, Cuenod postulates that they only occur in a nasal compound.

Chapter Three of this study discussed the research design, as well as the research methodologies and the research techniques employed in data collection and data analysis. Two methods were used in data gathering, that is, data were collected from existing Xitsonga texts and from interviews using the unstructured model where open-ended questions were asked. The study, therefore, utilised the qualitative research approach in data soliciting.

Chapter Four presented and analysed data collected from existing Xitsonga texts as well as data collected from interviewing stakeholders who are involved in issues of the Xitsonga language development and revitalisation. For example, Xitsonga-speaking people who can neither read nor write were asked to give names of certain objects in Xitsonga, while those who can read were asked to read extracts or passages from existing Xitsonga books. Other interviewees, such as educators and lecturers were asked to edit identified texts, while authors were asked to correctly spell certain identified words.

It is evident, as the data in this study revealed, that there is a mismatch between murmured speech sounds and their orthographic representations. Data collected from various sources reveal that murmured speech sounds are represented by symbols which have already been designated to represent other speech sounds and this has resulted in underrepresentation. As already alluded to in various instances underrepresentation is not advisable because, if it is applied, the meaning of the word is tampered with or the reader may find it difficult to choose which speech sound the symbol represents at the time of reading the text.

5.2 CONCLUSIONS

In the process of developing the Xitsonga orthography, the missionaries experienced a problem in differentiating between the voiced speech sounds and their murmured counterparts. They represented, for example, the **voiced bilabial explosive** [b] and the **murmured bilabial explosive** [bʰ] by the same letter of the alphabet , the **voiced alveolar explosive** [d]; and the **murmured alveolar explosive** [dʰ] by the same alphabetic symbol <d>, and the **voiced velar explosive** [g] and the **murmured velar explosive** [gʰ] by the same grapheme <g>.

The above cited examples show that, in some instances, there has been overrepresentation. Underrepresentation means that one symbol has been used to represent two different speech sounds. For example, the underlined letter or consonant “b” in the following sentences “Mbuti ya beka” (The goat is giving birth) and “Mufana loyi wa beka” (This boy is beatable) is an underrepresentation because it represents two different speech sounds. The first consonant in “Mbuti ya beka” represents a **voiced bilabial explosive** [b] and the second one represents a **murmured bilabial explosive** [bʰ].

As these are two distinct speech sounds, they should not have been represented by the same symbol, according to the principle of sound-symbol correspondence employed when using the consonantal system of alphabetic writing. The murmured speech sound or consonant is supposed to be differentiated from the voiced

consonant by inserting, according to Baumbach (1983), the letter “h” following on the symbol for the murmured consonant. A murmured bilabial explosive [b̥h], therefore, would be properly represented by the symbol <bh> in orthographic script, while the murmured alveolar explosive [d̥h] and the murmured velar explosive [g̥h] would be represented by the symbols <dh> and <gh> respectively. As a result of this, words such as “xiboho” (resolution), “duvula” (to shoot) and “gama” (an eagle), whose underlined consonants are pronounced with murmur, should be written in orthographic script as <xibhoho>, <dhuvula> and <ghama> respectively.

Although it would seem the missionaries who developed the Xitsonga orthography were under the impression that murmured speech sounds do not occur independently like their aspirated counterparts do. As shown by their successors, like Ziervogel (1967a) and Baumbach (1981), who argue that murmured explosives (that they describe as aspirated) such as the [b̥h], the [d̥h] and the [g̥h], only occur in the nasal compounds <mbh>, <ndh> and <ngh> in the words like “mbhongolo” (donkey), “ndhuna” (headman) and “nghala” (lion) respectively. This may not be necessarily correct because if a nasal compound is a combination of a consonant with one or more other consonants, then “bh”, “dh” and “gh” are independent consonants in the nasal compounds <mbh>, <ndh> and <ngh> respectively just like consonants “b”, “d” and “g” in the nasal compound <mb>, <nd> and <ng> respectively.

This is in line with how orthography developers and the missionaries, have represented murmured nasal compounds such as <mbh>, <ndh> and <ngh>. The underlined nasal compounds in the above examples are formed by both a nasal and a murmured speech sound. For example, the nasal compound <mbh> is formed by the voiced bilabial nasal [m] and the murmured bilabial explosive [b̥h], while the nasal compounds <ndh> and <ngh> are respectively formed by the voiced alveolar nasal [n] plus the murmured alveolar explosive [d̥h], as well as the voiced alveolar nasal [n] plus the murmured velar explosive [g̥h].

Differentiating the voiced consonants with their murmured counterparts would be in line with how the orthography developers represented the voiceless consonants with their aspirated counterparts. In this regard, the orthography developers managed to differentiate the voiceless consonants with their aspirated counterparts very well. To differentiate the two speech sounds, they inserted the letter “h” following on the symbol or letter for the aspirated consonant. For example, a voiceless alveolar explosive [t] and a voiceless bilabial explosive [p] in the words “tola” (to apply or smear) and “paka” (to package) are represented by the symbol <t> and <p>, while their aspirated counterparts are represented by the grapheme <th> and <ph> in the words “thola” (to appoint) and “phaka” (to distribute).

The reason why it is of great importance to differentiate the basic consonants from their counterparts with complementary features, is that each symbol that represents each speech sound is phonemic in nature. In other words, each symbol has the power to influence the meaning of the word it is used in. For example, in the above examples, the word “tola” means “to apply or smear oil”, but when the letter “h” is inserted following on the symbol or letter for the aspirated consonant, the word becomes new word altogether as “thola” which means “to appoint somebody to do a certain job”. Even when the letter “h” is inserted following on the symbol for the aspirated consonant “p” to become “ph”, the whole word becomes new as <phaka> now means “to distribute things”. So, the word “tola” only means “to apply or smear oil or something liquid” and nothing else, just like the word “thola” would mean “to appoint somebody to do a certain job” and nothing else. The same applies to murmured speech sounds or consonants that have been discussed above. If these murmured sounds are not properly represented in practical script, the intended meaning of the speaker is tampered with. For example, the word “beka” in “Mbuti ya beka” (The goat gives birth) can only mean “to give birth” and nothing else.

The importance of representing different speech sounds using different symbols is not only meant to get the correct meaning of the words, but also to eradicate the confusion in the reading of the words. If, for example, two speech sounds are represented by one letter, it is often a problem for reading because the reader may

not be sure which sound to pronounce when the reader sees a given symbol. In the sentence “Mufana loyi wa beka” the reader may not know whether to pronounce the underlined consonant as a **voiced bilabial explosive** or as a **murmured bilabial explosive** because of underrepresentation. This is because the underlined consonant is representing two different speech sounds and the potential for choosing the wrong one is very high.

From the above discussion, it is clear that representing each speech sound with its relevant symbol is of paramount importance. It enables the writers to avoid meddling with the meanings of words and also avoid the confusion that may arise in the reading of such consonants or speech sounds, which had not been properly represented. It is against this background that voiced explosive consonants and their murmured counterparts should be written differently. The following section illustrates how this should be done:

THE VOICED BILABIAL EXPLOSIVE [b]

The **voiced bilabial explosive** [b] should be represented by the symbol as in the following words:

ku **b**ambhela (to leave over for somebody)
ku **b**ethela (to peg)
ku **b**ika (to declare or to announce)
xi**b**ochwa (a prisoner)
ku **b**utha (to gather especially cattle after grazing)

THE MURMURED BILABIAL EXPLOSIVE [bʰ]

The **murmured bilabial explosive** [bʰ] should be represented by the symbol <bʰ> as in the following words:

ku **bʰ**aleka (to run away)
bʰereta (a beret)
ku **bʰ**ikula (to sob)
ku **bʰ**oxa (to pierce)
ku **bʰ**uluka (to explode)

THE VOICED BILABIAL NASAL COMPOUND [mb]

The **voiced bilabial nasal** [mb] should be represented by the symbol <mb> as in the following words:

matmba (strength)

mbeleko (ability to bear)

timbita (earthenware pots)

mbodza (badly cooked porridge)

ku mbuwetela (to lull a child to sleep)

THE MURMURED BILABIAL NASAL COMPOUND [mbʱ]

The **murmured bilabial nasal** [mbʱ] should be represented by the symbol <mbh> as in the following words:

timbhandzukwana (cracks on foot due to cold)

ximbhembhe (rain with strong wind)

mbhinyi (a handle for a tool like an axe)

mbhongolo (a donkey)

mbhuri (a handsome person)

THE VOICED ALVEOLAR EXPLOSIVE [d]

This study did not come across Xitsonga words with a **voiced alveolar explosive** appearing independently except in the nasal compound <nd>.

THE MURMURED ALVEOLAR EXPLOSIVE [dʱ]

The **murmured alveolar explosive** [dʱ] should be represented by the symbol <dh> as in the following words:

ku **dh**amurhuta (pull things apart adhering the one to another)

ma**dh**eha (leg rings worn on ankles by females)

xi**dh**ikizela (a pot lid)

dhodhomedzi (a half-wit, a person who is slow to understand)

xi**dh**ulu (an anthill)

THE VOICED ALVEOLAR NASAL COMPOUND [nd]

The **voiced alveolar nasal compound** should be represented by the symbol <nd> as in the following words:

ndaweni (to announce oneself as when arriving in a village)

ndewulani (a swallow)

xi**nd**i (a residential site)

xi**nd**olo (a woman-chaser)

xi**nd**udzi (a weevil)

THE MURMURED ALVEOLAR NASAL COMPOUND [ndh]

The **murmured alveolar nasal compound** should be represented by the symbol <ndh> as in the following words:

ndhawu (a place or space)

ku them**ndh**ela (to praise)

ndhindhani (a Shangaan traditional skirt)

po**ndh**o (a pound sterling)

ndhundhuma (a heap of soil or a mine dump)

THE VOICED ALVEOLAR AFFRICATE [dz]

This study did not come across Xitsonga words with a **voiced alveolar affricate** appearing independently except in the nasal compound, <ndz>.

THE MURMURED ALVEOLAR AFFRICATE [dzʰ]

The **murmured alveolar affricate** [dzʰ] should be represented by the symbol <dzh> as in the following words:

dzhana (hundred)

ku dzhenengela (to balance a load on one's head)

ku dzhika (to sink to the bottom)

dzholonga (a quarrel or dispute)

ku dzhunisa (to extol or praise)

THE VOICED ALVEOLAR NASAL COMPOUND [ndz]

The **voiced alveolar nasal** [ndz] should be represented by the symbol <ndz> as in the following words:

ndzalo (abundance especially in crops)

ndzeyana (flock of birds feeding or flying together)

ndzisana (a younger brother or sister)

ndzovolo (bride price for wife)

ndzundzani (a sly person)

THE MURMURED ALVEOLAR NASAL COMPOUND [ndzʰ]

The **murmured alveolar nasal** should be represented by the symbol <ndzh> as in the following words:

ndzhaka (estate or legacy)

ndzheko (a long-handled drinking calabash)

ndzhiyi (a man who sets traps and snares)

ndzhombo (sting of a bee or wasp)

ndzhuti (a shadow)

THE VOICED ALVEO-LATERAL EXPLOSIVE [dl]

At the time of conducting this study (2015-2016), there were no words in Xitsonga with a **voiced alveo-lateral explosive** [dl] appearing independently except in the nasal compound <ndl>.

THE MURMURED ALVEO-LATERAL EXPLOSIVE [dl̥]

The **murmured alveo-lateral explosive** [dl̥] should be represented by the symbol <dlh> as in the following words:

- ku **dlh**ayetela (to kill in large number)
- ma**dlh**eke (light drink made of porridge)
- ku **dlh**idlhimbetana (to push each other forward by the scruff)
- ku **dlh**okodlha (to poke at or into a hole repeatedly)
- xi**dlh**uwana (a species of fish with spike on the back)

THE VOICED ALVEO-LATERAL NASAL COMPOUND [ndl]

The **voiced alveo-lateral nasal compound** should be represented by the symbol <ndl> as in the following words:

- ndl**ati (lightning)
- ndl**eve (an ear)
- mukh**ndl**i (a crusher)
- ndl**opfu (an elephant)
- ndl**uwa (a species of groundnut)

THE MURMURED ALVEO-LATERAL NASAL COMPOUND [ndl̥]

The **murmured alveo-lateral nasal** should be represented by the symbol <ndl̥h> as in the following words:

ndlhayetelo (the act killing in numbers)

ndlhekandlheka (to be tossed about)

ndlhindlhimbetano (the act of pushing each other to and fro)

ndlhokodlho> (the act of poking at or into a hole repeatedly as in pipe)

ndlhudlho (the act of stirring liquid with a spoon or a stirring stick)

THE VOICED VELAR EXPLOSIVE [g]

This study did not come across Xitsonga words with a **voiced velar explosive** appearing independently except in the nasal compound, <ng>.

THE MURMURED VELAR EXPLOSIVE [gh]

The **murmured velar explosive** [gh] should be represented by the symbol <gh> as in the following words:

righava (a riding ox)

xighevenga (a person who goes about beating people and rob them)

ku **ghingiriteka** (to be always busy)

maghoya (wild cats)

ghuwela (an old buffalo bull)

THE VOICED VELAR NASAL COMPOUND [ng]

The **voiced velar nasal compound** should be represented by the symbol <ng> as in the following words:

risinga (a dried sinew used as a thread)

ngengendza (a strong sturdy earthen vessel)

ku **ngirimela** (to go down a slope)

xim**ngolwana** (a species of a very stingless bee)

tinguva (seasons)

THE MURMURED VELAR NASAL COMPOUND [ngʰ]

The **murmured velar nasal compound** should be represented by the symbol <ngʰ> as in the following words:

xingʰana (friendship)

mangʰenelo (introduction)

mangʰimani (a very short person)

ngʰohe (a face)

ku ngʰunyuta (to roll the buttocks sideways in dancing)

5.3 RECOMMENDATIONS

As a general principle, sounds which contrast in a language should be represented with different symbols. That is, if separate *phonemes* are established, such as /r, l/ based on a contrasting word set, such as “river, liver”, these need separate *graphemes* <r, l> in the orthography. However, in the contrary, this study reveals that there is sufficient empirical evidence that the Xitsonga orthography developers mismatched the representation of murmured speech sounds such as the murmured bilabial explosive [bʰ], the murmured alveolar explosive [dʰ], the murmured alveo-lateral explosive [dlʰ], and the murmured velar explosive [gʰ]. There is no one-to-one correspondence between these murmured speech sounds and their orthographic symbols. This lack of sound-symbol correspondence is a cause for concern as it affects the intended meaning of the speakers in a particular discourse and also makes the learning and teaching of phonics more complicated.

It is, therefore, recommended that the identified murmured speech sounds as revealed by this study, should be correctly captured in orthographic script for the following reasons:

❑ Teachability and Learnability

Deep orthographies, that is, overrepresentation and underrepresentation, bring with them a cost to learners, teachers and education providers. Learners experience a

higher level of frustration, resulting in possible demotivation or failure and even increased learning time. For the educational system, this represents increased investments of time, people resources and funds. Therefore, if the murmured speech sounds are properly represented, it will be easier for educators to teach phonics and the learners will not experience a higher degree of frustration and more time and resources will be saved in the teaching and learning of reading the language.

❑ **Readability**

Overrepresentation and underrepresentation cause confusion to the reader because the reader must first decide which speech sound the symbol represents in the process of reading. Thus, if the murmured speech sounds are properly represented, it will be much easier for reader to read as overrepresentation and underrepresentation shall have been eradicated by having one speech sound represented by one symbol and one symbol representing one sound. The reader will, as a result, be sure which sound to pronounce when he sees a given symbol.

❑ **Harmonising with other related languages**

Multilingualism is a natural part of the social environment for most languages of the world, and few language communities exist in isolation. As South Africa is a multilingual society, people often want to learn to read additional languages as well as their own. The correct capturing of murmured speech sounds will, therefore, facilitate transfer of harmonisation to other related languages so that other people are likely to want to read and understand it. The premise is that harmonising writing systems minimises the effort required to transfer reading and writing skills from one language to another.

❑ **Authorship**

Overrepresentation is a problem for writers. When the writer is writing a word, he must choose between two symbols for the same psychological sound (phoneme), and the potential for choosing the wrong one is significant, unless there is a simple

rule to follow. Thus, if the murmured speech sounds are correctly represented, it will be much easier for authors to write the correct murmured consonants as overrepresentation shall have been eradicated.

□ Practical production

A major challenge for orthographies in the past was the practical problem of special symbols for adapted Roman alphabets. Symbol options depended on typewriters or local printer capabilities. Rather than using a non-Roman symbol such as <ɔ>, people resorted to modifying typewritten symbols by underlining, strikethroughs, and so on. Currently, with the near-universal use of computers, and direct printing from them, there are not many limitations on what symbols can be used for. There is, thus, no technical reason not to use the most linguistically suitable symbols for the suggested change in orthography if it is acceptable to the local population. Over and above that, introducing this proposed change to the existing orthography will come at no cost as the symbol “h” that has to be inserted following the murmured consonant is not going to be invented; it is already there in the typing and printing facilities.

□ Retention of existing literature

This study does not call for a wholesale overhaul of the Xitsonga orthography; a rewrite of the Xitsonga books that are in circulation is not necessary. The suggestion is that the books that are going to be written henceforth should utilise the correct representation of the murmured speech sounds. The existing books should be retained and gradually phased out.

In spite of all these benefits that the change in the murmured speech sounds may bring to the Xitsonga language, the change should not be imposed on the Xitsonga-speaking people if they do not want it. The study may legitimately point out these benefits, but the choice is up to the Xitsonga-people themselves. In order to make the

implementation of this proposal more effective, it is recommended that the following *modus operandi* be followed:

□ **The Xitsonga Technical Committee for Standardisation**

The Technical Committee for Standardisation should first do adaptation testing of the proposed new orthography to check on the acceptability and learnability of the proposals by the Xitsonga-speaking people and those that are knowledgeable in Xitsonga as a language. This can be done informally while observing qualitatively how readers respond to the new recommendations or it can take a more formal and scientific approach. After satisfying itself that the Xitsonga-speaking people themselves deem the changes necessary, it is then that the Technical Committee for Standardisation can duly advise the National Language Body on the revision of the orthographic representation of Xitsonga murmured consonants as recommended by this study.

The National Language Body, as the final quality control authority on all matters pertaining to language including the standardisation, orthography, the production of signs and spelling rules of the various official languages, should in turn advise the Pan South African Language Board (PanSALB) for purposes of ratification and implementation of the changes in the orthography of the Xitsonga language thereof. The PanSALB should, in turn, formally advise other organs of state such as the Department of Basic Education, Department of Arts and Culture and also Hansard on the implementation of the recommendations as per this study. Other ministries, such as Health, Justice, Communications and so forth, should also be alerted of the recommendations.

□ **The Department of Basic Education**

On receipt of the necessary changes in the orthography of the Xitsonga language from PanSALB, the Department of Basic Education should start implementing the changes by training educators and language practitioners, in order to teach the

recommended orthography from Grade R. The department should also distribute booklets and notices to schools and other places to conscientise all relevant stakeholders about these new developments in the orthography of the Xitsonga language. The department should also invite people to write new Learning and Teaching Support Materials (LTSMs) in the revised orthography. The LTSMs should, inter alia, include language manuals and literary works.

❑ The Department of Arts and Culture

On receipt of the information on the recommended changes in the orthography of the Xitsonga language from PanSALB, the Department of Arts and Culture should, in turn, inform all its stakeholders such as writers' associations, publishers' associations, libraries in the three tiers of government and all other relevant stakeholders who are involved in the development of books.

❑ Publishers' and Writers' associations

Publishers' and Writers' associations should, on receipt of this necessary information on the few changes in the orthography of the Xitsonga language, inform authors and, if need be, conduct workshops to keep their writers abreast with the new developments. The associations may also host literary competitions, in order to promote the new orthography.

❑ Media houses

Both electronic and print media should also encourage the use of the new orthography as defined in the study. Media houses, in particular those who broadcast, locally and nationally, through the medium of Xitsonga, should also promote the new Xitsonga orthography by writing news bulletins using the new orthography. They should also include debates and discussions about these recommendations in their programmes. Xitsonga newspapers and magazines should

also be involved in making use of the new orthography in a conspicuous manner by, for example, using it in adverts, cartoons, articles, newspaper reports and so on.

5.4 CONCLUSION

After using the qualitative research method in an attempt to address the research problem, in particular the mismatch between murmured speech sounds and their orthographic representations, the study found out that murmured speech sounds, such as the murmured bilabial explosive [bʱ], the murmured alveolar explosive [dʱ], the murmured alveo-lateral explosive [dlʱ], and the murmured velar explosive [gʱ] are indeed misrepresented in practical script. Although linguists such as Meinhof (1932) discovered earlier on that there are indeed murmured speech sounds which are not properly represented in the Xitsonga language, nothing has been done by scholars to address this problem.

This is evident in the literature reviewed in the study. It became very clear, from the data amassed from existing Xitsonga literature and from Xitsonga-speaking people solicited through interviews that the Xitsonga orthography is teeming with irregularities which misrepresent the spoken word of the Xitsonga language. Literature books, grammar books, reference books and other texts attest to all these discrepancies. It should also be mentioned that irrespective of what other scholars like Meinhof (1932) who postulated that reforming the Xitsonga orthography may cause a lot of damage taking into account the large literature already in existence, this study has proved beyond reasonable doubt that leaving this glaring misrepresentation of murmured speech sounds unattended to has caused more damage than good in the development of the Xitsonga language.

In conclusion, it is, therefore, strongly recommended that when a speech sound is murmured, the feature of murmur should be denoted in both phonetic and orthographic scripts. In phonetic script, it should be indicated by the symbol [ʱ] following on the phonetic symbol for the murmured consonant, for example, [bʱ] as in [bʱɛɛ] (a bell) while in practical script the murmur should be denoted by the letter

“h” following on the grapheme for the murmured consonant, for example, <bh> as in <bhele> (a bell).

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ANNEXURE A: LETTER OF REQUEST FOR PARTICIPATION IN RESEARCH PROJECT

Dear Potential Interviewee/Participant

This letter serves to request for your participation in my research project which focuses on THE MURMURED SPEECH SOUNDS AND THEIR REPRESENTATION IN THE XITSONGA ORTHOGRAPHY.

I am a Master of Arts student in the Department of Communication and Applied Language Studies in the School of Human Social Sciences at the University of Venda.

As a participant you will be required to give oral or written responses to straight forward questions in relation to speech sounds and their practical orthography in the Xitsonga language.

Some of your oral responses may be recorded for ease of reference in transcription and the interview will be treated as confidential and used only for the purposes of this study.

Your participation in this research project is voluntary and you are at liberty to withdraw from the proceedings in the event that you may feel uncomfortable during the course of the interview without any penalty or recrimination.

SAKIE ISAAC SHABANGU

Name of Project Leader

ANNEXURE B: CONSENT FORM BY PARTICIPANT

I, the undersigned, do hereby acknowledge that I fully understand the explanation and purpose of this research project as explained by Mr Sakie Isaac Shabangu, a Master of Arts degree student from the University of Venda and fully and consciously agree to fully participate in the research study. In entering into this agreement, I fully understand the following terms and conditions:

1. That my participation is voluntary and for no financial gain.
2. That I am at liberty to withdraw or discontinue participating at any given given without penalty.
3. That the interview will be treated as highly confidential by the researcher and information gathered in this interview will be used for the research purposes only.

Participant's Full Names:.....

Thus done and signed on the day of at

Participant's Signature:

Researcher's Full Names:.....

Thus done and signed on the day of at

Researchers's Signature: