(RESEARCH ARTICLE)

Identification, description and classification   of consonants and vowel phonemes in Nambya language of Hwange district in Matabeleland North Province in Zimbabwe

Vincent Nyoni [1, *] and Godfrey Kazembe Tambulukani [2]

[1] Institute of Distance Education, School of Education, University of Zambia, Zambia.
[2] School of Education, Department of Language and Social Sciences Education, University of Zambia, Zambia.

Abstract

Nambya language has been scantly researched on. While it has been introduced at primary, secondary and tertiary level, there is no consensus on the agreed phonemes. With the background of learning a Language of Wider Communication (LWC), the LWC has influenced the way Nambya is written or spelt.

This paper investigates the phonemes in Nambya, a previously marginalised language spoken by an estimated 117 000 inhabitants (https://joshuaproject.net/people_groups / -retrieved 16 June 2022.) found in Hwange district. The study employed a qualitative design and was conducted in Hwange district in western province of Zimbabwe. The study attempted a systematic description and classification of Nambya consonants, and vowels using a descriptive framework. This research aimed to establish and provide a detailed study of the consonant sounds available in the language. The target population were the mother tongue speakers who had either learnt the language at formal setups or were natural speakers of the language. Expert and homogeneous purposive sampling techniques were applied to select participants and the sample size was ten. Data was generated through semi structured interviews and focused group discussions. It was also collected through primary and secondary sources and analysed according to consonantal and vowel structures of the language. The study found that Nambya has basic 5 vowel system. The consonant structure includes single and modified consonants. Long vowels are restricted to (i) the future tense, future (Incidental) Indicative, affirmative, other persons, (ii)in the third person singular of negative tenses and present indicative negative.

1. Introduction

According to Guthrie's (1948) classification of Bantu languages, Nambya belongs to Zone S.10 under the Shona group of languages. He further treats it as a sub-dialect of Kalanga, which he classifies as a dialect of Shona. Similarly, Doke (1931:14) places Nambya in the Kalanga group, what he calls the Western group of Shona and this group comprised of the following languages: Nyai, Nambzya, Rozvi, Kalanga, Talahundra, Lilima or Humbe and Peri. Doke (1931) further notes that the Nambzya, commonly called Nanzwa or Nambya, were an offshoot of the Nyai, and are found in Wankie (known as Hwange in modern day Zimbabwe) and Nyamandhlovu districts.

According to the Maho, J. Filip. (2009:90) Online NUGL New Updated Guthrie List it reclassifies Nambya to the S16B Nambya (nmq) group, which affirms that it is a standalone language and relatively safe from extinction.

It is generally agreed in Zimbabwe that serious studies on so called previously marginalized minority languages, are necessary if these languages are to be developed and promoted. Although the Zimbabwe Education Act of 1987 (as

* Corresponding author: Vincent Nyoni

amended in 1990) in Section 55 of Part XI has provisions for the teaching of minority languages in areas where they exist, very little teaching of these languages is actually being done (Chimhundu et al., 1998:26). This can be explained partly by the lack of relevant research in and documentation of these languages, which also results in lack of written materials for use in teaching. Interest has now developed in studying, documenting and promoting the use and teaching of marginalised languages like Nambya in the same way that the nation is doing for Shona and Ndebele. The National Constitution of Zimbabwe (2013) recognises Nambya as one of the official languages in Zimbabwe, which lacks literature and also needs promotion. One aspect of Nambya language not researched and documented is phonemic symbols which this study has targeted.

The development of Nambya language is essential because, as Chabata, (2001:5) affirms that "language development is part of the infrastructural development of any country." The study of phonetic symbols seeks to affirm the correct writing system, orthography that will be used to produce a standard way of writing Nambya language and affirm that it is a standalone language. The objective of this research was to identify and classify the phonemic consonant sounds and vowel phonemes that can be used in writing of the standardized language. The study revealed that there are seventeen phonemic and twenty phonetic consonants in Nambya with syllabic features such as aspiration and consonant processes like nasalisation, labialisation and palatalisation. The contribution of this research is the provision of the consonantal inventory of the language which will be used to standardize the writing system. The study is also an important documentation of an endangered language, which had hitherto received little attention. It is recommended that research be carried on various grammatical aspects of the language, tone analysis and its phonology.

1.1. Theoretical framework

The role of theory in language descriptions has been and is still widely debated among linguistic scholars. (Haspelmath 2010, Dryer 2006, Hyman 2001a, Rice 2006, Dixon 2010a. Dryer (2006) differentiates between descriptive theories which explain "what languages are like," and explanatory theories which explain "why languages are the way they are." In this study descriptive theories, where possible are used.

For the phonological and morphological description of Nambya, basic linguistic theory has been employed in this study. This does not mean the specific theory outlined by Dixon in his work titled Basic Linguistic theory (Dixon 2010a, 2010b, 2012). Rather the accumulated linguistic knowledge of basic linguistic concepts like phoneme, various parts of speech, grammatical categories and other concepts was used. Nichols (2007:232) argues that Basic Linguistic Theory is "the body of knowledge about grammar built over the years by analysis and comparison of different languages." This body of knowledge is understood as a theory in its own right and Dryer (2006:211) refers to it as "traditional grammar minus its bad features (such as a tendency to describe all languages in terms of concepts motivated for European languages), plus necessary concepts that are absent from traditional grammars." The purpose of use of this basic language theory is avoiding forcing data into pre made mould, but rather to allow the language to be described on its own terms, employing linguistic knowledge (Gill 2001).

Like other recent works in Bantu tone (Marlo 2008b) and African linguistics (Paster 2013), the study pursued Marlo (2008) who proposed the I-language approach to linguistic theory, which assumes that the object of inquiry is the internal, intentional grammars of individual speakers, not something "out there" in the speech community (Chomsky 1986; see Isac & Reiss 2013). From this perspective and in light of the complexity of the data required for a study in Bantu language, it was important to work extensively with individual mother tongue speakers of Nambya, taking care to keep the data from each speaker separate for analysis.

1.2. Research paradigm

The research paradigm that was used is the interpretivism. Creswell (2014) describes a research paradigm as a basic set of beliefs that guide the action of the researcher. In other words, the paradigm adopted, directs the researchers' investigation which includes data collection and analysis procedures.

The Interpretivism is referred to as subjectivist or nominalist theory that believes that reality is dependent on social actors and assumes that individuals contribute to social phenomena (Roller & Lavrakas, 2015). This paradigm allowed the participants to tell their own story from their own perspective. Sol and Heng (2022:93) state that Interpretivist researchers are particularly interested in the social world, where "our knowledge of reality is gained only through social constructions such as language, consciousness, shared meanings, documents, tools, and other artifacts" (Klein & Myers, 1999:69). Interpretivism as epistemology guided the researcher to collect data in an interactive way and attempt to understand the selected participants' views on phonetic symbols in Nambya.

2. Material and method

In this study, the researcher utilised a descriptive survey, which is qualitative in nature. With this in mind it is important to understand the purpose and characteristics of qualitative. Like other forms of qualitative research, a descriptive survey seeks for meaning and understanding of social phenomena and the researcher is the primary instrument of data collection and analysis and the final product is descriptive in nature.

The researcher observed and collected valid & reliable responses, and analysed them. This has been chosen as it allowed the researcher to explore the informants' understandings interpretation and use of phonetic symbols in Nambya language.

The participants were selected using homogenous sampling techniques. The sampling techniques allowed the researcher to select participants who had practical experience and were involved in teaching or writing of some material in Nambya. Purposive sampling was used. Nikolopoulou (2020) states that in convenience sampling, participants were selected because they are accessible and therefore relatively easy for the researcher to recruit. Purposive sampling refers to a process where participants are selected because they meet criteria that have been predetermined by the researcher as relevant to addressing the research question (e.g., people of a particular age or other demographic category).

Therefore, the study targeted 10 mother tongue speakers of Nambya living in areas where it is believed that original and 'undiluted' Nambya may exist. These areas are Cross Dete, Makwandara, St Marys, Mwemba, and Nejambezi rural areas. Of these, 4 respondents were located in town, the justification for choosing them is that they are involved in teaching Nambya language at primary, secondary and tertiary levels. Five members of the Nambya Cultural Association were interviewed to establish places where the prestige dialect was still in existence. Another method that was used to gather data was discussion during a Phonetic lecture and Alphabet Design Workshop (ADW) interaction. Two students enrolled for the Diploma in Bible translation course, who speak Nambya were involved in a group discussion. Attention was focused on phonetic symbols in the Nambya language and transcription of sentences and short stories.

Data was generated using semi-structured interviews, focused group discussions and observations, and reference to secondary data.

3. Results and discussions

This study used the qualitative design. This design was chosen as it would help the researcher to explore and analyse information on tone contrast patterns and phonemic symbols. Qualitative research places emphasis on natural settings rather than laboratories and fosters pragmatism in using multiple methods for exploring a topic (Marshall and Rossman, 2011). Qualitative research is sometimes defined as *interpretive research*. All research requires interpretations, but interpretive research is investigation that relies heavily on observers defining and redefining the meanings of what they see and hear. (Stake 2010:36)

According to Ulin, Robinson and Tolley (2004), qualitative research methodology often relies on personal contact over some period of time between the researcher and the group being studied. The researcher built a partnership with study participants and this led to deeper insight into the context under study, adding richness and depth to the data. Thus, qualitative methodologies are inductive, that is, oriented toward discovery and process, have high validity, are less concerned with generalizability, and are more concerned with deeper understanding of the research problem in its unique context (Ulin, Robinson and Tolley, 2004).

3.1. Data gathering

For the purposes of phoneme inventory 10 questionnaires were distributed to 10 participants, who were practicing teachers, cultural association members and graduates from the university who had studied Nambya. A group discussion was also held where students studying a Diploma in bible Translation (DBT) were involved in designing the Alphabet for the Nambya language during an Alphabet Design workshop. (ADW, 2022).

3.2. Vowels

The Nambya vowel system is made up of five vowels. These vowels are sounded separately even when they follow each other in a sequence without a consonant in-between them.

The following are the vowels used in Nambya:

Table 1 Vowels

Phonetic symbol	Phoneme	Word	Gloss
[a]	/a/	zana	'play'
[e]	/e/	leba	'say'
[i]	/i/	iwi	'you'
[o]	/o/	meno	'teeth'
[u]	/u/	unhu	'person'

3.3. Diphthongs

Table 2 Diphthongs

Phoneneme	example	gloss
/ai/	amai	'mother'
/ou/	izhou	'elephant'
/ei/	chilei	'cart'
/eu/	ibheula	'heavy axe'
/ia/	nia	'defecate'

Each of the vowels is one pure sound. Usually there are no diphthongs. Vowels follow each other in Nambya but they do not always coalesce as mentioned earlier. When two vowels follow each other, they are pronounced separately.

3.4. There are several consonants in the language

The research identified seventeen alphabets in Nambya.

Table 3 Consonants

Phoneme	IPA	example	'gloss'
/b/	[β]	bona	'see'
/d/	[d]	dimbwa	'believe'
/f/	[f]	ifa	'die'
/g/	[g]	igukulume	'cock
/h/	[h]	ihobe	'fish'
/j/	[dʒ]	ijoka	'granary'
/k/	[ɣ]	kungumba	'home'oo
/l/	[l]	ludo	'love'
/ l/	[ɾ]	lala	'sleep'
/m/	[m]	ima	'stand or wait'
/n/	[n]	nene	'grandmother'
/p/	[p]	pila	'sacrifice'

/s/	[s]	seka	'laugh'
/t/	[t]	tala	'draw'
/v/	[v]	ivula	'water'
/w/	[w]	wenda	'has gone'
/y/	[j]	yeya	'think'
/z/	[z]	zana	'play'

Table 4 Modified alphabets

/ch/	[tʃ]	chenama	'be surprised'
/hw/	[hw]	ihwa	'flying termites'
/sh/	[ʃ]	shala	'choose'
/bh/	[b]	bhisa	'remove'

A consonant modification is an addition or alteration to the basic way that a consonant is articulated.

Table 5 Prenasalised consonants

/nd/	[nᵈ]	undomo	'mouth'
/nk/	[nᵏ]	unkazwaji	'brother or sister of opposite'
/ng/	[ŋg]	ingombe	'cattle'
/ngw/	[ŋgʷ]	ngwina	'enter'
/nh/	[nʰ]	inhiba	'well or spring'
/nj/	[nʒ]	injiba	'dove'
/ns/	[nˢ]	insuvu	'black berries
/nt/	[nᵗ]	untwe	'line'
/nw/	[nʷ]	inwa	'drink'
/ny/	[nʲ]	nyepa	'lie'
/nz/	[nᶻ]	inzila	'way or road
/nch/	[ncʰ]	inchena	'white'

Prenasalised consonants are sequences of a nasal and a following obstruent.

3.5. Labialized consonants

Labialisation is a prosody that causes the rounding of all vowels and velar consonants in the phonological word. (Ernst-Kurdi 2017:46).

Table 6 Labialised consonants

Phoneme	IPA	example	gloss
/bw	[βw]	bwata	'hide'
/dw/	[dʷ]	dwaya	'swim'
/fw/	[fʷ]	fweba	'to smoke'

/gw/	[gʷ]	igwa	'treeless ground'
/hw/	[hʷ]	buhwa	'grass'
/jw/	[ʒʷ]	jwamula	'grab away'
/kw/	[kʷ]	kwiba	'steal'
/lw/	[lʷ]	lwala	'be sick'
/nw/	[nʷ]	nwa	'drink'
/pw/	[pʷ]	pwanya	'crush'
/sw/	[sʷ]	swibilija	'whistle'
/tw/	[tʷ]	twiga	'carry on the head'
/vw/	[vʷ]	vwima	'hunt'
/zw/	[zʷ]	zwala	'give birth'

3.6. Palatalized consonants

The term 'palatalisation' denotes a phonological process by which consonants attain secondary palatal articulation or shift their primary place to, or close to, the palatal region. This usually occurs under the influence of an adjacent front vowel and/or a palatal glide. Palatalization also refers to the process of sound change in which a non-palatal consonant, like 'k', changes to a palatal consonant, like 'ch' or 'sh'; e.g., French chaîne (pronounced with an initial 'sh' sound) developed from Latin catena (pronounced with an initial /k/ sound). Sikota-Habwanda (2018:44) Nambya has the following palatalized consonants.

Table 7 Palatalized consonants

Phoneme	IPA	*example*	gloss
/bhy	[bʲ/	ibhya	' new one'
/by/	[βj]	byala	'to plant'
/py/	[pj]	pyaila	'sweep'
/dy/	[dʲ]	dyobokela	'sink into the muddy'
/ly/	[lj]	ilya	'eat'
/my/	[mʲ]	myuja	'make to get deep'
/ty/	[tʲ]	tyamba	'press buttons'

Table 8 Aspirated consonants

Phoneme	IPA	Example	gloss
/fh/	[fʰ]	fha	'vomit'
/kh/	[kʰ]	khubula	'scald with hot water'
/mh/	[mʰ	mhalaja	'circumcise'
/nh/	[nʰ]	nhuwa	'smell'
/ph/	[Pʰ]	phwi	'wild fruit'
/th/	[tʰ]	inthe	'voluntary saliva dripping'
/wh/	[wʰ]	iwha	'listen'
/zh/	[zʰ]	izhamu	'breast'

Kadenge M (2010:239) in his study on Some Segmental Phonological Processes Involving Vowels in Nambya: A Preliminary Descriptive Account, describes Nambya phonological processes involving vowels such as vowel harmony, glide formation, vowel elision, and vowel coalescence. This study categorizes these phonological processes as assimilation and hiatus resolution strategies. After analyzing a sample of data that he collected as part of his pilot study for this study he discovered that Nambya shares many of its structural characteristics with typical Southern Bantu languages such as Shona, Kalanga and Ndebele. These features include the fact that Nambya is tonal and has a simple, symmetrical, unmarked phonemic five vowel system comprising /a/, /e/, /i/, /o/ and /u/ and a typical Bantu consonant-vowel (CV) syllable structure. Although Nambya has onsetless syllables, their occurrence is restricted to the word initial position (see Kadenge, 2007). Kadenge concluded that Nambya is typically a Southern African Bantu language.

3.7. Vowels

Table 9 Vowels

	Front	**Central**	**Back**
Close	i		u
Mid	e		o
Open		a	

Each of the vowels is one pure sound. Usually there are no diphthongs: When two vowels follow each other, they are pronounced separately. Vowels follow each other in Nambya but they do not always coalesce as mentioned earlier. When two vowels follow each other, they are pronounced separately. Moreno (2008:1). In writing or spelling, when a higher vowel (*i, u*), on which the accent is, precedes a lower one (*a, e, o*) which has no accent, a semi-vowel (*y,* or *w*) is inserted, For example:

(i)ndasiya,   besiziye,   bhotiyo,   chikuwa,   Nyantuwe,   impuwo.

And not:(ii)ndasia;   besizie;   bhotio;   chikua;   nyantue;   impuo

However, if the accent is on the lower vowel (and there is no diphthong), no semi-vowel is written, e.g.: *Samueli, Finiasi.*

When a lower vowel precedes a higher one, the semi-vowel is not inserted For example:

-ei;   -ae;   -au;   -ao

(i) amai   not 'amayi'

 (i) chilei   not 'chileyi'

 (iii) lyapauka   not 'lyapawuka'

 (iv) yabheuka   not 'yabhewuka

 (v) izhou-   not 'izhowu'

 (vi) nkwaina   not 'nkwayina'

 (vii) bhaunula   not 'bhawunula'

 (iix) tataula   not 'tatawula'

When reading therefore, the semi vowel *y /w* which phonologically is sounded, it then is deleted.

In some cases there is coalescence of vowels: a + i = e;   a +u =o ;   i̦+a=a;   a+i=a

For example:

a+i =e (*na imbuji = nembuji*) ;

a+i=a (na +iye= naye)

a + u = o (*ndaka-um-bona = ndakombona*).ba-u-ndoba=bondoba

i+a=a (imbuji+ana =imbuj-a-na

However, if the accent is on the lower vowel (and there is no diphthong), no semi-vowel is written, e.g.: *Samueli, Finiasi*.

Nambya language has long or double vowels. From the field work, it has been established that a long vowel is written:

(i)in the future tense. For example:

 ndoonda- I will go

banoozha- they will come

(ii)Future (Incidental) Indicative, affirmative

ndi-noo-tenga / ndoo-tenga = I will buy

other persons:

(i)1st per: sing: ndi-noo-tenga;/

(ii)1st per:pl: ti-noo-tenga/too-tenga

 (iii)2nd pers: sing: u-noo-tenga;

(iv)2nd pers:pl: mu-noo-tenga

(v)3rd pers: sing: unoo-tenga 3rd pers: pl: ba-noo-tenga /

(ii)in the third person singular of negative tenses. For example:

3rd. person sing.: *a-a-too-tizha he/she will not run away*

aa-too-ziba/he/she will not know

aana- he/she does not have present indicative negative:

3rd pers:sing

aa-toziba- he/she does not know

(ii) and in other cases (e.g. *keela*)/last born

Nambya language which also, like many other Bantu languages, has a highly agglutinative morphology. The findings revealed that the following are the Phonetic consonants in Nambya.

3.8. Phonetic consonants

The Nambya phoneme *-l-* is unusual, and must be learned cautiously. l/r are allophones of the same phoneme. To unfamiliar hearers, the phoneme may sound more like an *r*. It could be said that it is half way between *l* and *r*. (Probably it is in the process of becoming an *r,* as has happened already in Shona, where the original *l* is no longer used)(Moreno:2008:2). It can be assumed that the phoneme -l- is in its revolutionary state where it is becoming more of the trill -r- and at the same time becoming less of -r-

The symbols *ny, c, j*, and *y* are taken from the 'Africa' alphabet, a set of symbols usually employed in the description of African languages. Their phonetic values in IPA (= International Phonetic Alphabet) are the following: *-ny- -ɲ-* as in Bantu nyama; *c* as *-tʃ-* in English 'chain'; *j* as *j (ʒ)* in English 'jam'; *y* as *y* in English 'yes'.

Table 10 Phonetic consonants

	Bilabial	Labio dental	Dental	Alveolar	postalveolar	Retroflex	palatal	Velar	Uvula	Glottal
Plosives	p b			t d				k g		
Nasal	m	ɱ		n		ɳ	ɲ	ŋ		
Trill				r						
Tap or flap										
Fricative	β	f v		s z	ʃ ʒ					h
Affricates					tʃ tʒ					
Lateral fricative										
Approximant							j			
Lateral approximant				l						

3.9. Phonological universals

Phonemic contrasts are language specific. Even if two languages have the same consonants and vowels, the phonemes may be different. Koroma (2019:15) states that the phoneme inventory of a language is usually presented in the form of a consonant and vowel chart. Koroma goes on to identifying phonological universals of languages. These are phonological tendencies that are generally present in most, if not all languages of the world. The most commonly occurring vowel phoneme is /a/, which is found in almost all of the languages of the world.

- The vowels /i/ and /u/ are almost as common as /a/.
- Front vowel phonemes are generally unrounded, while non-low back vowel phonemes are generally rounded.
- Low vowels are generally unrounded.
- If a language has contrastive nasal vowels, then it will also have contrastive oral vowels.
- If a language has contrasting long vowels, then it will also have contrasting short vowels.

With reference to the above citation, Nambya, as a language, abides by the stated assumptions.

- With regards to consonants, Koroma (2019) asserts that all languages have stops.
- The most common stop phonemes are /p, t, k/. The most commonly occurring one is /t/. If any one is missing it will probably be /p/ Nambya language has six oral Stops in these are /p, b, t, d, k, g/.
- The most commonly occurring fricative phoneme is /s/. If a language has only one fricative, it is most likely to be /s/.
- Almost every language has at least one nasal phoneme. If it has only one nasal phoneme itis most likely to be /n/, the second one is usually /m/. There are five (5) phonemic nasal sounds in Nambya and these have allophones, which altogether make seven nasal sounds. The phonemic nasals are /m,n, ɳ ŋ, ɲ,/   [ɱ](vii) /m/This is a bilabial nasal sound and it occurs in initial and medial position
- The majority of languages have at least one liquid phoneme.
- If a language has voiced obstruent phonemes, then it will also have voiceless obstruent phonemes.
- Sonorant consonants are generally voiced.
- If a language has fricative phonemes, then it will also have stop phonemes. There are basically eight phonemic fricative sounds in Nambya These are /f/ /v/ /f/ /s/ /z/ /ʃ/ /ʒ/.
- Languages that have affricates will also have fricatives and stops. β Affricates

An affricate is attested phonemically in Nambya and the affricate is the voiceless palatal affricate. [tʃ] and voiced [dʒ]

As already observed, the production of this affricate in Nambya involves the combination of a stop plus a fricative. It occurs in the following words in Nambya:

Phoneme	Example	IPA	Example	'Gloss'
/ch-/	/chicho/	[tʃ]	[tʃitʃo]	'yours'
/j-/	/jangu/	[dʒ]	[dʒaŋgu]	'mine'

4. Distinctive features in Nambya

Koroma (2019:31) states many centuries ago the Indian and later Greek grammarians had recognised systematic distinctions between the sounds and the identity of words in their languages. In the last few decades linguists have described these systematic relationships in terms of distinctive features, the smallest elements of phonology.

For example:

/p / and /b/ have a lot in common (stop, labial, oral) and differ only in one aspect or feature which is the voice. Similarly, /b/ and /m/ have a lot in common. They are both (labial, and voiced) but differ in nasality.

Phonemes in Nambya can be seen as bundles of such distinctive features. For example:

Phoneme	Example	IPA	example	Gloss
/p/	pubula	[p]	Puβula	' hit with a stone'
/bh/	bhisa	[b]	bisa	'remove'

We can then represent /p/ as follows:

/p/= • labial • voiceless • not nasal

Distinctive features are phonetically-based features used to describe parts and are

mostly dual, which means a particular attribute either applies (symbolized with +) or does

not apply (symbolized with -). Sometimes "unmarked" is also used (symbolized as 0).

Distinctive features are a precise and economical way to describe the distribution of certain

phonemes, allophones and phonological processes. The principle is to distinguish only as:

Table 11 Distinctive features

	-p	-b	-m	-n
Labial	+	+	+	-
Voice	-	+	+	+
Nasal	-	-	+	+

These distinctive features help to:

- Determine phonological patterning (i.e. which sounds can follow each other),
- Describe contrasts.
- Describe alternations of sounds.

4.1. Consonant features

In Nambya the major class features distinguish consonants from vowels, syllabic from non-syllabic sounds, and sonorants from obstruents. In sounds that are [- sonorant] the airstream has to pass a major obstruction. These sounds are called obstruents. For example:

[consonantal] sounds with major obstruction in vocal tract, all non-sonorant consonants are as follows: [p]   [b] [s]   [z]   [t]   [ʃ]   [ʒ]   [tʃ]   [dʒ] [syllabic] vowels and syllabic liquids and nasals [iː] [e] [aː] [m̩] [n̩] [l̩] [r̩] [+sonorant] sounds that can be 'sung' like vowels, glides, liquids, nasals (includes voiceless nasals). Sonorant speech sounds are produced without turbulent airflow in the vocal tract. For example: /a,e,i,o,u/ -l,r;, ɲ; w, y.

4.2. Place features

In Nambya we can group the consonants according to Place Features. Place features refers to those distinctive features representing the place of articulation. Place of articulation (also point of articulation) is the upper and back parts of the oral cavity (upper lips, teeth, palate, uvula, etc.), which can be completely or partially contacted by one of the (relatively mobile, active) articulatory organs (articulator). It is the point in the vocal tract where the obstruction to the airflow is made. In contrast to the articulatory organs, the places of articulation are relatively stationary.

[Labial] Labial segments are articulated with the lips like [p] [b] [f] [v] [w]. Some are [+round] and others [-round] [+/- round] [+round] are produced with lip rounding. For example:. rounded vowels 'o, u' (and labial-velar) glide [w]. All round sounds are also + labial. [Coronal] Coronal sounds are articulated with the tip and/or raised blade of the tongue(dentals, alveolar sounds and palatals). For example: [t] [d] [d] [s] [z] [ʃ] [ʒ] [tʃ] [dʒ] [n] [l] [r][+/- anterior] Anterior segments are articulated at or in front of the alveolar ridge. For example: [t̪], [d̪], [t], [d], [s], [z], [d][+/- distributed] The articulation covers a wide area (e.g. in bilabial and palato-alveolar fricatives). Alveolar and retroflex sounds are [- distributed]. Dorsal sounds are articulated by raising the dorsum of the tongue. All vowels are Dorsal sounds. [+/- high] segments produced with the tongue body raised are considered [+high]. These may be vowels or consonants. For example: [iː] [uː] [j] [k] [g] [+/- low] [+low] vowels are made with the tongue body distinctly lower than the centralposition in the oral cavity for example: [æ] [ɑː].

[+/- back] [+back] segments are produced with the tongue dorsum bunched and retracted slightly to the back of the mouth. Ex. [uː] [aː] [k] [g] **[**-back] segments are bunched and extended slightly forward. [+/- tense] This feature (mainly) applies to the position of the root of the tongue when articulating vowels. [+tense] vowels have an advanced tongue root [i] and [u] as opposed to [ɪ] and [ʊ]. This feature is often referred to as Advanced Tongue Root, though there is a debate on whether tense and ATR are the same or different features.

[Radical] Radical sounds are formed with the tongue root. This is the case for pharyngeal and glottal fricatives. [h] [ħ]. This feature is debatable among the Nambya speakers.

4.3. Manner Features

Manner of articulation is the way in which the airstream is modified during the articulation of a consonant; (oral) or (nasal) stop, fricative (both median and lateral), affricate, approximant (both median and lateral), flap, or trill. Consonants have partial or complete obstruction in their articulation. Features representing manner of articulation are:

[nasal] sounds made with lowered velum Example.: [m] [n] [ã].

[continuant] free or nearly free air flow through oral cavity: vowels, fricatives, glides, liquids [e] [s] [j] [r]. The opposite term "interrupted" and applies to sounds produced with a complete closure of the vocal tract (plosives).

[lateral] all varieties of [l] [delayed release] affricate consonants [tʃ] [dʒ] [strident] produced with higher frequency turbulent noise Ex.: fricatives and affricates, [s] [z] [ʃ] [ʒ] [tʃ] [dʒ].

5. Conclusion and recommendations

The description of consonant segments in this study was done using the descriptive methods of analysing consonants according to their place and manner of articulations and through the phonemic principle. We have established at least seventeen phonemic consonants and these consonants are /p b β t d k g tʃ dʒ m ɲ n ŋ r /l f v s w y, z/. We are hoping that this work will serve as a motivation to other researchers to delve into other aspects of this language. The study findings have established the alphabets that can be plausibly used to standardise the writing of Nambya language. The

findings have indicated the distinctive features of Nambya writing system which will be distinct from languages of wider communication or other surrounding languages that are always in contact with Nambya. It is recommended that, Nambya speakers should engage in massive and aggressive production of literature in order to cement the acceptance of the writing system. Primary and secondary course, teacher development modules, short stories, proverbs and folk stories should be the target for literature production including bible translation. While an orthography has been developed, there has not been much publicity of the document. The current status is when the people write Nambya, they are influenced by the two languages of wider communication (LWC) which are Shona and Ndebele. It is recommended that research be carried out on other linguistics aspects of Nambya. Mutasa (2006) suggests that "Africans can improve their lives and overall living standards if they use their languages in domains related to economic development." It is imperative that Nambya people should use their language in order to gain confidence in all spheres of their lives- economics, social, politics, religion etc.

Compliance of ethical standards

Disclosure of conflict of interest

No conflict of interest to be disclosed.

Statement of informed consent

Informed consent was obtained from all participants of this study.

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