# English versus Zambian Languages: Exploring some Similarities and Differences with their Implication on the Teaching of Literacy and Language in Primary Schools 

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#### Abstract

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#### Abstract

This desk study aimed at comparing English and selected Zambian Languages with a view of identifying some similarities and differences. Data was collected through author introspection and document analysis of existing literature. Publications in English and some Zambian Languages were collected from international databases such JSTOR, Cambridge Journals Online, and Palgrave Macmillan Journals. Searches for literature was extended to Google Scholar, Institutional Repository and visited the University of Zambia library in person. The documents collected were subjected to content analysis where key words, concepts and themes were picked and compared. Findings of the study revealed that English Language has an opaque orthography as there is no grapheme-phoneme correspondence while Zambian Languages have a transparent orthography where each grapheme correspond to individual sounds and that the number of graphemes is almost equal to phonemes. Literacy and language instruction would be much easier for learners in a transparent orthography than opaque. English has certain parts of speech such as articles (determiners) which are not there in Zambian Languages. Unlike English, vowel length is distinctive in all Zambian language. English and Zambian languages use alphabetic writing system with about $93 \%$ shared symbols or graphemes. These similarities and variations imply that pedagogically, if learners learn letter knowledge and decoding in a Zambian language, they will transfer such knowledge to English or any other alphabetic language and vice versa. Conversely, in areas where there are differences, literacy and language learners will face difficulties. The study recommended that teachers in early grade classes should understand the variation of English and selected Zambian languages well in their regions to guide learners in schools.


KEYWORDS: English, Zambian Languages, Structure of English, language, Literacy Instruction

## INTRODUCTION

In the teaching of foreign languages under the influence of behaviourist psychologists, it was proposed that one could teach language A to a speaker of language B by first doing a contrastive linguistic analysis of the two languages. Features that the two languages shared would be easy to teach but those that differed would be more challenging and the usual proposal was that those similar features would have to be suppressed so that they did not hinder the acquisition of those of language A (Touchie, 1986; Hatim, 1996). In other words, language B would have to be unlearned to some extent. These ideas were held because language was considered to be a set of verbal behaviours which are acquired through being conditioned to correct habits in that language through reinforcement. Good habits persist because they are accepted and rewarded but bad ones are punished and thus become extinctic. Although these beliefs were used in relation to language teaching, they were rarely applied to the teaching of literacy. Was it necessary to unlearn a literacy skill acquired in a language in order to learn another? Definitely no. In this paper, we looked at the similarities and differences between English language and selected Zambian languages with their implication on the teaching literacy and language among early graders.

English and Zambian languages have multiple similarities and differences that may have implications on the teaching of literacy and language among early grade classes of Zambia. Krzeszowski (1990) noted that studies that compare two languages or groups of languages with a view of identifying their structural similarities and differences fall in the realm of contrastive linguistics vis-a-vis contrastive analysis. The focus of contrastive linguistics is on noting and describing the resemblances and variances in languages rather than grouping them genetically or typologically. Furthermore, "when two or more languages are compared, it is possible to focus either on similarities and/or on differences" (P. 9). Keshavarz (2012, p. 6) reported that "there are two main types of contrastive studies: theoretical and applied".

Theoretical contrastive studies give an exhaustive account of the differences and similarities between two or more languages, providing an adequate model for their comparison, and determine how and which elements are comparable, thus defining such notions as congruence, equivalence, correspondence, etc. Theoretical contrastive studies are language independent. They do not investigate how a given category present in language A is presented in language B. Instead, they look for the realization of a universal category X in both A and B . Thus, theoretical contrastive linguistics does not have a direction from A to B or vice-versa, but as illustrated in Figure I below, the direction is from X to A and B .


Source: Fisiak (1985, P. 2)
Applied contrastive studies also known as pedagogical contrastive analysis are studies that relate to the teaching and learning of second and foreign languages. Keshavarz (2012, p. 6) observed that "A major task of applied contrastive studies is explaining why some features of the target language are more difficult to acquire than others... applied contrastive analysis is part of applied linguistics".

Since it was first introduced by Robert Lado in the 1950's, Contrastive Analysis (CA) has been concerned with practical problems, for instance, (a) to avoid interference errors in foreign-language learning, as advocated by the proponents of CA such as Di Pietro (1971), (b) to assist interlingual (between two languages) transfer in the process of translating texts from one language into another, as demonstrated by Hatim (1996), and (c) to find lexical equivalents in the process of compiling bilingual dictionaries, as illustrated by Heltai (1988) and Hartmann (2007), (Keshavarz, 2012, P. 6).

Di Pietro (1971) noted that contrastive linguistics, from its inception, has been linked to pedagogy or aspects of applied linguistics and contrastive analysis covering topics such as error analysis and mother tongue interference in second and foreign language learning. Furthermore, Contrastive Analysis involved describing comparable features across the two languages, identifying the differences and then, predicting what errors learners would make. It served two major purposes: first it provided an explanation for why learners make errors, and secondly it served as a source of information for identifying which structural areas of the target language teachers needed to teach (i.e., those where negative transfer was likely) (Ellis \& Barkhuizen, 2005, p.52).

This paper is a segment of applied contrastive analysis of English and Zambian languages with a view of identifying their similarities and differences at the level of linguistic analysis. Keshavarz (2012, p. 13) contended that "contrastive descriptions can be made at every level of linguistic structure including phonological, morphological, syntactic, texico-semantic, as well as pragmatic". In other words, contrastive descriptions of English and Zambian languages were made at various levels of linguistic analysis that take the form of "speech sounds (phonology), written symbols (orthography), word-formation (morphology), word meaning (lexicology), collocation
(phraseology), sentence structure (syntax) and complete discourse (textology) as the parameters for analysis.

## Framing of the study

A contrastive analysis of English as a global language (Imam, 2005) and a wide range of Zambian Bantu languages (Chanda \& Mkandawire, 2013) details specific aspects of interest to the researchers that have significant implication to the teaching of literacy and language in early grade classes of Zambia. English language is taught as a second language, foreign language, and first language in most countries of the world as it is considered a language of trade, national building and international communication (Imam, 2005). In Zambia, English language has played a critical role in education and public domain. It begun to be used as medium of instruction in schools during the missionary era, and this continued in the colonial, and after independence (Linehan, 2004). English language plays a critical role in Zambia as it is a national language used in education, and for official businesses in public and private sectors (Manchishi, 2004).

Zambia has a long history of multilingualism due to the presence of multiple languages in the country (Tambulukani, 2001; Simwinga, 2014; Banda \& Jimaima, 2017; Iversen \& Mkandawire, 2020). "The exact number of languages is not known although many texts claim that Zambia has 73 languages or 73 languages and dialects. The figure 73, is probably due to a non-distinction between language and dialect using the criterion of mutual intelligibility. If this criterion was used, the number of Zambian languages would probably be about 20 or 30 only" (Chanda \& Mkandawire, 2013, p. viii). Soon after colonial administration was in effect, the state begun to elevate some Zambian languages in 1927 to the status of regional official (Simwinga, 2007; Manchishi, 2004; Linehan, 2004). Currently, there are seven regional official languages in Zambia (Bemba, Kaonde, Lozi, Lunda, Luvale, Nyanja, \& Tonga) used and prevalent in specific provinces of Zambia (Chibamba, 2020; Banda \& Simwinga, 2018). These regional languages are also used as media of instruction for early grade classes from grades 1 to 4 and English language takes over from Grade 5 up to colleges and universities (Ministry of Education, Science, Vocational Training and Early Education, 2013; 2014). The policy of teaching initial reading instruction in indigenous Zambian languages is translated through the lenses of the seven indigenous languages. However, this study taps into the vast linguistic reservoir of Zambia when comparing aspects of Zambian languages and English using the contrastive analysis framing.

Contrastive analysis framing is an area of comparative linguistics which is concerned with the comparison of two or more languages to determine the differences or similarities between them, either for theoretical purposes or factors related to applied linguistics for language instruction (Tajareh, 2015). "Contrastive Analysis (CA) is the comparison of the linguistic system of two or more languages, and it is based on the main difficulties in learning a new language that is caused by interference from the first language. Teaching materials can make use of contrastive analysis and the difficulties between the two languages can predict by CA" (Tajareh, 2015, p. 1106). Furthermore, Lado (1957) stated that contrastive analysis addresses the learning of first language
(L1) in relation to the learning of second language (L2). Traditionally, classic contrastive linguistics from the time of Lado (1957) is centred on three basic assumptions.
(1) the main difficulties in learning or using a new language are caused by interference from the first language; (2) these difficulties can be predicted by contrastive analysis (CA), which helps second language (L2) learners or users to perceive or recognize the differences between their first language (L1) and the new language they are learning or using; and (3) teaching materials can benefit from contrastive analysis, which provides insight as to how the effects of L1 interference can be reduced (Ke, 2019, p. 25).

These assumptions have been criticised in subsequent studies in later years by various scholars at different levels. Abbas (1995; Macdonald, 2011) reported that one basic weakness for which contrastive analysis is criticised is language interference as a type of error. Al-sibai (2004, p. 2) "many researchers feel that such emphasis has distorted contrastive analysis's ability to correctly predict a host of other imported errors which second language learners are prone to commit." Wardhaugh (1970, p.124) stated that the hypothesis was classified into strong and weak versions:

The strong version predicted that the majority of L2 errors were due to negative transfer. The weak version, on the other hand, merely explained errors after they were made. Wardhaugh goes on to point out that, "Contrastive Analysis Hypothesis (CAH) was also criticized on the ground that it could not take into account relative difficulty among L2 segments that shared the property of being different from the L1 (Al-sibai, 2004, p. 4).

The current study also used Error Analysis framing as a subsidiary of contrastive analysis. In error analysis, alternative explanations are provided for second language learning difficulties that learners may encounter in the process of language learning.

Error analysis is the process carried out to observe, analyze, and classify the deviations of the rules of the second language and then to reveal the systems operated by learners" (Brown, 1980, p.166; Touchie, 1986). This perspective is similar to that of Crystal (1987, p. 112) who has pointed out that "error analysis is a technique for identifying, classifying and systematically interpreting the unacceptable forms produced by someone learning a foreign language, using any of the principles and procedures provided by linguists." In stressing the importance of Error Analysis (EA), Corder (1967, p. 125) points out that "the study of errors is part of the investigation of the process of language learning. In this respect, it resembles methodologically the study of the acquisition of the linguistic development of a learner and may give us indications as to the learning process." Error analysis provides information on pupils' errors to teachers who in turn use it to correct the pupils' written work, hence improving the effectiveness of their teaching. Richards et al. (1996, p. 127)
state that "error analysis has been conducted to identify strategies which learners use in language learning to track the causes of learners errors, obtain information on common difficulties in language learning or on how to prepare teaching materials." Similarly, Michaelides (1990, p. 30) states that "the systematic analysis of student's errors can be of great value to all those concerned, i.e., teachers, students and the researchers. For teachers, it can offer a clear and reliable picture of his students' knowledge of the target language." According to Corder (1974) there are two objectives or EA: theoretical and applied. The theoretical objective explains what and how a learner learns when he/she studies a second language. The applied objective serves to enable the learner to learn more efficiently by exploiting the knowledge of his/her dialect for pedagogical purposes. However, the study being reported is guided by the theoretical part because the applied is beyond the scope of the present study.

## Research Objective

The study sought to address the following objectives:
(i) To establish the similarities and differences between English and selected Zambian languages
(ii) To ascertain the implication of the similarities and differences in (i) to the teaching of literacy and language among early graders in primary schools

## MATERIAL AND METHOD

The study used document analysis (Nkhata et al., 2020) and author introspection (Schultz \& Schultz, 2012; Perner et al., 2007) as means through which data was collected.

## Use of Document Analysis and Author Introspection to collect Data

Research data was collected from existing literature through document analysis where publications in English and Zambian Languages were collected from international databases such Science Direct, JSTOR, Cambridge Journals Online, and Palgrave Macmillan Journals. Searches for literature were extended to Google Scholar, Institutional Repository, and Physical Library at the University of Zambia. Search terms and parameters included words such as *English vs Zambian languages, *contrastive analysis, *contrastive linguistics, and *comparing languages. Authors' introspections were also used where the experiences of authors that comprised linguists, teachers, teacher educators and curriculum specialists were used as sources for data.

Document analysis (documentarism) is a qualitative research method of data collection and a theory in which documents related to a study of interest to the researchers are collected, analyzed and interpreted to aid in the design of the study (Nkhata et al., 2020; Mkandawire, 2019). Bowen (2009, p. 27) reported that "document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic." This study analyzed literature through content analysis where researchers read multiple documents in search of parameters for comparison. Each document found was read by at least two co-authors
for quality analysis in search of parameters for comparison. In the end, authors had multiple write ups with diverse parameters for comparison. The authors resolved to settle for selected parameters as described in section 2.2. The data collected on those parameters were compared and contrasted with author introspection. O'Leary (2014) observed that there are three types of documents considered in qualitative research. These are: public records, personal documents, and physical evidence. This study analysed public documents, and private publications related English and Zambian languages.

Author introspection is a methodology that examines one's own conscious knowledge, thoughts, skills, feelings, and values (Schultz \& Schultz, 2012; Perner et al., 2007). The Encyclopedia of Consciousness (2021) noted that Introspection generally provides a privileged access to one's own mental states that is not mediated by other sources of knowledge, so that individual experience of the mind is unique and used as source of data. The data collected was analysed thematically where similar themes were grouped together for easy reference as parameters and aspects for comparison.

## Parameters for Comparison

The study focused on comparing aspects of micro-contrastive and macro-contrastive linguistics aspects (Ke, 2019) at levels of linguistic analysis that were present or absent in either or both English and selected Zambian Languages as described by Keshavarz (2012). The parameters for comparison in this study are similar to those raised by (Ke, 2019, p.8) that included written symbols, graphemes and phonemes (orthography, phonetics, speech sounds, phonology), wordformation (morphology), syllable structure, non-cognates, word meaning (lexicology and semantics), aspects of structure or grammar (syntax), and contextual language use (pragmatics). Aspects of the paraments outlined in this section guide the multiple contrastive analysis in this article.

## FINDINGS AND DISCUSSION

The findings are presented in themes addressing both aspects of the research questions. These themes may raise a similarity or difference and its narrative discusses both parts of the research questions. Towards the end of each theme, there is a statement or two about the implication each theme may have to the teaching of literacy in Zambian schools.

## The Alphabetic Writing System

English and Zambian languages use the same alphabetic writing system or segmental writing system just like Spanish, Greek, Latin, Armenian, Cyrillic, Mongolian, Russian, and Georgian. Mwansa (2017, p. 116) observed that "Alphabetic writing systems are based on what is called the alphabetic principle which is the understanding that phonemes (sounds) should have a one-to-one correspondence with graphemes (letters)". In the alphabetic writing system, a language has symbols called segmental phonemes that include vowels and consonants and these
symbols have specific sounds assigned to them. In Zambia, for instance, Zambian languages have five vowel phonemes $/ \mathrm{a} /$, /e/, $/ \mathrm{i} /$, /o/, /u/, corresponding perfectly to the five graphemes in English language. The five vowels which correspond to the front close vowel ' $i$ ', the front-mid vowel 'e', the central open vowel 'a', the back-mid vowel 'o' and the back close vowel 'u' (Mwansa,2017). Although Zambian languages and English share the same vowel graphemes, there are some variations in pronouncing them and how they are realised in varying contexts. For example, the phoneme $/ \mathrm{u} /$ in the word 'upper' is sounded different from $/ \mathrm{u} /$ in the word 'unity' and both are different in the words 'cute' or 'put'. In Zambian languages, the phoneme / $\mathrm{u} / \mathrm{has}$ the same sound across languages as in 'uta' (Tumbuka) spear, 'uka' (Nyanja) wake up, 'nvubu' (Kaonde) hippo and these are similar to English words 'cute', 'futile' and 'put'. Similarly, the phonemes /u/ and $/ \mathrm{a} /$ are the same in words but, and bat, but different in the words put, and pat. Such inconsistencies are not found in Zambian languages. As a rule, the five vowels in Zambian languages make one sound in all the words in which they are used.

English and Zambian languages equally share consonant graphemes [a, b, c, ch, d, e, f, g, h, I, j, k, l, m, n, ng, o, p, q (kw), r, s, sh, t, th, u, v, w, w, y, z, zh] (Chanda and Mkandawire, 2013; Kula \& Marten, 2010; MoE, 1977). In Zambian languages, the number of consonants vary depending on the language. As a point of departure, letters [ q and x ] do not exist in all Zambian languages. However, the sound of the letter [q] is realised as $/ \mathrm{kw} / \mathrm{in}$ most Zambian languages as in 'queen' (English) versus kwisa (Bemba). Similarly, some phonemes in some Zambian languages such as $/ \hat{w} /$ does not exist in English. Furthermore, there are consonant graphemes that are not found in selected Zambian languages. These graphemes include $[\mathrm{v}],[\mathrm{r}]$, and $[\mathrm{z}]$. These are often replaced by [b], [f], [l], and [s], respectively. This is particularly true for loan words from English. Additional graphemes used in Zambian languages include digraphs such as [sh], [ch], [dz], [ny], [ ng ], [zh], [th], [ts], [pf], and [ng']. The phoneme of some of these digraphs are used in the same way as English. For instance, 'shita' buy in (Bemba) is used in the same way as 'sheep' in English.

The implication of these similarities to the teaching of literacy and language in schools is that when learners acquire the names or sounds of the letters and symbols in any of the Zambian languages, they will be able to transfer letter knowledge to other Zambian language or any alphabetic language with similar symbols such as English. In other words, when a child learns letter knowledge in English, they can easily transfer that knowledge to Zambian languages and vice versa with minor difficulties. The letter knowledge similarity serves as cognate available in both English and Zambian languages with the same names and sounds with exception of a few. This fosters the acquisition and learning of other languages through metalinguistic and metacognitive abilities by making comparison of structural frames such as letters, symbols, cognate words, non-cognates, and phrases from previously learnt languages to the target language (Baker \& Wright, 2017; Haukås, 2015; Kaani, 2014; De Angelis, 2011). This implies that some language skills learnt in English may directly be transferred to Zambian languages and vice versa. Therefore, when the teaching and learning processes focus on the alphabetic principle, reading skills would be facilitated in alphabetic languages.

The absence of certain letters in the alphabet of some Zambian languages imply that some learners in primary and secondary schools will have difficulties pronouncing words in English that contain those letters. For example, a learner that grew up in rural Western Province will have challenges pronouncing words with a letter [v] as in 'Livingstone'. The sound $/ \mathrm{v} /$ will be replaced by $/ \mathrm{b} /$ and the word will be read as /Libingstone/. This is because the letter [v], like other letters such as [Q] and $[\mathrm{X}]$ does not exist in Lozi language. Similarly, the letter [ h ] does not exist in isolation in Bemba but occur as a digraph in the phoneme $/ \mathrm{sh} /$. Therefore, learners will have difficulties reading a phrase such as [His house has holes in the roof]. Learners in Southern Province may equally have difficulties reading words with the letter [r] as it does not exist in Tonga. Most Zambian language have a problem in the use of [r] and [1] and learners will equally have a problem pronouncing words with such letters. This means that teachers need teach letters or sounds that are absent in children's first languages (L1) explicitly.

## Zambian Languages have Distinctive Vowel Length

Unlike English, vowel is distinctive in Zambian languages as they can alter the meaning of the word. In writing for example, long vowels are indicated by doubling the letters (Ministry of Education, 1977:3). It is worth to note that vowel length is found in most Zambian languages. The examples on vowel length are provided in Kaonde and Lunda.

## 1. Kaonde

(i) kubula
'to lack'
(ii) kubuula 'to tell'
(i) kupepela 'to become light'
(ii) kupepeela 'dry something over fire'

## 2. Lunda

In example 1, the vowel $/ \mathrm{u} /$ is the same, except for length. In 1(i) there is a short vowel $/ \mathrm{u} /$ and the word means 'to lack', whereas in 1(ii) the vowel is long and the word means 'to tell'. As observed above, vowel length influences the meaning of words in Zambian languages. In Luvale however, vowel length is not distinctive. At morpheme or word boundaries the process known as vowel coalescence may occur. This is the fusing of two different vowels into a single vowel. This happens when a low vowel /a/ is followed by a high vowel which may either be /u/ or /i/ (Hamman \& Kula, 2015). The outcome is either a long mid vowel /oo/ or /ee/ or a short mid vowel [e] as illustrated in Lunda and Lozi at word boundary.
3. Lunda

Ma-isu becomes meesu Ma-ino becomes meno 'teeth'

As can be observed in ' 3 and 4', 'ma-'is a nominal prefix for nouns in Class 5 whereas 'isu' and '-ino' are stems. When /a/ is followed by /i/ the two vowels are realised as one. Where the high vowel comes before the low vowel, then the high vowel becomes a glide.

The doubling of consonant letters for example [cc, bb, kk, and hh] in a language such as Tonga to show the difference between hard and sound sounds may be synonymous to vowel length as it is equally distinctive as it influence changes in word meanings by showing hard and soft sounds. The examples provided below are from the (Ministry of Education, 1977:4) in Tonga.

| Soft Sound |  |
| :--- | :--- |
| Kala | small intestine |
| Kubala | to read |
| Hihi | a big log of fire-wood |
| Cita | do something |
| Cisa | pain |

In languages like Tonga, doubling of consonant is as distinctive as vowel length in most Zambian languages. One can tell that kala and kkala are different and have different meanings. The doubling of consonants in Tonga are additional graphemes and may also be used to indicate, for example, differences between plosives and fricative allophones such as [bb] indicating a voiced bilabial plosive sound and [b] indicating a voiced bilabial fricative sound.

The implication of vowel length and doubling of consonants is that beginner readers need to be sensitised to the distinctiveness of length very early in their education. Early readers should be helped to understand the morphophonological processes that are responsible for changes in vowel length. There is a need to emphasise aspects like these in the pre-service training of teachers, so that they are empowered to correctly teach the spelling of words that contrast due to vowel length or doubling of consonants. Reading programmes should explicitly include the teaching of the distinction between short and long vowels and short and long consonants from the beginning of reading instruction (Mwansa, 2017).

### 3.3 English and Zambian Languages have shared aspects of Language Universals

Language universals (Linguistic universals) is associated with patterns that occurs systematically across most natural languages (Comrie, 1981). Aspects of linguistic universals common in English and Zambian languages include the presence or nouns, verbs, adverbs, adjectives, conjunctions, locatives, prepositions, interjections, some determiners, sentence patterns containing subjects and verbs, and the suppression of past, present and future events. As a point of departure, certain adjectives such as articles do not exist in Zambian languages. This implies that some structures may easily be transferred from Zambian languages to English and vice versa than others.

### 3.4 The syllable structure of English is different from that of Zambian Languages

Like most Bantu languages, Zambian languages have a consonant vowel (CV) syllable structure as in ' $\quad$ 'u' in, to a generally consonant vowel, consonant vowel (CVCV) syllable structure as in 'mama' mother. English on the other hand has diverse syllable structures that range from a simple CV as in the word 'no' to a complex CCCVCCC structure as in 'strength'. Despite this divergency, the CV syllable structure is common across alphabetic languages. Easterday (2019, p.4) noted that "One robust pattern in syllable structure typology is the crosslinguistic ubiquity of syllables of the shape CV: a single consonant followed by a vowel. Though it has been claimed that CV syllables are found in all languages, for a few languages it has been posited that this structure does not occur." English language also shares multiple transparent orthographies with Zambian languages
and these include the CV, CVCV, and the CVCVCV structures. This means that the onset and rhyme structure in English is way more complex than that of Zambian languages and that the coda does not exist in all Zambian languages (Marten \& Kula, 2007). In contrast to English that has both open and closed syllables, all Zambian languages end in open syllables..

The implication of these differences to the teaching of language and reading to early graders in Zambia is that learners may experience difficulties in reading words with a different syllable structure. For example, when a learner is used to a group of words with a CV structure in a Zambian language, they will have difficulties in reading words such as scrap, street and split in English with the CCCVC syllable structure. This may be a good starting point for instruction on the part of teachers. In terms of similarities, when learners realise that words in both English and Zambian languages have the same syllable structure, they will think that they are read the same way as though they were both transparent languages with phone-grapheme correspondence. Once they reach this level, learners will make errors in reading words in English language. For example, a child that is taught to read in a Zambian language will read an English word 'future' as /fu/-/tu/$/ \mathrm{re} /$ and the word 'change' will be read as /cha/-/nge/. Similarly, a child taught in English language would read words in Zambian languages wrongly. For instance, the word 'citeme' will be read as /cite/-/me/ and the word 'malinga' will be read as /mall/-/ling/-/e/. Teachers needs to guide learners at different levels so that they understand that languages are different and have different syllable structures.

### 3.4 Zambian languages are transparent while English language is opaque.

Zambian languages are said to be transparent because what is written is what is read and what is read is what is written. English language on the other hand has opaque orthography because one sound may have three different realisations in form or writing. For instance, the three words; cite, site, and sight have the same sound. Similarly, the other three words; graph, lough, and thief have the same sound. Such situations do not exist in Zambian languages. Therefore, Zambian languages have consistent grapheme phoneme correspondence, where one letter or groups of letters (grapheme) are equivalent to one sound (phoneme) while English have high inconsistencies between graphemes and phonemes. This is what Kaani (2014) and Chimuka (1977) meant when they reported that "the orthography of the Zambian languages has very consistent Grapheme Phoneme Correspondences with close to one letter-sound ratios". Similarly, in English language "there are more words than there are syllables, more syllables than there are rimes, more rimes than there are graphemes, and more graphemes than there are sounds" (Ziegler \& Goswami, 2005, p. 3), "each presenting varying degrees of availability, consistency, and granularity" (Nkhata et al., 2019, p. 101).

This imply that when it comes to the teaching of reading skill, children can easily learn to read in Zambian languages than in English. Nkhata et al., (2019) observed that:


#### Abstract

For pupils to manipulate spelling-to-sound mappings successfully, beginner readers have to overcome three challenges related to a) availability of the knowledge of the connections between orthographic units and phonological units prior to reading, b) degree of consistency in orthographic units with multiple pronunciations and phonological units with multiple spellings, and c) the increase in granularity of orthographic units required to access phonological systems has corresponding incremental effect on the number of units ( $p .101$ ).


Furthermore, the emphasis on sound first before exposing children to letter names should take precedence over names because that is how reading occurs in Zambian languages. If children begin reading instruction in English, both letter names and sounds (phonics) can be taught simultaneously.

### 3.5 Affixation in English and Zambian languages are used differently at times.

In the morphology and grammar of Zambian languages and English, prefixes and suffixes are added to stems, a process called affixation. Marchand (1969) noted that in linguistics, an affix is a morpheme that is attached to a stem to form a new word or word form. The author further noted that affixes can be derivational or inflectional. In linguistics, derivational morphology is the process of forming new words from existing ones usually by adding prefixes and suffixes as in unhappy, happiness and unhappiness, all derived from the existing word happy. Inflectional morphology deal with grammatical variants of the same word without changing its core meaning as in boys from boy, kicking from kick and determined from determine (Crystal, 1999). In Zambian languages, the nominal class system provides a comprehensive list of prefixes. For instance, the word Mu-nthu 'person' (Nyanja) has a nominal prefix 'mu-' indicating number (singular) and nthu a nominal stem. In the plural form, the nominal prefix ' $m u$ - changes to $a$-' indicating number (plural) and -nthu a nominal stem remains the same (Miti, 2006). This is a common trend across Zambian languages using the noun class system with variation in prefixes. Suffixes also exist in varying contexts in Zambian languages, for example, in causative form. For instance, sekesa 'make someone to laugh' from seka 'laugh'. While suffixes are used for inflection in English for example from singular nouns to plural, Zambian languages use prefixes from singular and plurals.

Teachers in early grade classes should understand the dynamics of forming plurals in English and how it is different from Zambian languages so that learners are guided informatively. Inflectional rules from singular to plural that involve suffixes and prefixes in English and Zambian languages differ respectively. English uses suffixes for example, girl inflect to girls. In Zambian languages such as Lozi, tipa 'knife' inflect to litipa 'knives' and komiki 'cup' inflect to likomoki 'cups'. Conversely, teachers should understand that prefixes in English are not usually used to reflect number (singular and plural) like they do in Zambian languages.

### 3.6 The morphological structure of nouns in Zambian languages and English is different.

In Zambian languages, the morphology of nouns (morphological structure of nouns) are of two types; (i) Augment + Prefix + Stem as in umuntu 'person' in Bemba, analysed as u-mu-ntu. The second is (ii) Prefix + stem as in munthu 'person' in Nyanja, analysed as mu-nthu (Njobvu, 2020). The first structure is found in exceptionally few languages including Bemba and rare cases of Tonga. The second structure taking prefixes and stem is the most common across language in Zambia and most bantu languages. It is important to note that some languages like Tonga seem to have two types, one with PREFIX + STEM in general and AUGMENT + PREFIX + STEM when emphasized. For instance, (1) (without augment) mu-ntu (muntu) 'person'; ba-ntu (bantu) 'persons'; (2) (with augment) i-mu-ntu (imuntu) 'the/a person'; i-ba-ntu (ibantu) 'people' used for emphasis. These structures do not exist in English language. Nouns in English are many times treated as bases that may inflect depending on the context. Early grade teachers will benefit from this narrative by understanding the nature and structure of nouns in Zambian languages and English.

### 3.7 Graphemes and Consonant Clusters

English language has exceptionally complex graphemes and consonant clusters than Zambian languages. For example, Figure 2 shows one to four letter graphemes that exist in English language. It is rare, if not impossible, to find a quadgraph in Zambian languages.

Grapheme is the big umbrella term, there are many different types of graphemes.


Source: https://www.youtube.com/watch?v=plZjSxUazvY
A grapheme is a letter or group of letters and how they are sounded (phoneme) while a phoneme is the smallest unit of sound in a language (Honig, Diamond \& Gutlohn, 2018). For example, /k/ is a phoneme or sound and this sound may be realised in different ways; c, k, ck, ch, and qu. The five different ways of writing the sound $/ \mathrm{k} /$ are graphemes. In other words, $[\mathrm{k}]$ is a grapheme of
the phoneme $/ \mathrm{k} /$, [c] is a grapheme of the phoneme $/ \mathrm{k} /$, [ck] is a grapheme of the sound $/ \mathrm{k} /$, [ch] and [qu] are graphemes of $/ \mathrm{k} /$. This confusion of having one sound with five different ways of writing the same sound is only in English and does not exist in Zambian languages as explained earlier. Most exceptional and complex consonant clusters such as /-ght/, /str-/, /spl-/, and /skw/ do not exist in Zambian languages. It is important to note that there are some consonant clusters in Zambian languages that do not exist in English. For instance, clusters such as [zh], [kh], [kw], [nkhw] do not exist in English. In contrast with English, Zambian languages do have diphthongs (Hamann \& Kula, 2015). A diphthong is a vowel sound which involves the movement of the tongue from one position to another within the same syllable. It is basically a sequence of two different vowels as indicated by 'ai' in the example Faith [feIӨ]. The absence of diphthongs in Zambian languages creates a challenge for learners of English. There is a tendency to pronounce a diphthong as a monothong without a glide from the first vowel to the second one in the word. For example, the word like 'faith', will be pronounced as [feӨ]. Vowels are syllabic in Zambian languages. Therefore, a sequence of two different vowels are treated as different syllables for example:

Bemba: aenda 'she/he has walked'
Nyanja: aitana 'he/she is calling'
English has a mid-central vowel known as a shwa sound represented by the phonetic symbol /a/ as in $\boldsymbol{a} g o$. In writing, the shwa sound is represented by the grapheme $<\mathrm{a}>$. Zambian languages do not have this vowel. This implies that learners are likely to read $/ \mathrm{\rho} /$ where it appears at the beginning of the word in English as ' $a$ '.

The implication of these dynamics imply that the early grade teacher needs to understand that English language has more digraphs, trigraphs, and quadgraphs than Zambian languages. This has made the spelling system of English inconsistent, for instance the digraph [ch] in words like church also appears as part of a trigraph in catch, but not in rich. Again, this situation makes English a more difficult language to use to teach reading to early grade classes than Zambian languages. Teachers should also understand that the position of consonant clusters in English can be found in both initial and final syllable positions, while in the Zambian languages they are more common in initial syllable positions and exceptionally fewer in last syllable positions. This means that the teachers may find it challenging to help the learners understand the inconsistencies between Zambian languages and English, into which the learners in later grades are transitioned (Mwansa, 2017).

### 3.8 Stress and Tone

Zambian languages are tonal languages while English is a stress and tonal language. In Zambian languages, tone carries a lexical and grammatical function. For instance, in Nyanja, the word mtengo has two meanings 'tree' or 'price' distinguished by tone. In English on the other hand, the word 'produce' may be used as a verb or noun depending on the position of the stressed
syllable (Spitulnik, 1987). In this regard, tone is highly distinctive in almost all the languages of Zambia. Whereas stress is distinctive in English at both word and utterance level, it does not exist in most Zambian languages. What stress is supposed to achieve in English at utterance level, is achieved using a pronoun and repeating it as a pronominal in Zambia Languages. Thus, the examples in column A are less emphatic than those in column B below.


|  | Columin B. |
| :---: | :---: |
| Bemba: | Ine nshifivana bupuba 'Me, I do not like stupidity' |
| Tonga: | Mebo nstyandi buffibafiuba 'Me, I do not like stupidity' |
| Nyanja: | Ine sindifiuna kupusa 'Me, I do not like stupidity' |
| Tumbuka: | Sne ucindele nkhukknmba yayl 'Me, I do not like stupidity' |
| Lozi: | Na anilati bukuba 'Me.1do no |

Examples in column B above does not only emphasise the speaker's displeasure at the addressee's stupidity, it also implies comparison and contrast. In column B, the speaker is actually saying, "If there are people who tolerate your stupidity, I do not. In some Zambian languages such as Tumbuka and Lozi, there is also an alternative way to say the same without repeating or using a pronoun. For instance, Tumbuka: Ucindele pano cha (Chala); Lozi: Bukuba kwanu nya 'stupidity here no'. In English, that effect is achieved by moving stress to the word being contrasted, in this case, the subject pronoun. For example, in a sentence, ['I do not like stupidity], with a stress on I, means that others may tolerate it. However, when stress is on stupidity, as in, [I do not like 'stupidity], may create an impression that I can tolerate other vices other than stupidity.

In English language, it is not just stress that is distinctive at utterance level. Tone is too. Consider example (a) and (b) below.
(a). Yona called to give me those (Declarative statement.) This has a falling tone (b). Yona called to give me those (Showing surprise).

While sentence (a) only declares a fact, (b) expresses surprise. Sentence (b) could mean "He knows I do not want them" or "surely those are too ugly for me". At word level, stress is distinctive in English but absent in most Zambian languages. Thus, the difference in meaning in the words below has been brought about by a change in stress. For instance, the word 'Import (That which is bought from outside a country) is distinguished by stress from Im'port (To buy from outside a country), similarly, 'sub.ject (That which is learnt or talked about) is different from Sub'ject (To expose to some state of being.) In most Zambian Languages, that change in meaning at word level can be achieved by tone as exemplified earlier.

### 3.9 Cognates and Non-Cognates in English and Zambian Languages

Cognates are pairs of words found in two different languages, written the same way or very similar and have the same meaning (Honig, Diamond, \& Gutlohn, 2018). There are no known cognates in English and Zambian languages at word level with exception of shared letters of the alphabet as explained in 3.1, some borrowed words and nouns. However, non-cognates or false friends exist in several Zambian languages. Non-cognates are words that are written the same in

English and Zambian languages but have different meanings in respective languages. Noncognates may be misleading to novice readers of English and selected Zambian languages. Therefore, early grade teachers need to account for such words and guide learners accordingly.

Table 1 shows a list of non-cognate words in English and selected Zambian languages.

| English | Selected Zambian Languages |
| :--- | :--- |
| Make | Make - Nyanja 'mother of...' possessive. |
| Cake | Cake - Nyanja 'his/hers' possessive. |
| Cite | Cite - Nyanja ‘cite' substitute for a name. |
| Wise | Wise - Bemba 'you should come'. Verb. |
| Wine | Wine - Bemba 'the one'. Noun. |
| Nine | Nine - Bemba 'it is me'. Pronoun. |
| Line | Line - Bemba 'now'. Adverb. |
| Like | Like - Lozi 'dirty water used for washing fishing with curls, <br> intestine, and others.' |
| Mate | Mate - Lozi/Tonga/Bemba 'saliva'. |
| Alike | Alike - Tonga 'alone'. |
| One | One - Tonga 'four'. |
| Change | Change - Tonga 'tie something/agreement' |

The implication of having non-cognates for the teaching of literacy and language among early graders is that, when learners realise that words in both English and a Zambian language have the same form (written the same way), they will think that they are read the same way and this may be the source of error in pronouncing such similar words. Therefore, teachers should guide learners and explicitly teach them.

## CONCLUSION

Zambian languages differ from English on several fronts; English has an opaque orthography in comparison to transparent Zambian languages. Zambian languages are generally tonal while English uses stress. The syllable structure and some grammar rules differ in English and Zambian languages. Despite these differences, similarities exist that include shared letters of the alphabet, similar sounds on some letters, some syllable structures are the same, and that some linguistic universals are the same. Teachers in early grade classes should have a high level of linguistic competence in both English and Zambian languages if they are to teach reading effectively in the two languages. When literacy teachers are adequately equipped, they will apply appropriate Mother Tongue-Based Multilingual Education accommodations to support their learners.

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