

The Segmental Phonemes of English and Edo: A Contrastive Analysis

Ikhimwin, Gladys Ameze, PhD

Abstract

Phonemes are perceptually distinct units of functional sounds in a particular language. However, every language has its own phonemic units that form the sound system of the language. This paper seeks to compare and contrast the segmental phonemes of English and Edo with the sole aim of predicting the learning difficulties among the ESL learners. Edo is the speech form spoken in seven local government areas of Edo state, Nigeria. It is the major language spoken in the state and it belongs to the minority group. Data for this work are drawn from already existing documents in the languages under study as their segmental phonemes already exist in the literature. The theoretical framework employed is the contrastive analysis approach put forward by Lado (1957). This approach is employed in investigating and describing language systems by comparing them with others so as to identify areas of difficulties and proffer solutions to ease the problems created by the differences. This paper therefore reveals that the vowels of English are complex units and pose great problems for the ESL learner. Suggestions are given to help reduce such difficulties in the learning of English.

Keywords: contrast, segment, phoneme, English, Edo

Introduction

Phonemes are the distinctive units of a language. A phoneme is the smallest unit of sound that distinguishes one word from another. According to Jones (1967), phonemes are seen as “a family of sounds in a given language which are related in character and are used in such a way that no member ever occurs in a word in the same phonetic context as any other member.”

This paper however carries out a contrastive analysis on the segmental phonemes of English and Edo. Connor (1996) defines contrastive analysis as the systematic study of a pair of languages with a view to identifying their structural differences and similarities. This paper hinges on Robert Lado’s theory of contrastive analysis (1957). Lado makes CA explicit by stating that one’s first language (L1) plays a very important role in second-language acquisition (SLA). As stated in Ellis (1994:306):

... the student who comes into contact with a foreign language will find some features of it quite easy and others extremely difficult. Those elements that are similar to his native language will be simple for him and those elements that are different will be difficult.

The basic aim of employing this theory is to ascertain the areas of difficulty

that the Edo learners of English may encounter during their learning process. Upon language learners' realization of these aspects, they will be able to adopt a better approach to learning rather than the rote learning approach.

Contrastive analysis theory can be employed in various linguistic areas such as phonology, morphology, historical linguistics, etc. In the area of phonology, Selinker (1992) states the three points which Lado suggests in comparing each phoneme as:

1. Does the L1 have a phonetically similar phoneme?
2. Are the variants (all allophones) of the phonemes similar in both languages?
3. Are the phonemes and their variants similarly distributed?

These points therefore serve as our guiding principles in carrying out this work. Since the phonology of the languages under focus has been examined in the literature, data for the study are gathered from already existing works on the phonology of English and Edo.

The Study Area

This paper examines the segmental phonemes of two distinct languages: English and Usen. English, a West Germanic language of the Indo-European language family, originated in England and is widely spoken worldwide, widely spoken in all six continents of the world by over 350 million people (*Encyclopedia Britannica*, 2002). Areas where the English is spoken as L1 include the United States, United Kingdom, Canada, Australia, Ireland and New Zealand. Apart from these countries, English is also employed as an official language in some other countries in Africa (Nigeria, South Africa, Ghana, etc.) and Asia (India, Philippines, Pakistan). As a major language in the world, it has many regional dialects. English is learned around the world by children in school as a foreign language. The influence of the language has spread all over the world as a result of the American pop culture, music, advertising, TV shows and movies. This paper adopts the Standard English, commonly referred to as British English. This is due to the fact that it is the official language of Nigeria and is also the language being taught and used for teaching at every educational level nationwide.

The second language examined in this paper is the Edo language and it is the same language Wescott (1962) refers to as "Bini." It is generally homogenous, characterized by the absence of dialectal variations due to highly centralized nature of the sociopolitical structure of the ancient Bini Kingdom. In Greenberg's (1963) and Williamson's (1986) classification of languages, Edo is classified as a member of the subgroup of the Niger-Congo Phylum. It is one of the widely spoken languages in Nigeria (Omozuwa 2010). In Elugbe's classification, Edo is classified as a member of the proto-North-Central Edoid.

Although there are many versions to the origin of the Edo people, Egharevba (1968:17) asserts that the Edo people migrated from Egypt and settled at Ile-Ife, finally occupying the heartland of the old Benin kingdom. The geographical location of the Edo speaking people is the southern part of Edo state, Nigeria.

Omoregbe (2012:13) asserts that Edo is a generic name given to the group of people who have a common ancestry and language. The term “Edo” refers to the language, the state and its speakers. It is spoken in seven speech communities in Edo state: Ovia Southwest, Ovia Northeast, Egor, Oredo, Ikpoba Okha, Uhunmwode and Orhionmwon. Agheyisi (1982: v) states that these speech communities constitute the core of what used to be the “old Bini Kingdom. The Edo language is a core member of a larger group of genetically related language and dialect clusters usually referred to as the “Edoid group of languages.” This group of genetically related languages is what some writers refer to as the “Edo speaking people” (Melzian 1937: vii; Wescott 1962:182). Varieties of the Edo language are also spoken in some other speech communities in Edo which, according to Omoregbe (2012), include: Oza Nogogo, Oza Aibiokunla, Oza Nisi, Odiguetue, Errua, Eho, Ikpe, Urhonigbe, among others. These varieties however show some differences in pronunciation and spelling although they are mutually intelligible.

Study Objectives

The major objective of this paper is to identify the similarities and differences in the segmental phonemes of English and Edo. The impetus therefore is to carefully and systematically describe, compare and contrast the phonemes of English and Edo with the intention of tracing the difficulties encountered in the learning of English by the Edo native speaker. The study also attempts to proffer solutions to reduce the difficulties encountered by the ESL learners.

The sound pattern of English and Edo

Every human language has its own sound system as well as sound pattern. According to Okolo and Ezikeojiaku (1999:103), “Although all languages share certain basic properties, it is highly unlikely that any two languages will have exactly the same sound pattern.” Okolo also identify three ways by which sound patterns may differ:

- i. The sound inventories may be different.
- ii. The sounds may occur in different order in building words.
- iii. The rules or processes that affect sounds may differ.

Here, attempt is made at examining the similarities and differences in the sound system of English and Edo. Every language sound system is made up of segmental and suprasegmental units. In this paper, we our focus is on the segmental sounds of the languages examined. English has 44 sounds, while Edo has

32. The segmental units of any language are categorized into two basic classes: consonants and vowels, the two units which this paper seeks to examine.

The consonant sound system of English and Edo

The consonant phonemes of English are 24 in number. Of these, three are nasals. The sounds and their distribution are presented in the table below:

Table 1: The consonant sounds in English

Sound	Letter	Words where they appear
p	p	pair, people, cup
b	b	bad, baby, mob
t	t	talk, little, feet
d	d	dark, fade, head
k	c	cal, baker, look
g	g	goat, figure, dog
f	f	fill, thief, life
v	v	very, above
ə	th	thin, both
ð	th	this, father,
s	s	saw, house
z	z	zap, dazzle, goes
ʃ	sh	shape, shoulder, push
ʒ	su/ge	pleasure, treasure, beige
h	h	her, ahead, he
tʃ	ch	cherry, match
dʒ	j	judge, john,
m	m	man, manmade, team
n	n	nail, angel, tan
ŋ	ng	ring, singer, english
l	l	let, leaf, tall
r	r	right, around, scary
w	w	wet, away arrow
j	y	you, yes, soya

The phonemic consonants of English are hereby presented in the phonemic chart below:

	Bilabial	Labio-dental	Alveolar	Alveo-palatal	Palatal	Velar	Labial velar	Dental	Glottal
Stop	p b		t d			k g			ʔ

	Bilabial	Labio-dental	Alveolar	Alveo-palatal	Palatal	Velar	Labial velar	Dental	Glottal
Fricative		f v	s z	ʃ ʒ				θ ð	h
Affricate				tʃ dʒ					
Trill			r (ɹ)						
Lateral			l						
Nasal	m		n			ŋ			
Ap-prox- i-mant					j		w		

Fig. 1: Phonemic chart of English consonants

For Edo, we identify 27 consonants. These sounds do not occur at the word-final position in the language but they may be found at word-initial or -medial position of lexical items in the language. Edo is an open syllable structure, language unlike English which operates a closed syllable structure type. The consonant sound system of Edo is a simple one as each sound is represented by a single letter of the language’s alphabet. These sounds are presented in the table below:

Table 2: The consonant sounds of Edo

Sound	Letter	Words where they Appear
p	p	piɛn, (press)
b	b	baba (father)
β	vb	vbe(at) evbare (food)
t	t	ta (say),
d	d	da (drink), odo (mortar)
k	k	ka (dress), iku (rubbish)
g	g	ga (worship), igan (feather)
kɸ	kɸ	kpe (wash), okpa (one)
gɸ	gɸ	gbe (dance), ugbo (farm)
f	f	fi (throw), ofen (rat).
v	v	vaan (break), ivie (bead)
s	s	sa (fetch), osa (god)
z	z	ze (choose), izɛ (rice)
x	kh	kha (say), okha (name of a village)

Sound	Letter	Words where they Appear
ɣ	gh	gha (worship), igho (money)
h	h	hoo (know), eha (three)
l	l	le (cook), ulẹ (race)
m	m	ma (match) ema (pounded yam)
ɱ	mw	mwa (measure), ɔmwa (person)
n	n	na (narrate), ɔna (this)
ŋ ^w	nw	nwọ (drink), onwọ (honey)
ɲ	ny	nya (own), inya (yam)
r	r	re (eat), ore (outside)
r	rh	rhie (take), erha (father)
r	rr	rre (come), irro (proverb)
w	w	wu (die), ewa (mat)
j	y	yo (go), iye (mother)

Edo consonants are represented in the chart below:

	Bilabial	Labiodental	Alveolar	Alveopalatal	Palatal	Velar	Labial velar	Glottal
Stop	p b		t d			k g	kp gb	
Fricative	b	f v	s z			x ɣ		h
Flap			ɾ					
Trill			ʀ r					
Lateral			l					
Nasal	m	ɱ	n		ɲ		ŋ ^w	
Approximant					j		w	

Fig. 2: Phonemic chart of Edo consonants

The consonants of English and Edo are examined under six major classes based on their manner of articulation:

Plosives: The plosives in English are seven in number while Edo has eight (8) plosives. All the plosives in English are present in Edo except / ? /, while the plosives / kp gb / in Edo are not evident in English. Based on their distribution, English plosives are oftentimes silent without being pronounced as employed

in the words “cab,” “keep,” “tip,” “dead” and “pig.” For Edo, all the plosives exhibit a loud characteristic as they are usually pronounced aloud in all positions where they occur. The / ʔ / phoneme is the only plosive that will pose a problem to the Edo ESL learner since this sound is not part of their sound system.

Fricatives: The fricatives common to both languages are / f v s z h /. While / ʒ ʃ ʝ ʧ / are absent in Edo, / β x ɣ / are not present in English. For the ESL learner, focus will be more on learning the sounds / ʒ ʃ ʝ ʧ / since such can create problems for the learners. In Edo however, the sounds / ʝ ʧ / are replaced with the sounds / t d / respectively. Also observed with the fricatives in the languages is the sibilant / s /. In English, / s / can become voiced / z / when it occurs immediately after a voiced sound as in “pegs,” “dogs,” “shoes.” For the sounds / ʒ ʃ /, they are replaced with the sounds / s / respectively. / h / in both languages is never found at word final position.

Affricates: There are no affricates in Edo. English has two affricates which are / tʃ ɟ /. These sounds are not restricted in their occurrence in a word as they can occur at any position in a word. While / tʃ / is represented by the letters “ch,” / ɟ / is represented by the letter / j /. For the Edo ESL learners both sounds are pronounced as / j / which is represented with the letter “y.” Such is a problem for the ESL learners.

Laterals: The only lateral evident in both languages is / l /. However, the distribution of the sound can alter its feature and pronunciation in English. According to Malah and Rashid (2015), “In English when / l / occurs before a vowel as in “look,” “live” or “value,” it is clear [l]; and when it occurs after a vowel as in “kneel,” “full” or “skill,” or before another consonant as in “feels and deals,” it is dark [ɫ]. The / l / is devoiced after / p / or / k / as in “please,” “people,” “clean” and “close.” In Edo, / l / is voiced at all positions it occurs in and it is usually pronounced aloud.

Nasals: There are only three nasal sounds in English / m n ŋ /. The nasals / m n / are common to both languages. However, the English nasals are spelt differently as mm, mn, n, nn and ng respectively. For Edo, there are five nasal sounds: / m n ŋ ŋ^w ŋ / and each sound is being represented by a letter of the language’s alphabet: m, n, mw, nw and ny respectively. In Edo, all nasals are voiced. Similar to Edo the nasals in English are voiced, but when the nasals / m n / co-occur immediately after the sibilant “s,” they become devoiced as in the words “smell,” “smooth,” “smith,” “snow” and “snatch.” There are no syllabic nasals in Edo.

Trills: Trills are consonantal sounds produced by vibrations between the active articulator and passive articulator. There is no evidence of trills in English. In Edo, there are only two trill sounds: / ʀ r / and are represented by the letters *rh* and *rr* respectively. While / ʀ / is voiceless, / r / is voiced. These sounds never occur at word final positions in the language.

Approximants: Approximants are sounds produced without audible friction. The approximants / r j w / are evident in English. For Edo, we have / j w / as the approximants in the language and they never occur at word final position. Also the approximants are voiced and represented with the letters, y and w respectively.

Below, we present a contrastive phonemic chart of English and Edo consonant phonemes. The sounds written plainly are the phonemic sounds common to both languages. However, the sounds written in bold are the sounds in English that are absent in Edo. Edo sounds absent in English are the ones written in italics.

	Bilabial	Labio-dental	Alveolar	Alveo-palatal	Palatal	Velar	Labial velar	Dental	Glottal
Plosives	p b		t d			k g	kp gb		ʔ
Fricative	β	f v	s z	ʃ ʒ			x ɣ	θ ð	h
Affricate				tʃ dʒ					
Trill			r						
Tap			ɾ						
Lateral			l						
Nasal	m	ɱ	n		ɲ	ŋ	ŋɓ		
Approx					j		w		

Fig. 3: Contrastive phonemic chart of English and Edo consonants

Vowel sounds of English and Edo

Vowels are speech sounds pronounced with no obstruction of the air coming from the lungs. All languages of the world possess vowel sounds that play vital roles in the production of speech. It is one of the two general categories employed for the classification of speech sounds.

The English language vowel system is a complex one as there are 20 vowel sounds in English. These vowels are categorized into three basic classes as shown below:

Pure vowels: / i:/, / i/, / e/, / æ/, / a:/, / ɒ/, / ɔ:/, / ʌ/, / ə/, / ɜ:/, / ʊ/, / u:/ .

Diphthongs: / ei/, / ai/, / ɔi/, / iə/, / eə/, / uə/, / au/, / əu/ .

The English vowel sounds and their distribution are presented in the table below:

Table 3: The English vowels

S/N	Sounds	Words where they occur
1	i:	sheep, leave, meal
2	ɪ	ship, read, sit
3	e	bed, desk, hen, pen
4	æ	mat, cat man
5	ɑ:	far, bar, heart
6	ɒ	on, pot, odd
7	ɔ:	door, short, floor
8	ʊ	good, book, foot
9	ʌ	up, cup, come
10	ɜ:	bird, heard, girl
11	u:	shoot, put, too
12	ə	teacher, about, abroad
13	eɪ	fate, gate, cake
14	ɔɪ	oil, boy, soil
15	aɪ	buy, fight, my
16	əʊ	go, toad, so goat
17	aʊ	how, loud, round
18	iə	fear, tear, here
19	eə	pear, wear
20	ʊə	tour, sour, pour

The vowels of English are spelt differently and also pronounced differently. For example, the vowel /ɔ:/ is spelt differently in the words “caught,” “horse,” “law,” /ɜ:/ occurs in the words, “bird,” “earn,” “learn.” There is no doubt that this will constitute a huge problem for the Edo ESL learners. In English, when syllables end in a vowel followed by a consonant as in the words, “mat,” “mutt,” “pen,” the vowel is shortened. Again, in the language, the phoneme /ə/ has two major allophones In RP: one central and half closed that occurs in nonfinal position as in “about,” and one central and about half open which occurs before pause in the “tailor.” Pure vowels are presented in a phonemic chart below:

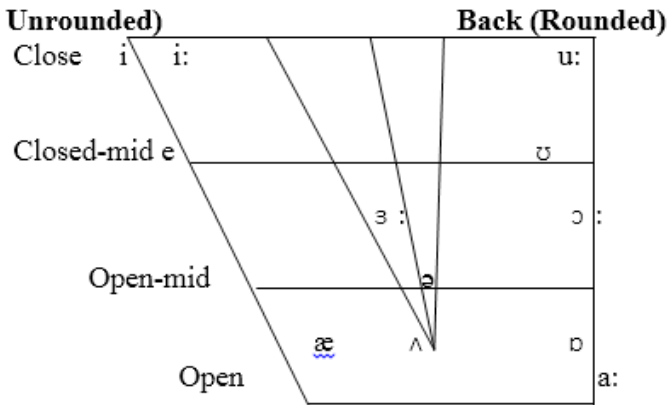


Fig. 4: The phonemic chart of pure English vowels

The vowel system of Edo is made up of 12 vowels in its sound system. According to Omozuwa (2010), of this number, 7 are oral vowels while the remaining five are nasals. The vowels are: Oral vowels: /i e ε a ɔ o u/. Nasal vowels: /ĩ ē ā õ ù/. The vowel sounds and their distribution are presented below:

Table 4: Edo vowel sounds

	Sound	Words where they occur
1	ɪ	ise (nail), fi(throw)
2	e	eva (two), ebe(book)
3	ε	ẹho (throat), ise(amen)
4	a	amẹ (water), ema(pounded yam)
5	ɔ	omɔ (child), obɔ(hand)
6	o	obɔ (hand), so(shout)
7	u	ukpon (cloth), ẹwu(dress)
8	ĩ	tin (fly), ivin(coconut)
9	ē	iseṅ (five), ofeṅ(rat)
10	ā	tan (tall), isan(excreta)
11	õ	tɔṅ (hot), esɔṅ(isgrace
12	ũ	uvun (hole), sun(smooth)

The vowel system of Edo is a simple one as the sounds are spelt in the same way as they are pronounced. There is a one-to-one correspondence between the phonemic and orthographic form in the language. For example the sound /ɔ/ is represented by only one letter of the Edo alphabet “ɔ.” This sound is realized in the following words, *omɔ*, *omwa*, *ɔten*, *ɔzuɔ* and *ɔkpa*. According to Omozuwa (2010), nasal vowels do not occur at word-initial position of any word in the language.

In learning English, the Edo ESL learners will encounter serious problems as the difficulty of identifying the appropriate letter for each sound will definitely arise. Again, the distribution of a vowel goes to prove if it is shortened or lengthened. Such a situation does not occur in Edo. All oral vowels in the language can occur at any position in a lexical formative in the language. The nasal vowels do not occur at word-initial position but can be found at word-medial or -final positions in the language. It is pertinent to add here that the oral vowels in the language can be affected by the presence of a nasal consonant, in which case the oral vowel becomes automatically nasalized.

The vowels of Edo are presented in a phonemic chart as shown below:

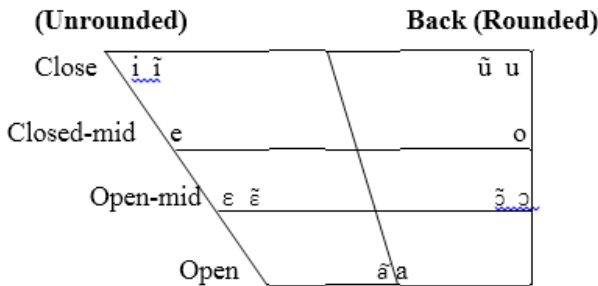


Fig. 5: The Phonemic Vowel Chart of Edo

Diphthongs

Diphthongs are vowels with double quality. The English language has a total of eight diphthongs: /ei/, /ai/, /ɔi/, /iə/, /eə/, /uə/, /au/, /əu/. These sounds are not restricted in their distribution as they can be found in any position in a lexical formative. Words where diphthongs are found in English include: goat, go, fight, pour, fear, how. Usually with these sounds, the first vowel is longer than the second during pronunciation and this pose a lot of difficulties for the ESL learner.

For Edo, there are no diphthongs in the language and vowel clusters are

therefore not permitted. These vowel sounds usually create problems for the ESL learner, who interchanges the diphthongs with the pure vowels they are familiar with.

Conclusion

This paper examines the segmental sounds of English and Edo using the contrastive analysis theory by Lado (1957), to ascertain the areas of difficulty for the Edo native speaker learning English. The consonant sounds are examined and noticed that the sounds /ŋ tʃ dʒ ʔ ʃ ʒ/ are absent in Edo, which constitute problems for the learners. As such, the teacher should focus more on the teaching of these sounds than the ones the students have in their linguistic repertoire.

However, the major area of concern is the learning of the vowels of English. The problem identified in this paper is that the vowels are spelt and pronounced differently, which invariably will be confusing and quite challenging in learning them. Again, the diphthongs will pose problems for the ESL learner as such sounds may be replaced by the pure vowels in the Edo language they are used to. It is believed, following Lado (1957) and Selinker (1996) that if these areas are identified and handled by the teachers of ESL accordingly, these difficulties will therefore be greatly reduced for the learners.

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