



A Contrastive Study of English and Ịzọn Sound Patterns: Implications for Izon English Bilinguals

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Abstract

This paper is a descriptive study of segmental and supra-segmental features of English and Ịzọn languages as well as the interference that occurs in the spoken English performance of Ịzọn English bilinguals. It investigates the differences in the sound systems of both languages that result in interference. Through the literature and by observation, the researcher noted alarming phonological errors or interference in the spoken English performance of Ịzọn speakers. These errors are notable in the spoken performance of secondary school students, undergraduates, and even graduates. It is therefore emphasized that interference occurs as a result of systematic differences in both language systems and also, the level of exposure of the Ịzọn speaker to oral English education. This work considers only segmental and supra-segmental phonology of both languages. This work is anchored on Jim Fledges Speech Learning Model and Contrastive Analysis. Contrastive analysis (CA) is an essential tool for identifying areas of difficulties that second language learners encounter. The application of this theory is triggered by the fact that it makes easy the learning of second language, as the features of both the first and second language are contrasted. In this study, it is discovered that there are differences between Ịzọn and English segmental and supra-segmental features. It also revealed that English and Ịzọn supra-segmental features are totally different. Although, it revealed that there are also a few similarities between the phonemes of both languages. On the area of supra-segmental, both languages carry out lexical functions: as both English stress and Ịzọn tone are used to determine parts of speech. The consequence of these differences is that Ịzọn learners of English find it difficult to learn English phonemes, stress and intonation. Through the application of CA as an instrument in the study, the researcher was able to: predict areas of difficulties encountered by Ịzọn speakers who learn English,

provide an explanation on why these difficulties crop up, proffer solutions to these problems, provide data that will be useful to teachers who teach Izo English bilinguals at all levels of instruction.

Subject Areas

Contrastive Phonology and Bilingualism

Keywords

Phonological Interference, Segmental Features, Supra-segmental Features, Izo-English Bilinguals, Speech Learning Model, English Stress, Izo Tone

1. Introduction

English and Izo are two different languages that belong neither to the same family nor the same origin [1]. Izo is Niger-Congo while English is European [2]. The Izo language like the English language has its unique sound system which makes it distinctive from English language. However, some sounds that exist in English also exist in the Izo sound system while some are nonexistent in Izo sound system [3]. The dissimilarities between English and Izo segmental and supra-segmental features pose a lot of problems in the effective acquisition of English phonology as some element features of the L1 are transferred to English [4]. A cursory observation of the speech communication situation of Izo English bilinguals reveals that wrong pronunciation of words is a major problem that needs to be tackled [5]. If a proper attention is not given to tackling phonological issues arising from interference, the English language might lose its phonological beauty in Izo speaking communities, (especially the kolokuma communities).

The crux of this work is to examine the similarities and differences between English and Izo (kolokuma dialect) segmental and supra-segmental features which constitute interference on the phonology of Standard British English.

In order to achieve the objectives of this study, the researcher designed the following research questions:

- 1) What phonemes are present in English and Izo sound systems?
- 2) How do English and Izo phonemes differ?
- 3) What English phonemes are problematic to Izo English bilinguals?
- 4) To what extent does L1 Interference affect the spoken English performance of Izo English bilinguals?
- 5) What measures should be adopted towards the eradication of interference?

This work is carried out to ensure that English phonology is used correctly by Izo English bilinguals. Perhaps, there could be a relationship between the correct use or application of English sounds (phonemes) and effective communication and also the survival of English in Izo communities.

The Izon Language

The word “Izon” means “truth” [6]. The Izon people are indeed an epitome of the word “truth”. They are trust worthy intelligent, brave and honest. The Izon people are found all over the Niger Delta Region of Nigeria. The Izon people are settled in Edo, Ondo, Delta, Rivers states and Bayelsa state which is the mother of all Izon ethnic groups [7].

Izon is one of the languages of Ijo. Ijaw is the anglicized form of Ijo which together with its sister language “Defaka” are Ijoid languages that belong to the Atlantic-Congo branch of the Niger Congo languages [7] [8]. The Ijo language is spoken in five states in Nigeria. They include: Bayelsa, Delta, Edo, Ondo and Rivers State. The language is multi-dialectal, with about thirty one identified varieties spread across different ethnic groups [9]. The speakers of Ijo consist of kolokuma, southern Ijaw, Ekeremo, Gbarain/Epketiama Ibani, Okirika, Kalabari, Nkoro, Bile, Nembe, Akassa, Ogbia, Epie, Atisai, Biseni, Okordia, Oruma, etc. “Each dialect is at least partially intelligible with others, but intelligibility diminishes across dialect borders with difference in phonology. “Those from the extreme east of the Ijo area are not mutually intelligible with those from the west” [10].

2. Research Methodology

This work is an empirical based study. Data for this study was collected from two sources;

- 1) Primary source.
- 2) Secondary source.

The primary data was collected from twenty selected Izon English bilingual secondary school students. That is, participants were given an oral test. Words were given to participants to pronounce while the researcher took an audio record of their performance. Also, the primary data was collected through personal observation. For the secondary data, the researcher gathered phonological data from exiting literature on both Izon and English phonemes such as textbooks, articles in journals and the internet.

The researcher made use of a structured oral test for data collection. The oral test consists of twenty English words; the twenty words are all single words. The words were designed by the researcher to test the ability of the respondents, whether they will be able to pronounce the words to reflect the target sounds and also identify the English sounds that are problematic. An audio record was done as correspondents pronounced the selected words.

The data was analysed contrastively as well as descriptively; the researcher described the data using the results from the oral test and draw conclusion from the research questions using simple frequency.

3. Result and Discussion

3.1. Segmental Phonemes of English and Izon

Gibson [11] cited in Osisanwo [12] stated that it is “an abstract linguistic unit

which can bring about a change in meaning”.

English language has forty-four speech sound units [13]. They are divided into twenty four consonant sounds and twenty vowel sounds. The vowel sounds are further divided into twelve pure vowels and eight diphthong sounds [14].

Research questions (1) and (2)

(1) What phonemes are present in English and Izon sound systems?

(2) How do English and Izon phonemes differ?

3.2. Differences and Similarities between English and Izon Vowels

Studies have shown that there are differences between English and Izon vocalic phonemes (phoneme). Whereas Izon has a total of nine (9) vowels, English has a total of twenty (20) vowels of which twelve are monothongs while the rest eight (8) are diphthongs [3]. The monothongs are further classified into two groups, which are: seven (7) short vowels: /i/ /e/ /æ/ /ʌ/ /ɔ/ /u/ /ə/ and (5) long vowels: /i:/ /ɜ:/ /ɑ:/ /ɔ:/ /u:/ [15]. In English, there are also vowels classified as diphthong sounds. The diphthongs are /ɪə/ /eə/ /ʊə/ /eɪ/ /aɪ/ /ɔɪ/ /əʊ/ /aʊ/ [16]. There are also some vowels classified as triphthong. The diphthongs are made up of three vowel sounds. They are: eɪ + ə = eɪə, aɪ + ə = aɪə, ɔɪ + ə = ɔɪə, əʊ + ə = əʊə, aʊ + ə = aʊə [17].

In Izon, there is no distinction between short vowels and long vowels, rather, it classified vowels into narrow vowels ɛ, ɪ, ɔ, ɸ and wide vowels a, e, i, o, u. In order to realise a long vowel, vowels are reduplicated in a word to stretch its pronunciation.

Distinction between English short and long vowels.

/ɪ/	as in bin	/bɪn/	/ɔ/	as in pot	/pɔt/
/ɪ:/	as in been	/bɪ:n/	/ɔ:/	as in port	/pɔ:t/
/e/	as in get	/get/	/ʊ/	as in put	/pʊt/
/ɜ:/	as in girl	/gɜ:l/	/u:/	as in pool	/pu:l/
/æ/	as in car	/kæt/	/ʌ/	as in luck	/lʌk/
/ɑ:/	as in cart	/kɑ:t/	/ə/	as in alone	/ələʊn/

Vowel reduplication is shown in the following Izon lexical items.

Opu	/opuú/	big	ɛɛ	/ɛɛɛ/	name
goon	/goon/	bight	ngha	/nghaá/	emphasis
akpa	/akpaá/	bag	bo	/boo/	come
emi	/emií/	available			

Unlike English, there are no diphthongs in Izon, what Izon has is vowel combination. They are: /eɪ/, /ou/, /aɪ/, /aʊ/, and /ɔi/.

The findings of this study show that the following English vowels do not exist

in ẪẪ vowel system. /ɜ:/, /ɪ:/, /ɔ:/ /u:/ /ə/ /ʌ/ /ɪə/ /eə/ /aɪ/ /aʊ/ /ɔɪ/ /eɪ/ /əʊ/ /ʊə/. Owing to the absent of these vocalic phonemes in ẪẪ, ẪẪ English bilinguals who learn English tend to substitute these vowels with sounds that are similar to these sounds.

Unlike the English Language, Izon does not have diphthong. What Izon has is vowel combinations which are closer to closing diphthongs such as; eɪ, ou, aɪ, aʊ, ɔɪ as shown in **Table 1**.

Table 1. A contrastive table of English and Izon vocalic phoneme (vowels).

S/N	English vowels	Izon
1	ɪ	ɪ
2	i:	–
3	–	e
4	e	e
5	ɜ:	–
6	æ	æ
7	a:	–
8	ɔ	ɔ
9	ɔ:	–
10	–	o
11	ʊ	ʊ
12	u:	–
13	ʌ	–
14	ə	–
15	ɪə	–
16	eə	–
17	aɪ	–
18	aʊ	–
19	ɔɪ	–
20	eɪ	–
21	əʊ	–
22	ʊə	–

Research question (3) and (4)

3) What English phonemes are problematic to Izon English bilinguals?

4) To what extent does L1 Interference affect the spoken English performance of Izon English bilinguals

In the study, it is evident that ẪẪ speakers find it difficult to make a distinction between long /i:/ and short /ɪ/, this is because, ẪẪ does not differentiate long and short vowels. The ẪẪ speakers substitute /ɪ/ for /i:/ thereby pronouncing words

such as:

“beat” as /bɪt/ instead of /bɪ:t/

“seat” as /sɪt/ instead of /sɪ:/

tea as /tɪ/ instead of /ti:/

In the same vein, Iẏon speakers find it difficult to differentiate between short /æ/ and long /a:/. The Iẏon speaker will pronounce the words:

“car” as /kæ/ instead of /ka:/

“chart” as /ʃæt/ instead of /ʃa: t/

“bargain” as /bægen/ instead of /ba:gən/

Also, Iẏon English bilinguals find it difficult to distinguish between short /ɔ/ and long /ɔ:/. As a result, they pronounce words such as:

“port” as /pɔt/ instead of /pɔ:/

“short” as /ʃɔt/ instead of /ʃɔ:t/

“court” as /kɔt/ instead of /kɔ:t/

Furthermore, the Iẏon speakers find it difficult to pronounce the central vowels. /ʌ/ /ə/ /ɜ/. Among the English vowels, the central vowels stand out like a sore thumb. The difficulty encountered by Iẏon speakers in the production of the central vowels is a glaring one. Iẏon speakers usually substitute /ɔ/ for /ʌ/ thereby pronouncing words such as:

“cut” as /kɔt/ instead of /kʌt/

“love” as /lɔv/ instead of /lʌv/

“come” as /kɔm/ instead of /kʌm/

Also, they substitute /e/ for /ɜ:/ and /ɔ/. Thereby pronouncing words such as:

“church” as /ʃɔʃ/ instead of /ʃɜ:ʃ/

“nurse” as /nɔs/ instead of /nɜ:s/

“girl” as /gel/ instead of /gɜ:l/

The shwa sound /ə/ is usually substituted with /ɔ/ and /a/ by Iẏon speakers, thereby pronouncing words such as:

“mother” as /mɔðæ/ instead of /mʌðə/

“doctor” as /dɔktɔ/ instead of /dɔktə/

“teacher” as /tɪʃæ/ instead of /ti:ʃə/

3.3. English and Iẏon Consonants

Consonant sounds are speech sounds produced when there is obstruction in the vocal tract. It may be total or partial obstruction. Osisanwo (2009) said: consonant sounds are speech sounds produced by blocking the flow of air through contact with some speech organs. Consonant sounds can be classified by place of articulation, manner of articulation and state of glottis. There are twenty-four consonant sounds in English Language. They are: /p, b, f, v, t, d, k, g, θ, ð, s, z, tʃ, ʃ, l, dʒ,

ʒ, m, n, ŋ, r, h, w, j.

Differences and Similarities between English and Iẓon Consonants

Some of the English consonantal phonemes that have posed a lot of problems for the Iẓon speakers are the fricatives: /θ/, /ð/, /ʃ/, /ʒ/ and the affricates /tʃ/ and /dʒ/.

It has been confirmed and established that the English fricatives /θ/, /ð/, /ʃ/, /ʒ/ and affricates /tʃ/ and /dʒ/ are nonexistent in Iẓon sound system.

Dental voiceless fricative /θ/

The researcher discovered that a good number of Iẓon English bilinguals could not get the correct pronunciation of the dental voiceless fricative. The Iẓon language does not have the dental voiceless fricative and as a result is usually substituted with /t/. This substitution could be at the initial position, the medial and final position of words. Due to the inability of some Iẓon English bilinguals to differentiate /θ/ from /t/, /θ/ is realised as /t/ in speech. For instance:

/feit/ instead of /feɪθ/ “farth”

/tit/ instead of /ti:θ/ “teeth”

Dental voiced fricative /ð/

From the data presented, respondents could not pronounce this sound. Respondents substituted the dental voiced fricative /ð/ with the alveolar voiced plosive /d/ as it is not present in Iẓon sound system. All respondents pronounced:

/dem/ instead of /ðem/ “them”

/dat/ instead of /ðæt.

Post-alveolar voiceless fricative /ʃ/

The post-alveolar voiceless fricative constitutes a lot of problem for the Iẓon speakers, especially those that are deeply immersed in Iẓon language. This set of speakers usually substitutes the alveolar voiced fricative /s/ for /ʃ/ as it does not exist in the Iẓon sound system. Therefore, words such as:

“shoe” /ʃu:/ is realised as /su/

“she” /ʃi:/ is realised as /si/

Post-alveolar voiced fricative /ʒ/

The post-alveolar fricative does not exist in Iẓon sound system and not even in the phonology of any Nigeria language. As a result, /s/, /z/ /dʒ/ and /ʒ/ are usually substituted for /ʒ/ thereby pronouncing words such as:

pleasure for /pleʒə/ instead of /plezə/

“vision” for /vɪʒən/ instead of /vɪzən/

“measure” for /meʒə/ instead of /mezə/

Post alveolar voiceless affricate /tʃ/

This is another phoneme that is problematic to the Iẓon English bilinguals. It is substituted with /s/ and /ʃ/ thereby making words such as:

“chop” /tʃɔp/ to be realised as /sɔp/ or /ʃɔp/

“chicken” /tʃɪkɪn/ for /sɪkɪn/ or /fɪkɪn/,
 “challenge” /tʃælɪndʒ/ for /ʃalɛnʃ/ or /salɛnz/.

Post-alveolar voiced affricate /dʒ/

The post-alveolar voiced affricate is not found in the Ịzọn sound system. It is substituted with /z/ and /ʒ/. Words such as:

“James” /dʒeɪms/ is pronounced /zɛms/
 “jump” /dʒʌmp/ for /zɔmp/

Sometimes the Ịzọn speakers interchange phonemes. This is done in form of permutation where the order of segments is changed. For instance,

Jesus /dʒɪzəs/ for /zɪzɔs/
 righteous /raɪfəs/ for /raɪsɔs/.

This kind of interference is usually associated with those Ịzọn English bilinguals who are deeply immersed in the Ịzọn language.

Post-alveolar voiceless approximant /r/

The / Ịzọn sound system does not have the approximant /r/, what it has is the tap /l/ although, the difference is rarely noticed. The tap /l/ is substituted for the approximant /r/. The Ịzọn speaker will pronounce

“right” /fɹaɪt/ instead of /raɪt/.

Alveolar lateral approximant /l/

The Ịzọn alveolar lateral approximant is a clear one. Unlike English that has variant of /l/ sound. The Ịzọn speakers use the clear /l/ no matter its distributive position. Some Ịzọn speakers usually insert vowels before /l/ even though it is not necessary. For instance,

sparkule instead of sparkle
 middule instead of middle
 bottul instead of bottle

Glotta voiceless fricative /h/

The voiceless glotta fricative is one troublesome phoneme for the Ịzọn English bilinguals, as the sound does not occur in the initial position of Ịzọn words. It only occurs in the middle and final positions of Ịzọn words and it is only used in interjections. Some Ịzọn speakers drop it totally when pronouncing words that have the sound. Consequently, the Ịzọn speakers will pronounce:

/e/ instead of “hair” /heə/,
 ondred instead of hundred /hʌndred/,
 /av/ instead of “have” /hæv/.

Ịzọn English bilinguals sometimes unconsciously add the /h/ sound to words that do not have the sound. This could be heard in words such as:

“eye” for /haɪ/ instead of /aɪ/,

“house” for /aʊs/ instead of /haus/,
 “it” for /ɦɪt/ instead of /ɪt/.

A summary of the language analysis conducted in the field work is presented in **Table 2**.

Table 2. Comparative analysis of participant performance against targets and spelling accuracy.

s/n	Process	No of participant with wrong performance.	Percentage	No of participant with correct performance	percentage	Participant performance	Target performance	Word/ Spelling
1	/θ/	20	100%	0	0%	/tɪŋ/	/θɪŋ/	Thing
2	/ð/	20	100%	0	0%	/dæt/	/ðæt/	That
3	/ʃ/	2	10%	18	90%	/sʊ/	/ʃu:/	Shoe
4	/ʒ/	17	85%	3	15%	/vɪʒən/	/vɪʒən/	Vision
5	/tʃ/	16	80%	4	20%	/ʃɪp/	/tʃɪp/	Cheap
6	/dʒ/	15	75%	5	25%	/brɪʒ/	/brɪdʒ/	Bridge
7	/h/	20	100%	0	0%	/aʊs/	/haus/	House

Source: (field work).

3.4. English and Izon Supra-Segmental Features

According to Lyons [18] cited in Okorji and Okeke [19] supra-segmental refers to the Superimposition of features on the segmental (phonemes). By supra-segmental phonology is meant the study of the additional elements or properties that bear upon sound segments of a language [20].

Differences and Similarities between English and Iẓon Supra-Segmental

In the course of the study, the researcher discovered that both Iẓon and English have supra-segmental features. Whereas English has “stress” and “intonation” as its supra-segmental features, Iẓon has “tone” as its supra-segmental feature. While Iẓon is a syllable timed language, English is a stress timed language. These differences constitute pronunciation problems for Iẓon speakers in terms of word stress and intonation in sentences.

The implication is that, Iẓon English bilinguals pronounce English words using tone rather than stress.

Examples:

Word	stress	tone
little	/ˈlɪtl/	/lɪtùl/
bank	/ˈbæŋk/	/báŋki/
rather	/raːðə/	/rádà/
language	/ˈlæŋgwɪdʒ/	/láŋgwizì/

Also, Iẓon English bilinguals find it difficult to use stress when pronouncing English words. They find it difficult to identify word class using stress pattern. But similarly, Iẓon tone functions like that of the English stress thereby carry out grammatical and lexical functions. Like the English stress, the Iẓon tone can be used to change a word to different word class.

The following lexical items illustrate these changes.

akụ	bitter	adjective
akú	a tree	noun
amaa	right	adjective
amaá	adultery	noun
biri	middle	verb
bírí	to take a bath	noun
bụrụ	to prophesy	verb
burú	yam	noun

Furthermore, Iẓon is a syllable timed language while English is a stress timed language. For this reason, Iẓon speaker will pronounce English words syllable by syllable thereby waving off the stress patterns in words rather than stressing the words. The implication is that words such as:

little	as	li-tu-lu
bread	as	bi-re-di
penalty	as	pe-na-li-ty
needle	as	nee-du-lu
bucket	as	bu-ke-ti
business	as	bis-zi-ne-si

In English language, the mood and attitude of a speaker determines the intonation pattern. The attitude of the speaker brings about changes in the meaning of words or utterance, but in Iẓon, the state of a speaker does not bring about change in intonation in words or utterances. That is to say, Iẓon English bilinguals do not distinguish between the falling and rising of pitch of the voice in utterances.

Examples:

Yes ∨

Yes ↗

No ∨

No ↗

In the above utterance, the arrow facing downward shows that the speaker is certain or sure of his decision but the arrow facing upward shows the speaker is not certain. But this is not the case with the Iẓon language. To the Iẓon speakers,

“Yes” remains “Yes”, “No” remains “No”.

Relating Jim Fledges Speech Learning Model (theory) to this study, the researcher found that the theory is justifiable in this case. Fledges theory holds that learning a second language is more difficult as the phonetic space becomes more committed to the first language [21]. For the Ịzọn speakers, acquisition of English sounds is controlled or affected by Ịzọn language as the speech organs have already developed, structured, stiff and have been modelled after the Ịzọn language. They therefore find it difficult to manipulate or learn those sounds that are not present in Ịzọn language. This is the reason for the interference as learners use sounds that exist in the Ịzọn language to substitute the sounds in English.

4. Conclusions

In the course of the study, the researcher discovered that interference occurs as a result of differences in the sound system of both languages. It was also discovered that interference does not only occur as a result of difference in both language systems, but also occurs as a result of the degree of the individual’s immersion in the Ịzọn language and environment and also his level of exposure or access to oral English lessons. The degree of interference varies: those who are deeply immersed in Ịzọn language or had no oral English lessons have a greater degree of interference while those who had oral English lessons have mild interference.

Research question (5):

What measures should be adopted towards the eradication of interference?

5. Recommendations

1) Teaching of English phonemes/pronunciation in schools should commence at an early stage. It should start before the age of five (5); the reason is that at twelve (12), the speech organ are fully developed and modelled after the mother tongue/first language.

2) The oral English language teacher should lay more emphasis on the troublesome phonemes. The distinction in manner and place of articulation should be given more emphasis.

3) The oral English language teacher should make use of framework of electronic text which could be in form of prose passage, or dialogue should be used with the students. With this, a learner in the pronunciation class listens and imitates the words articulated by a native speaker.

4) The government should ensure that both private and public schools set up a language laboratory for effective language teaching and learning.

5) Ịzọn English bilinguals should learn and master the distinctions between the sound system of Ịzọn and the sound system of English language. They should inculcate the habit of applying the appropriate sounds on English words when speaking.

Conflicts of Interest

The authors declare no conflicts of interest.

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