A CONSTRASTIVE STUDY OF IGBO AND FRENCH SPEECH SOUNDS

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Abstract

This paper is aimed at finding out the similarities and differences between the speech sounds of the languages under review and predict difficulties Igbo learners of French and French learners of Igbo may encounter and proffer solutions to these difficulties. This study's major interest is on the phonemic level of the phonology of Igbo and French. Based on this, the researchers compared the phonemes of both languages. This research work is based on the contrastive analysis theory of Robert Lado (1957). Findings of this study, showed that both languages share similarities in sixteen (16) consonants and six (6) vowels, and differences in thirteen (13) consonants and twelve (12) vowels. Although the /r/ and /w/ sounds exist in both languages, their places of articulation differ. Following the assumptions of contrastive analysis, these differences are presumed to constitute learning difficulties. To avert these difficulties for the L2 learners of Igbo and French, much emphasis need to be drawn on these stated areas of differences and properly handled by language teachers.

Keywords: Language, Phonology, Phoneme, Igbo, French, Contrastive study

Introduction

Language is an integral part of humans' relations. It plays a central role in human history. Language has its root in sound. Anozie (1999) defined language as sounds that humans make which brings forth meaning when organs of speech come together to interact in organized manner. Mbah (2007) corroborates this as she opines that language is a systematic use of sounds and symbols to express one's feelings, thoughts, and for human interaction. Language learning makes room for ease of interaction amongst people of different cultures and languages thereby promoting language growth. Different languages find their way into alien cultures and environments. A situation of learning and adopting these languages for interaction always poses a threat due to the disparities between them in various levels of linguistic description. One of these levels where major differences are marked is the phonology level.

Igbo language is one of the languages spoken in Nigeria. It is predominantly spoken by Igbos found in the South-eastern part of Nigeria. The Igbo language is of the Kwa language group in the Niger-Congo language family and has about thirty (30) million speakers. French language which takes its origin from the Vulgar Latin of the Roman Empire, is a Romance language of the Indo-European language family. It has about seventy-seven (77) million native speakers all over the world and functions as an official language in twenty-nine (29) countries of the world.

The interest of this study is to look at the similarities and differences that exits between the phonology of Igbo and French with emphasis on their phonemic inventories using contrastive analysis method. Contrastive analysis looks at the similarities and differences between a native language and a target language, to see where potential problems may arise. These problems could make it difficult for language learners to achieve success in their language learning endeavours. This study is intended to discuss and bring to bear the similarities and differences between the phonemes of Igbo and French in order to assist learners and teachers, predicting problems they could encounter and proffering solutions to these problems for better language learning while eliminating inter-language development in their target language.

Empirical Review

Contrastive analysis works well in predicting and explaining the language learning process. It derives its hypotheses from comparison, which is done to yield similarities and differences of two languages especially a native and a target language, to ascertain the level of difficulty language learners may encounter. Fries (1945), raised an assumption which states that the most effective materials in language learning and language teaching are those based upon a scientific description of the language to be learned carefully compared and contrasted with the parallel description of the language of the learners. Lado (1957), opined that through contrastive analysis, it is possible to identify the areas of difficulty a particular foreign language will present for native speakers of another language by systematically comparing the two languages and cultures. From the above explanations, it is imperative to state that contrastive analysis x-rays a foreign and native language putting both side by side to ascertain the similarities and differences between the two making it easier for native learners to understand the concepts of the foreign language. Firbas (1992) looks at contrastive analysis as a method that proves to be a useful heuristic tool capable of throwing valuable light on the characteristic features of the languages contrasted. These characteristic features of languages start off from the sounds, which is the phonology level.

Markey (1998) did a contrastive analysis of French and American English. She compared the phonemes of both languages focusing on the differences in consonant phonemes. She observed that six (6) consonant phonemes present in English are not in French. These consonant phonemes are: /θ ð h ŋ ʧ ʤ/. She opined that contrastive analysis predicts that French speakers will have problem pronouncing English words that contain these sounds. She further noted that words like *think*, *that*, *help*, *sing*, *witch*, *hitch* and *jog* will be difficult for French speakers because they are unaccustomed to these sounds, regardless of where the sounds are located in the word. She recommended that French learners of English should be taught the distinctive features of these unfamiliar sounds. N'Gom (1997) through his research on the contrastive phonological analysis of French and Mandinka, revealed that the French vowels /y ø œ œ̃ ɔ̃ ɑ̃ ə/ and consonants /g v z ʒ ʃ ɥ/ are not in Mandinka and as such, Mandinka speakers will have difficulty pronouncing words containing these sounds. He proposed that for Mandinka learners of French, much emphasis should be laid on these unfamiliar sounds. Eme and Uba (2014) in their contrastive analysis of the phonology of Igbo and Yoruba, presented that Igbo has all the consonants of Yoruba and additional ten (10) which are lacking in Yoruba. These consonants are: /p kw gw v z ŋ ŋw ɲ ɣ ʄ/. For the vowels, they observed that Igbo has eight oral vowels while Yoruba has seven (7) oral vowels and five (5) nasal vowels. They further stated that the major difference in the vowel system of both languages is that Yoruba has five (5) nasal vowels /ɪ ɛ a ɔ u/ which Igbo lacks. Also, the vowels /ɪ/ and /ʊ/ are phonemically present in Igbo but absent in Yoruba, while /ɛ/ is phonemically present in Yoruba but absent in Igbo. They predicted that with these differences, there will be pronunciation problems for Igbo learners of Yoruba and Yoruba learners of Igbo. They proposed that to prevent these pronunciation errors, Igbo learners of Yoruba should be taught to produce and master those Yoruba sounds they are not familiar with and the same should be done with Yoruba learners of Igbo concerning the Igbo sounds they are not familiar with. Umar (2015) did a contrastive analysis of Hausa and Igbo sound inventories. He presented that the consonant phonemes /ɓ ɗ gy ƙ ky ƙw ƙy ts 'y/ present in Hausa are absent in Igbo and also the consonant phonemes /gb ɣ kp ŋ ŋw ɲ p v/ present in Igbo are absent in Hausa. He observed that the vocalic diphthongs /ai au ui/ in Hausa are absent in Igbo and the vowels /ɪ ɔ ʊ/ present in Igbo are absent in Hausa. He recommended that the similarities and difference found in both languages should be used to create a linguistic family tree with the aim of aiding Igbo learners of Hausa

and Hausa learners of Igbo for easy language acquisition. In this study, we will contrastively look at the phonemes of Igbo and French, bringing out their similarities and differences and predicting likely problems Igbo learners of French and French learners of Igbo will encounter and suggest ways of preventing these problems.

Methodology

This research work is based on the contrastive analysis method. This method is most suitable as it enabled the researchers to compare the speech sounds of both languages, paying special attention to the differences that exit in their sound pattern in line with the tenets of contrastive analysis. The researchers made use of already exiting and established works done separately on the phonology of each of the languages in review. For the speech sounds of Igbo, this research work adopted Ikekeọnwụ, Ezikeojiakụ, Ụbanị and Ugọjị (1999), whose work shows that there are thirty-six phonemes in the Igbo phonemic inventory comprising of twenty-eight consonants (28) and eight (8) vowels. For the speech sounds of French, this research work adopted Carduner and Hagiwara (1982), whose work shows that there are thirty-seven phonemes in the French phonemic inventory comprising of twenty-one (21) consonants and sixteen (16) vowels.

Igbo speech sounds

The standard Igbo has thirty-six (36) phonemes, which comprises of twenty-eight (28) consonants and eight (8) vowels.

Igbo consonants

There are twenty-eight (28) phonemic consonants in Igbo which are: /p b t d k g kp gb kw gw m n ɲŋŋw f v s z ʃɣɦʧʤ l r j w/. These consonants according to Ikekeọnwụ, Ezikeojiakụ, Ụbanị and Ugọjị (1999), are described using their places of articulation, manner of articulation and the state of the glottis. Place of articulation describes the organs of speech that come together for the articulation of a sound. Manner of articulation describes how the airstream used in the production of a consonant is manipulated during the production of the consonant. Mbah and Mbah (2010) stated that the manipulation of the airstream could be classified as complete closure, partial closure and open closure/approximation. The descriptions of these consonants and their word examples are shown below:

Plosives

There are ten (10) plosives in the Igbo consonant. These speech sounds are regarded as plosives due to the complete closure of the airstream and the explosion that comes afterwards while articulating them. These plosives are: /p b t d k g kp gb kw gw/. They occur only at word initial and medial positions, but do not occur at word final positions.

(i) /p/ is a voiceless bilabial plosive. Examples:
/pɪa/ (pịa) ‘press’, /opi/ (opi) ‘whistle’, /apɪpɪa/ (apịpịa) ‘cane’

(ii) /b/ is a voiced bilabial plosive. Examples:
/bɪa/ (bịa) ‘come’, /obe/ (obe) ‘cross’, /ɔbara/ (ọbara) ‘blood’

(iii) /t/: is a voiceless alveolar plosive.Examples:
/ta/ (ta) ‘chew’, /ute/ (ute) ‘mat’, /ʊtʊtʊ/ (ụtụtụ) ‘morning’

(iv) /d/ is a voiced alveolar plosive. Examples:
/de/ (de) ‘write’, /udo/ (udo) ‘peace’, /edide/ (edide) ‘write up’

(v) /k/: is a voiceless velar plosive. Examples:
/ke/ (ke) ‘tie’, /oke/ (oke) ‘rat’, /ikike/ (ikike) ‘authority’

(vi) /g/ is a voiced velar plosive. Examples:
/ga/ (ga) ‘go’, /oge/ (oge) ‘time’, /ogige/ (ogige) ‘garden’

(vii) /kp/: is a voiceless labio-velar plosive. Examples:
/kpe/ (kpe) ‘pray’, /okpu/ (okpu) ‘cap’, /okpukpere/ (okpukpere) ‘religion’

(viii) /gb/ is a voiced labio-velar plosive. Examples:
/gba/ (gba) ‘run’, /ogbe/ (ogbe) ‘cluster’, /ogbugbu/ (ogbugbu) ‘killing’

(ix) /kw/ is a voiceless labialized velar plosive. Examples:
/kwe/ (kwe) ‘agree’, /okwu/ (okwu) ‘speech’, /okwukwe/ (okwukwe) ‘faith’

(x) /gw/ is a voiced labialized velar plosive. Examples:
/gwa/ (gwa) ‘tell’, /igwe/ (igwe) ‘iron’, /ogwugwu/ (ogwugwu) ‘deity’

Nasals
There are five (5) nasals in the Igbo consonant. These speech sounds are regarded as nasals due to the passage of air from the airstream through the nostril as there is complete closure of the velum while articulating them. These nasals are: /m ɳɲŋɲw/. They are all voiced. They occur only at word initial and medial positions except for /m/ which also occurs at word final position when it functions as a syllabic nasal.
(i) /m/ is a voiced bilabial nasal. Examples:
/mpi/ (mpi) ‘horn’, /omume/ (omume) ‘character’, /ɔdʊm/ (ọdụm) ‘lion’

(ii) /n/ is a voiced alveolar nasal. Examples:
/ncha/ (ncha) ‘soap’, /une/ (une) ‘banana’, /anʊnʊ/ (anụnụ) ‘blue’

(iii) /ɲ/ is a voiced palatal nasal. Examples:
/ɲe/ (nye) ‘give’, /aɲa/ (anya) ‘eye’, /ɪɲɪɲa/ (ịnyịnya) ‘horse’

(iv) /ŋ/ is a voiced velar nasal. Examples:
/ŋʊ/ (ńụ) ‘drink’, /aŋʊ/ (aǹụ) ‘bee’, /ɔŋʊ/ (ọńụ) ‘joy’

(v) /ŋw/ is a voiced labialized velar nasal. Examples:
/ŋwe/ (nwe) ‘own’, /ɔŋwʊ/ (ọnwụ) ‘death’, /ɔŋwʊŋwa/ (ọnwụnwa) ‘temptation’

Fricatives
There are seven (7) fricatives in standard Igbo consonant. These speech sounds are regarded as fricatives due to the partial closure of the airstream while articulating them. These fricatives are: /f v s z ʃ ɣ ɦ/. They occur only at word initial and medial positions except for /ʃ/ which occurs only at word medial position.
(i) /f / is a voiceless labio-dental fricative. Examples:
/fe/ (fe) ‘fly’, /ofe/ (ofe) ‘soup’, /ofufe/ (ofufe) ‘worship’

(ii) /v/ is a voiced labio-dental fricative. Examples:
/vʊ/ (vụ) ‘fell’, /Ivo/ (Ivo) ‘name of a town’, /vum/ (vum)‘onomatopoeic sound’

(iii) /s/ is a voiceless alveolar fricative. Examples:
/sa/ (sa) ‘wash’, /ose/ (ose) ‘pepper’, /osisi/ (osisi) ‘tree’

(iv) /z/ is a voiced alveolar fricative. Examples:
/za/ (za) ‘answer’, /ozi/ (ozi) ‘message’, /azɪza/ (azịza) ‘broom’

(v) /ʃ/ is a voiceless post-alveolar fricative. Examples:
/aʃà/ (asha) ‘weaver bird’, /ɪʃa/ (ịsha) ‘crayfish’

(vi) /ɣ/ is a voiced velar fricative. Examples:

/ɣɔ/ (ghọ) ‘pluck’, /oɣe/ (oghe) ‘open’, /oɣiɣe/ (oghighe)‘frying’

(i) /ɦ/ is voiced glottal fricative.Examples:
/ɦa/ (ha) ‘they’, /aɦa/ (aha) ‘name’, /eɦiɦie/ (ehihie) ‘afternoon’

Affricates
There are only two (2) affricates in the standard Igbo consonant. These speech sounds are regarded as affricates due to the complete closure of the airstream and gentle release afterwards while articulating them. These affricates are: /ʧ ʤ/. They occur only at word initial and medial positions.
(i) /ʧ/ is a voiceless post-alveolar affricate. Examples:
/ʧe/ (che) ‘wait’, /oʧe/ (oche) ‘chair’, /eʧiʧe/ (echiche) ‘thought’

(ii) /ʤ/ is a voiced post-alveolar affricate. Examples:
/ʤe/ (je) ‘go’, /aʤa/ (aja) ‘sand’, /aʤʊʤʊ/ (ajụjụ) ‘question’

Lateral
There is only one (1) lateral in the standard Igbo consonant. The articulation of this speech sound occurs when there is a closure of the nasal cavity and the opening of the oral cavity while the tip of the tongue makes contact with the alveolar. This lateral sound is /l/. It occurs only at word initial and medial positions.
(i) /l/ is a voiced alveolar lateral. Examples:
/le/ (le) ‘look’, /olu/ (olu) ‘neck’, /olilo/ (olilo) ‘assimilation’

Trill
There is only one (1) trill in the standard Igbo consonant. The articulation of this speech sound occurs when there is a closure of the nasal cavity and the opening of the oral cavity while the tip of the tongue makes contact with the soft palate. This trill sound is /r/. It occurs only at word initial and medial positions.
(i) /r/ is a voiced alveolar trill. Examples:
/ri/ (ri) ‘eat’, /ara/ (ara) ‘madness’, /oriri/ (oriri) ‘feast’

Approximant
There are two (2) approximants in the standard Igbo consonant. The articulation of these speech sounds occur when there is a closure of the nasal cavity and the opening of the oral cavity, while the front of the tongue makes contact with the hard palate. These approximant sounds are /j w/. They occur only at word initial and medial positions.
(i) /j/ is a voiced palatal approximant. Examples:
/ja/ (ya) ‘him/her’, /oji/ (oyi) ‘cold’, /ojiji/ (oyiyi) ‘resemblance’

(ii) /w/ is a voiced labio-velar approximant. Examples:
/wa/ (wa) ‘split’, /iwe/ (iwe) ‘anger’, /were/ (were) ‘take’

Igbo Consonant Chart

MANNER OF ARTICULATION ↓	PLACE OF ARTICULATION								
	Bilabial	**Labio-dental**	**Alveolar**	**Post-alveolar**	**Palatal**	**Velar**	**Labio-velar**	**Labialized-velar**	**Glottal**
Plosive	p b		t d			k g	kp gb	kw gw	
Nasal	m		n		ɲ	ŋ		ŋw	
Fricative		f v	s z	ʃ		ɣ			ɦ
Affricate				ʧ ʤ					
Lateral			l						
Trill			r						
Approximant					j		w		

Fig. 1: Igbo Consonant Chart (Adapted from Ikekeọnwụ, Ezikeojiakụ, Ụbanị and Ugọjị 1999)

Igbo vowels

There are eight (8) phonemic vowels in Igbo. The vowels are /a e i ɪ o ɔ u ʊ/. They are all voiced. According to Ikekeọnwụ, Ezikeojiakụ, Ụbanị and Ugọjị (1999), the vowels are described using three basic terms which are: the height of the tongue in the part, the part of the tongue used in the production and the shape of the lips. They explained that the height of the tongue in the mouth during production is of four parts which are: close, close-mid, open-mid and open. The description of these vowels and examples of Igbo words where they occur are shown below:

(i) /a/ is an open front unrounded vowel. Word examples:
/aka/ (aka) 'hand', /aŋa/ (anya)'eyes', /akʊ/ (akụ) 'wealth'

(ii) /e/ is an open-mid front unronded vowel. Word examples are:
/elu/ (elu) 'up', /efere/ (efere)'plate', /eŋwe/ (enwe) 'monkey'

(iii) /i/ is a close front unrounded vowel. Word examples are:
/ire/ (ire)'tongue', /iko/ (iko)'cup', /ikike/ (ikike) 'authority'

(iv) /ɪ/ is a close-mid front unrounded vowel. Word examples are:
/ɪgʊ/ (ịgụ)'to read', /ahɪa/ (ahịa)'market', /ɪgba/ (ịgba) 'drum'

(v) /o/ is an open-mid back rounded vowel. Word examples are:
/oʧe/ (oche)'chair', /oke/ (oke)'male', /oroma/ (oroma) 'orange'

(vi) /ɔ/ is an open back rounded vowel. Word examples:
/ɔnʊ/ (ọnụ)‘mouth’, /ɔrʊ/ (ọrụ)‘work’, /ɔkʊkɔ/ (ọkụkọ) ‘chicken’

(vii) /u/ is a close back rounded vowel. Word examples are:
/ube/ (ube)‘pear’, /udude/ (udude) ‘earthworm’, /udo/ (udo) ‘peace’

(viii) /ʊ/ is a close-mid back rounded vowel. Word examples:
/ʊlɔ/ (ụlọ)‘house’, /ʊtʊtʊ/ (ụtụtụ)‘morning’, /azʊ/ (azụ) ‘fish’

Igbo Vowel Chart

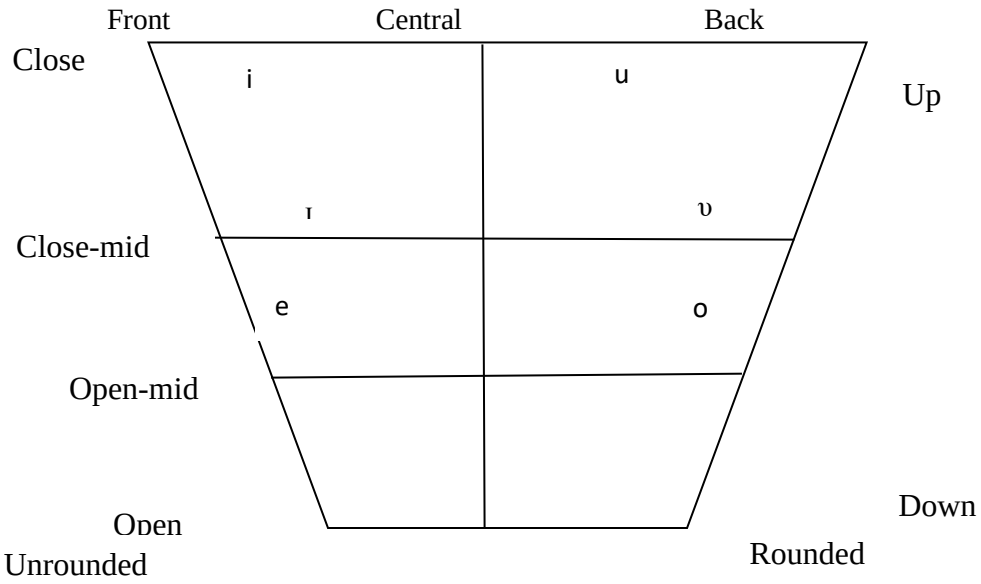

Fig. 2: Igbo Vowel Chart (Adapted from Ikekeọnwụ, Ezikeojiakụ, Ụbanị and Ugọjị 1999)

French speech sounds

The standard French has thirty-seven (37) phonemes, which comprises of twenty-one (21) consonants and sixteen (16) vowels.

French consonants
There are twenty-one (21) phonemic consonants in French which are: /p b t d k g m n ɲ f v s z ʃ ʒ ʁ lR j ɥw/. These consonants according to Carduner and Hagiwara (1982), are described using the source of the airstream (whether from the lungs - pulmonic or from other source - non-pulmonic), the state of vibration of the vocal folds (whether vibrating - voiced or not vibrating - voiceless), the place of articulation in the vocal tract (whether bilabial, dental, labio-dental, alveolar, post-alveolar, palatal, velar, uvular or glottal) and the manner of articulation (whether stop/plosive, fricative, nasal or liquid). The descriptions of these consonants and their word examples are shown below:

Plosives

There are six (6) plosives in the French consonant. These plosives are: /p b t d k g/. They occur at word initial, medial and final positions.
(i) /p/ is a voiceless bilabial plosive. Examples:
/pəti/ (petit) 'small', /aprɛ/ (après) 'after', /tip/ (type) 'kind'

(ii) /b/ is a voiced bilabial plosive. It occurs in word initial and medial positions, butdo not occur in word final positions. Examples:
/blã/ (blanc) 'white', /tabu/ (tabou) 'taboo', /tɔ̃b/ (tombe) 'tomb'

(iii) /t/: is a voiceless alveolar plosive. It occurs in word initial and medial positions, but do not occur in word final position.Examples:
/tabl/ (table) 'table', /bato/ (bateau) 'ship', /ɛst/ (est) 'is'

(iv) /d/ is a voiced alveolar plosive. It occurs in word initial and medial positions, but do not occur in word final position. Examples:
/dǿ/ (deux) 'two', /pedal/ (pédale) 'pedal', /gʁɑ̃d/ (grande) 'big'

(v) /k/: is a voiceless velar plosive. It occurs at word initial and final positions, but do not occur at word final positions. Examples:
/ku/ (cou) 'neck', /sak/ (sac) 'bag', /boku/ (beaucoup) 'much'

(vi) /g/ is a voiced velar plosive. Examples:
/gaRd/ (garde) 'gaurd', /bag/ (bague) 'ring', /vag/ (vague) 'wave'

Nasals
There are three (3) nasals in the French consonant. These nasals are: /m nɲ/. They are all voiced. /m/ and /n/ occur at word initial, medial and final positions but /ɲ/ occurs only at word medial and final positions.
(i) /m/ is a voiced bilabial nasal. Examples:
/mwa/ (moi) 'me', /ami/ (ami) 'friend', /mɛm/ (même) 'same'

(ii) /n/ is a voiced alveolar nasal. Examples:
/ne/ (nez) 'neck', /pɛn/ (peine) 'sadness', /yn/ (une) 'a'

(iii) /ɲ/ is a voiced palatal nasal. Examples:
/pwaɲɛ/ (poignet) 'wrist', /aɲo/ (agneau) 'lamb', /liɲ/ (ligne) 'line'

Fricatives
There are seven (7) fricatives in the French consonant. These fricatives are: /f v s z ʃ ʒ ʁ/. They occur at word initial, medial and final positions.
(i) /f / is a voiceless labio-dental fricative. Examples:
/fij/ (fille) 'girl', /ɑ̃fɛ̃/ (enfin) 'finally', /nœf/ (neuf) 'nine'

(ii) /v/ is a voiced labio-dental fricative. Examples:
/vwatyʁ/ (voiture) 'car', /avɛk/ (avec) 'with', /aʁiv/ (arrive) 'arrived'

(iii) /s/ is a voiceless alveolar fricative. Examples:
/stilo/ (stylo) 'pen', /klas/ (classe) 'class', /plas/ (place) 'square'

(iv) /z/ is a voiced alveolar fricative. Examples:
/zebʁ/ (zèbre) 'zebra', /ɛz/ '(aise) 'easy', /kɛ̃z/ (quinze) 'fifteen'

(v) /ʃ/ is a voiceless post-alveolar fricative. Examples:
/ʃəmiz/ (chemise) 'shirt', /ʁəʃɛʁʃ/ (recherche) 'research', /ʃɛf/ (chef) 'chief'

(vi) /ʒ/ is a voiced velar fricative. Examples:
/ʒãʁ/ (genre) ‘gender’, /aʒ/ (age) ‘age’, /deʒa/ (déjà) ‘already’

(vii) /ʁ/ is a voiceless velar fricative. Examples:
/tʁɛ/ (très) ‘very’, /mɛtʁ/ (mettre) ‘ to put’, /seʁa/ (sera) ‘will be’

Lateral
There is only one (1) lateral in the French consonant. This lateral sound is /l/. It occurs at word initial, medial and final positions.
(i) /l/ is a voiced alveolar lateral. Examples:
/livʁ/ (livre) ‘book’, /bɛl/ (belle) ‘beautiful’, /səlɥi/ (celui) ‘the one’

Trill
There is only one (1) trill in the French consonant. This trill sound is /R/. It occurs at word initial, medial and final positions.
(ii) /R/ is a voiced uvular trill. Examples:
/Ri/ (rit) ‘laugh’, /paRi/ (Paris) ‘Paris’, /vɑ̃dR/ (vendre) ‘sale’

Approximant
There are three (3) approximants in the French consonant. These approximant sounds are /j ɥ w/. /j/ occurs at word initial, medial and final positions, while /w/ and /ɥ/ occur only at word initial and medial positions.
(i) /j/ is a voiced palatal-spread approximant. Examples:
/jo/ (yeux) ‘eyes’, /djo/ (dieu) ‘god’, /fij/ (fille) ‘daughter’

(ii) /w/ is a voiced labio-velar approximant. Examples:
/wi/ (oui) ‘yes’, /wɛst/ (ouest) ‘west’, /netwaje/ (nettoyer) ‘to clean’

(iii) /ɥ/ is a voiced palatal-rounded approximant. Examples:
/ɥil/ (huile) ‘oil’, /nɥi/ (nuit) ‘night’, /lɥi/ (lui) ‘him’

French Consonant Chart

	PLACE OF ARTICULATION							
MANNER OF ARTICULATION ↓	**Bilabial**	**Labio-dental na eze**	**Alveolar**	**Post-alveolar**	**Palatal**	**Palatal rounded**	**Velar**	**Uvular**
Plosive	Pb		t d				k g	
Nasal	m		n		ɲ			
Fricative		f v	s z	ʃ ʒ			ʁ	
Lateral			l					
Trill								R
Approximant					j	ɥ	w	

Fig. 3: French Consonant Chart (Adapted from Carduner and Hagiwara 1982)

French vowels

There are sixteen (16) phonemic vowels in French. These vowels are /i e ɛ ɛ̃ a y ø œ œ̃ u o ɔ ɔ̃ɑ ɑ̃ ə/. They are all voiced. Carduner and Hagiwara (1982), described French vowels with reference to four criteria which are: the part of the tongue that is raised (front, center or back), the extent to which the tongue rises in the direction of the soft palate (high, high-mid, low-mid and low), the position of the velum (raised for oral vowels and lowered for nasal vowels) and the kind of opening made at the lips (rounded or spread). The description of these vowels and their examples in French words where they occur are shown below:

(i) /i/ is a front high oral spread vowel. Word examples:
/il/ (il) 'he', /li/ (lit)'bed', /fij/ (fille) 'daughter'

(ii) /e/ is a front high-mid oral spread vowel. Word examples are:
/ete/ (été) 'summer', /le/ (les)'the', /ekɔl/ (école) 'school'

(iii) /ɛ/ is a front low-mid oral spread vowel. Word examples are:
/bɛl/ (belle)'beautiful', /mɛtʁ/ (mettre)'to put', /tɛt/ (tête) 'head'

(iv) /ɛ̃/ is a front low-mid nasal spread vowel. Word examples are:
/pɛ̃s/ (pince)'clamp', /vɛ̃/ (vin)'', /vɛ̃/ (vingt) 'twenty'

(v) /a/ is a front low oral spread vowel. Word examples are:
/ma/ (ma)'my', /ami/ (ami)'friend', /ale/ (aller) 'to go'

(vi) /y/ is a front high oral rounded vowel. Word examples:
/yn/ (une)'a', /sykʁ/ (sucre)'sugar', /vy/ (vu) 'seen'

(vii) /ø/ is a front high-mid oral rounded vowel. Word examples are:
/nø/ (nœud)'node', /pø/ (peu) 'little', /vø/ (veux) 'want'

(viii) /œ/ is a front low-mid oral rounded vowel. Word examples:
/nœf/ (neuf)'nine', /sœl/ (seul)'only', /œj/ (œil) 'eye'

(ix) /œ̃/ is a front low-mid nasal rounded vowel. Word examples:
/œ̃/ (un) 'a', /brœ̃/ (brun)'brown', /ʃakœ̃/ (chacun) 'each'

(x) /u/ is a back high oral rounded vowel. Word examples are:
/tu/ (tout) 'everything', /du/ (doux)'soft', /u/ (où) 'where'

(xi) /o/ is a back high-mid oral rounded vowel. Word examples are:
/bo/ (beau)'handsome', /fo/ (faux)'fake', /rato/ (rateau) 'rake'

(xii) /ɔ/ is a back low-mid oral rounded vowel. Word examples are:
/sɔl/ (sol)'floor', /vɔg/ (vogue)'vogue', /ɔm/ (homme) 'man'

(xiii) /ɔ̃/ is a back low-mid nasal rounded vowel. Word examples are:
/bɔ̃/ (bon)'good', /fɔ̃/ (fond)'bottom', /mɔ̃d/ (monde) 'world'

(xiv) /ɑ/ is a back low oral unrounded vowel. Word examples:
/pɑ/ (pɑs)'not', /lɑ/ (lɑs)'tired', /tɑ/ (tɑs) 'heap'

(xv) /ɑ̃/ is a back low-mid nasal unrounded vowel. Word examples are:
/bɑ̃/ (banc)'bench', /gʁɑ̃d/ (grande) 'big', /dɑ̃/ (dans) 'in'

(xvi) /ə/ is a central vowel known as schwa. It is neither low nor high, neither front nor back, neither rounded nor spread. It is generally described as weak neutral sound in French and also regarded as 'e-muet' or 'muted e'. It is uttered in a position requiring minimum articulatory effort. Word examples:
/ʒə/ (je)'I', /pəti/ (petit)'little', /samədi/ (samedi) 'Saturday'

French Vowel Chart

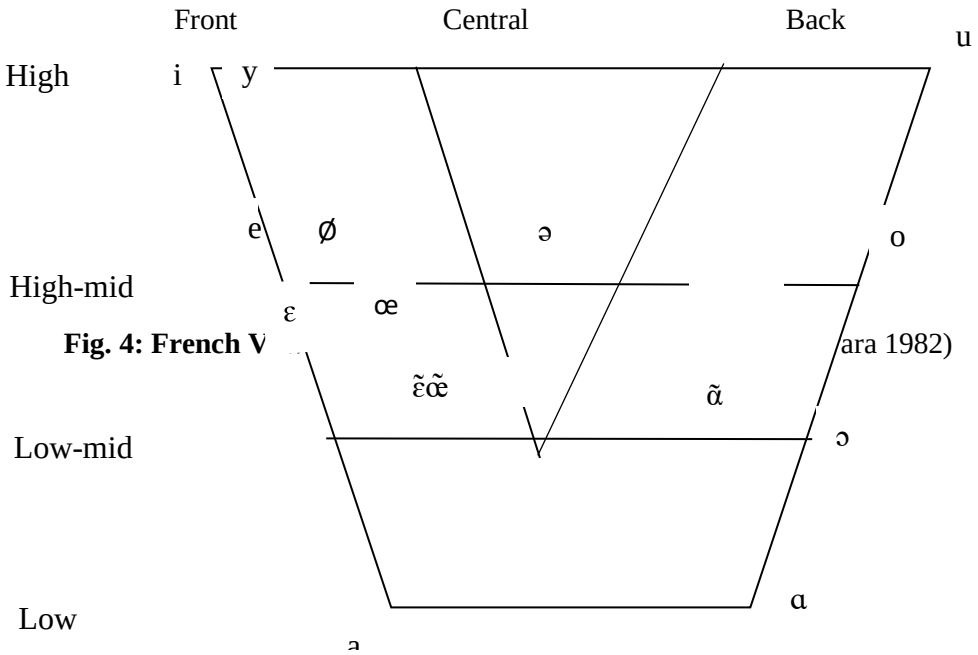

Fig. 4: French V ara 1982)

Discussion

The main focus of this study is to ascertain the similarities and differences between the speech sounds of Igbo and French. As earlier defined, contrastive analysis (CA) looks at studying two different languages, which in this case, a native and foreign language, to see where potential problems may arise. Having looked at the data presented above, the researchers observed that the similarities and differences between the speech sounds of the languages under review.

The Igbo phonemic inventory has thirty six (36) phonemes of which twenty eight (28) are consonants, while eight (8) are vowels. The French phonemic inventory has thirty seven phonemes of which twenty one (21) are consonants, while sixteen (16) are vowels. The Igbo and French phonemic inventories have sixteen (16) consonants and six (6) vowels in common. The consonants Igbo and French have in common are: the voiceless and voiced bilabial plosives /p b/, the voiceless and voiced alveolar plosives /t d/, the voiceless and voiced velar plosives /k g/, the voiced bilabial nasal /m/, the voiced alveolar nasal /n/, the voiced palatal nasal /ɲ/, the voiceless and voiced labio-dental fricatives /f v/, the voiceless and voiced alveolar fricatives /s z/, the voiceless post-alveolar fricative /ʃ/, the voiced alveolar lateral /l/ and the voiced palatal approximant /j/. The consonants /r/ and /w/ exist in both languages but with a difference in place of

articulation. In Igbo, /ɾ/ is realised as a voiced alveolar trill, whereas in French it is realised as a voiced uvular trill, having an allophone /ʁ/ which is realised as a voiceless velar fricative. In Igbo, /w/ is realised as a voiced labio-velar approximant, whereas in French, it is realised as a voiced velar approximant. The vowels Igbo and French have in common are: the high close/high vowel front /i/, the close-mid/high-mid front vowel /e/, the open/low front vowel /a/, the close-mid/high-mid back vowel /o/ and the close/high back vowel /u/. The back vowel /ɔ/ exists in both languages but it is realised differently. While in Igbo, it is realised as an open back vowel, in French, it is realised as a low-mid back vowel. These phonemes which both languages have in common are likely not to pose a threat to learners of each of the languages as they will easily transfer the pronunciation they have from their mother tongue to the target language.

The consonants in the Igbo phonemic inventory that are not in French are: the voiceless and voiced labio-velar plosives /kp gb/, the voiceless and the voiced labialized-velar plosives /kw gw/, the voiced palatal and labialized-velar nasals /ɲ ŋw/, the voiced velar and voiceless glottal fricatives /ɣ ɦ/ and the voiceless and voiced post-alveolar affricates /ʧ ʤ/. Also, the consonants in the French phonemic inventory that are not in Igbo are: the voiced post-alveolar and voiceless velar fricatives /ʒ ʁ/ and the voiced palatal rounded approximant /ɥ/. The vowels that exist in Igbo phonemic inventory but are not in French are: the front close down spread vowel /ɪ/ and the back close down rounded vowel /ʊ/. The vowels that exist in French that are not in Igbo are: the front low-mid oral spread vowel /ɛ/, the front high oral rounded vowel /y/, the front high-mid oral rounded vowel /ø/, the front low-mid oral rounded vowel /œ/, the central vowel /ə/, the back low oral unrounded vowel /ɑ/, the front low-mid nasal spread vowel /ɛ̃/, the front low-mid nasal rounded vowel /œ̃/, the back low-mid nasal unrounded vowel /ɑ̃/ and the back low-mid nasal rounded vowel /ɔ̃/. It is imperative to note that nasal vowels are phonemic in French whereas in Igbo, there is no such thing as nasal vowels. Also, French front vowels are both spread and rounded whereas in Igbo, all front vowels are spread.

Summary of findings

Having looked at the differences stated above, it is worthy to note that;

1. There is every tendency that Igbo learners of French would have difficulty in the learning and pronunciation of words containing these phonemes that are lacking in their phonemic inventory, which will lead them to substituting these phonemes that they lack with the ones they have which are closely related in terms of articulation to the ones they lack and in the long run, learners will keep producing inaccurate words and stick to them.

2. French learners of Igbo will also find it difficult learning and pronouncing words containing the phonemes which are not in their phonemic inventory. This difficulty may lead to lack of interest in in the learning of the language as words containing these unfamiliar phonemes will always pose a threat to the learners.

3. Teachers of both languages who are not familiar with the phonemic inventories of both languages and their sounding will equally have difficulty teaching these languages as they will give off inaccurate pronunciations.

Recommendations

Based on the findings of this study, the following recommendations are made:

1. Teachers of foreign languages should as a matter importance acquire and start language teaching from the sound level, maintaining focus on their positions of occurrence in words while adopting repetition and articulatory phonetic transcription exercises while teaching to help learners master both familiar and unfamiliar sounds, by so doing, pronunciation errors will be prevented.

2. Second language learners should lay more emphasis on learning of sounds and their correct articulations rather than words. The sound level is the foundation of language learning. The sounds which are not familiar, that is, sounds that are not existent in a learner's mother tongue should be given more attention. Learners should expose and involve themselves in the articulatory processes involved in the production of these sounds till they are familiar with them.
3. The second language teaching and learning style which starts from conjugation of verbs as is the case of French and pronunciation of words as is the case of Igbo, should be done away with as this style has overtime proven not to be productive.

Conclusion

This research work has contrastively looked at the speech sounds of Igbo and French with emphasis on their similarities and differences. As Corder (1967) clearly stated, contrastive analysis is indispensable for the learner as a way to test his hypotheses about the nature of the language he is learning, for telling the teacher how far towards the goal the learner has progressed and what remains for him to learn, and for providing the researcher with evidence as to how language is learned and acquired as well as what strategies or procedures the learner is using. Contrastive analysis has helped us in predicting and explaining difficulties Igbo learners of French and French learners of Igbo would encounter in learning their target language and what learners and teachers should do in order to overcome these difficulties. We are of the view that if our recommendations are adopted and used in language teaching and learning, difficulties encountered in second language learning will be eradicated.

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