LEARNING ENGLISH CONSONANTS: THE PHONOLOGICAL PROBLEMS OF IBIBIO - ENGLISH BILINGUALS

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Abstract
This research sets out to investigate phonological problems Ibibio learners and users of English encounter in their day usage of English. To carry out this research, a set of (80) eighty test items was administered to (100) one hundred informants selected from four secondary schools in Uyo and the University of Uyo. All the informants were Ibibio bilinguals. The data for the study were based on English consonants, with a bid to measure the informants' understanding of the correct pronunciation of each. Special attention was put in the assessment of the distribution in permitted or possible word initial, word medial, and word final consonant clusters. It also looks at similarities and differences between the two languages, analyzes and discusses the findings to indicate phonological problems Ibibio learners and users of English encounter as bilinguals using English consonants. The investigations revealed that there are significant differences and similarities between Ibibio and English sounds systems, and sounds combinations as it has to do with English consonants. The study shows that initial clusters of consonants in Ibibio do not exceed two sequences, whereas English permits a three member sequence word initially, and four, member sequence word finally. From the result, we conclude that Ibibio bilinguals have problems with pronunciation of English consonants. It becomes necessary therefore for teachers of the subject, particularly experts in phonology to intensify effort to help the Ibibio English bilinguals to solve their pronunciation problems. Government too should encourage more researches in language study.

Universally, human beings employ certain speech sounds in their different languages. These speech sounds: consonants and vowels differ from language to language. Generally, users of English in a second language situation such as in Nigeria, exhibit variations from the norm which may be phonological, syntactic or lexicosemantic.

English is used in Nigeria as the language of education, commerce, among others and it is necessary for the Ibibio speakers of English to speak a variety that is both nationally and internationally intelligible. International and national intelligibility may be said to be most threatened in Ibibio English. At the level of phonology, Ibibio lacks certain English sounds and this poses problems in the pronunciation of many English words. Also, phonological problems may result in semantic problems which may hinder effective communication in English. The variation of segments has a significant impact on the Ibibio-English bilinguals who, owing to the less number of consonant and vowel sounds of his L_1, may tend to perform poorly in the combination and articulation of English sounds. Eka, (1996 p. 45) observes that the situation results in impossible combinations.

Just to restate the problem, the Ibibio learners and users of English tend to articulate the words from the point of view of the existing letters of the Ibibio alphabet.

Ibibio Consonants

Traditionally, consonants may be grouped into two in the first instance, taking into account the state of the glottis – whether there is vibration or there is no vibration of the vocal cords at the time of production. Vibration of the vocal cords lead to production of voiced consonants, absence of the vibration of vocal cords lead to voicelessness. Consonants can also be grouped according to place and manner of articulation. Ibibio has fifteen phonemic consonants, ten of which are stops, six oral and four nasal, two fricative and three approximants. (Essien, 1990, p.7) p, b, t, d, k, kp, ɱ, m, ɲ, ŋ, n, f, s, y, w, /.

Ibibio Consonant: Description

Ibibio consonants may be described under manner of articulation and place of articulation.

Oral stops (plosive):

/p/ is a voiceless bilabial stop

As in: dep /dép/ - buy
deppe /dép-pé/ - not buying

/b/ is a voiced bilabial stop (plosive)

As in: been /bén/ - take
ebe /ébé/ - husbuand
ibaba /ìbábá/ - (a kind of fruit used thickening soup.)

/t/ is a voiceless dental plosive as in:

top /tóp/ - throw
etop/étòp/ - message
sat /sàt/ - select

/d/is a voiced alveolar plosive as in:
do /dɔ/ - marry
udon /ʊ́dɔŋ/ - urge

/k/ is a voiceless velar plosive as in:
kaa /kàá - go
eka /èkà - mother
nkanika /ňkáníká/ - clock /bell

/kp/ is a voiceless labial-velar plosive as in:
kpan /kpáŋ/ - fold
ekpan /èkpán/ - suicide

/m/ is a bilabial nasal as in:
mia /miá - beat
ima /imá/ - love
mbom /mbóm/ - pity

/ɱ/ is a labio dental nasal as in:
mfon /mfɔn/ - grace

/n/ as an alveolar nasal as in:
no /nɔ/ - give
unen /ùnén/ - right

/ɲ/ is a palate nasal as in:
ndo /ndó/ - marriage
nnuun /núún/ - finger

/ŋ/ is a velar nasal as in:
inan /inàŋ/ - four
n-jon /n-jɔn/ - personal name

/ŋw/ -nm is a labia-velar nasal as in:

nwwa /ŋnwa/ - feather
nwnwa /ŋwnwa/ - second daughter

/ŋm/ as in:
ŋmkpo /ŋmkpó/ - thing
ŋmkpan /ŋmkpaň/ - scar

Fricatives
/β/ is a voiceless bilabial fricative as in:
tobo /tobo/ - tie

/f/ is a voiceless labio dental fricative as in:
feen /feen - forgive
mfin /mfín/ - today

/s/ is a voiceless alveolar fricative as in:
sin /sín/ - put
usan /ùsàn/ - plate

Approximants:
/j/ is a palatal approximant as in:
yem /yém/ - look for
uyai /ùyài/ - beauty

/w/ is a labio velar approximant as in:
wan /wáŋ/ - wrap
uwa /úwá/ - sacrifice

/ʁ/ is a voiced uvular approximant as in:
feʁe /féʁȅ/ - run

Trill:
/R/ is a voiced uvular trill as in:

bɔRɔ /bɔRɔ/ - overtake

fʌʀɔ /fʌʀɔ/ - be sad

Tap:

/r/ is alveolar tap as in:

bara /bárá/ - make fire

fro /fró/ - jump

These consonants are indicated in the chart below:

Place of Articulation

Manner of Articulation	Bilabial	Labio Dental	Dental Alveolar	Palatal	Labio velar	Velar	uvular
Stops or plosive	vl vd p b	vl vd	vl vd t d	vl v d	vl vd kp	vl vd k	vl vd
Implosives of frication		F	s				
Nasals	m		n	ɲ		ŋ	
Approximants or semi vowels				y	w		ʁ

Ibibio Consonants Chart: (Essien, 1990. p.66)

Ibibio Consonant Clusters and Distribution

The following consonants sounds are used to show possible consonant combinations and distributions in Ibibio. Consonant clusters at word initial, medial and final word positions.

/m, ŋ, d, kp, k, n, s, b, t/

/m/ is a bilabial nasal and are realized in initial, medial and final positions of words in Ibibio as in:

mbaŋ /mbáŋ/ - chick
ami /àmi/ - I
imam /imaḿ/ - laughter

/ŋ/ is a velar nasal and are legalized in all word positions as in:

nka /ŋka/ - association
sanga /sâňa/ - walk
inan /inàň/ - four

/d/ is a dental alveolar plosive and can occur in all word positions as in:

dep /dép/ - buy
udon /údɔň/ - desire
dibbe /díbbé - hide one self

/kp/ is a labio velar plosive and can occur in all word positions, as in:

ekpe /ékpé/ - lion
kpeiye /kpéiyé/ - beg
isikpe /ìsìkpè/ - payment from time to time.

/n/ is an alveolar nasal and can occur in all word positions as in:

nsia /nsià/ - intestine
ban /bán/ - sharpen
ubuene /úbúené/ - poverty

/s/ is an alveolar fricative and can occur in the initial and medial positions of words, as in:

sak /sák/ - laugh
nsu /nsù/ - false hood

/b/ is a bilabial plosive and can occur in all word positions as in:

bat /bát/ - count
iba /ìbá/ - pant
dib /díb - hid

/t/ is an alveolar plosive and can occur in all word positions as in:

tuuk /túúk/ - touch
ukut /úkút/ - misfortune
item /ítêm/ - advice

Considering the above distributed sounds, a learner of this language must master not only the production and perception of these sounds, but must take into account when these sound can be used. This is so because there is existence of actual and potential words in all languages. There are some impossible word combinations which occur in word formation, some words cannot form a cluster either at initial, medial or final word position – some consonant pose some constraints depending on the other sound which they combine.

However, in Ibibio /f,s,r/ cannot be represented word finally, /p/ can be represented word finally but not initially. Any attempt to do would result only in potential words like <u>naf</u>, <u>bos</u>, <u>mar</u>, <u>pa</u>, etc.

Also /n/ occurs as /n/ in nsek, and /ŋ/ in nkan. The other sounds operate in terms of the orthography. Notice is taken that /m, n, ŋ/ can occur with other classes of consonants word initially especially with plosives and fricatives as in:

mb – mbat /mbat/ - dirt
mf – mfana /mfina/ -trouble
mkp- mkpasi /mkpasi/ - seed

Nevertheless, at this position, there is a restriction on /ŋ, n, l, k, r, t,/ and so there are no cluster such as <u>mn</u>, <u>ml</u>, <u>mn</u>, <u>mr</u>, <u>mt</u>, etc. in Ibibio. Its alveolar counterpart /n/ can enter into the following combination at initial positions:

nt - ntuen /ntùen/ - pepper
ns - nsim /nsìm/ - tail
nd - ndo/ndó/ - scar
ny - nyak /nyàk/ - leave me

There is a constraint where /r, p, b, m, ŋ/ are involved even though /n/ is as flexible as /m/.

The velar nasal /ŋ/ can occur initially as:

nkw - nkwaña /ñkwáñá/ - crooked
nw - ñwed /ñwèd/ - book
nk - ñkoñ /ñkɔñ/ - leaf.

Generally, /ñ/ cannot cluster with the plosive /p, t, d, b/ and does not occur word initially with any known Ibibio vowel.

The stop fricative clusters are not very popular in Ibibio, we noticed that /b, p, t, s/ cannot be followed by another consonants at initial positions. They can only be preceded by a nasal consonant at these positions

mbuk /mbùk/ - news
ntuen /ntùèn - pepper
nsek /nsék/ - premature

For the Ibibio velar plosive /kp/, we noticed that by virtue of its composition it cannot occur with other consonants word initially and word finally. They are rather restricted plosive and cannot combine with fricatives, liquids or semi vowels.

At word final position /k, p, m, t, ŋ, b, n/ can occur in closed syllabus as individual sounds as in:

bop /bɔp/ -tie up
mum /mùm/ -hold
tat /tát/ - open
nkan /nkâñ/ - ribs

nnan /nnàn/ - blindness

The bilabial plosive /b/ disagrees with /p/ in the sense that it can begin and end the same word as in: bɔb, but /p/ cannot. Some clusters could be possible at medial position although only at morpheme junctures. Examples:

ben di - bring it
yak nim- leave it
sik san - shift

We could extract the cluster nd, kn, and ks from the above illustrations. These are only possible combination word medially and finally.

Place of Articulation

Manner of articulation	**Bilabial**	**Labio Dental**	**Detal**	**Alveolar**	**Palatal Alveolar**	**Palatal**	**Velar**	**Global**
Plosives	p, b			t, d			k, g	
Affricates					ʧ dʒ tr dr			
Fricatives		f v	θ ð	s z	ʃ ʒ			h
nasals	m			n			ŋ	
Laterals				l				
semivowels	w					j		
rolls				r				

Gimson 1980:15 (English consonant chart)

English Consonants

English has twenty four consonants, fifteen of these are voiced, nine are voiceless. The voiceless include: /p, t, k, f, θ, ʧ, s, ʃ, h/.
The voiced include /b, d, g, r, ð, z, ʒ, ʤ, m, n, ŋ, l, w/
/p/ is an alveolar plosive as in punish. /pʌniʃ/
/t/ is a alveolar plosive as in time/taım/
/k/ is a velar plosive as in come /kʌm/
/ʧ/ is a palato alveolar affricate as in chain /ʧeın/
/f/ is a labio-dental fricative as in defend /dıfend/
/θ/ is a dental fricative as in think /θiŋk/
/s/ is an alveolar fricative as in miss /mıs/
/ʃ/ is a palato-alveolar fricative as in cash /kæʃ/
/h/ is a glottal fricative as in high /haı/

The voiced consonants are:
/b/ is a bilabial plosive as in: buy /baı/
/d/ is a alveolar plosive as in ready /redı/
/g/ is velar plosive as in gum /gʌm/
/ʤ/ is a palato-alveolar affricate as in judge /ʤʌʤ/
/ð/ is a dental fricative as in then /ðen/
/z/ is an alveolar fricative as in zone /zəum/
/ʒ/ is a palato alveolar fricative, as in beige /beıʒ/
/l/ is an alveolar lateral as in fall /fɔ:l/
/r/ is a post-alveolar rolled as in rain /reın/
/m/ is a bilabial nasal as in came /keım/
/n/ is an alveolar nasal as in; none /nʌn/
/ŋ/ is a velar nasal as in tongue /tʌŋ/
/j/ is a palatal semi vowel as in wood /jʌŋ/
/w/ is a velar semi vowel as in wood /wud/

English Consonant Clusters

In English, especially when looking at the distribution equivalence which is used to describe a situation in which two or more items within the phonological rank scale occur in the same range of context for example; the sounds /ɪ, a:, ɔ, u, ɜ:/ can occur word initially, word medially and word finally as the examples below:

eel	feed	fee
art	card	car
order	port	straw
ooze	pool	two
early	bird	stir

The five sounds are in distributional equivalence since they all have equal privilege of occurrence in all word positions. There can however be a constraint or restriction on the equivalence if for instance, we decide to pair up the five sounds word initially with those medially and finally. In that case, it would appear more appropriate to refer to *two, art, port* for instance as entering into restricted or constrained distributional equivalence. The explanation for this is that the length of /u:/ in *two* (CV syllable) is affected by the first sound /t/, the length of /ɔ:/ in *port* (CVC syllable) is affected by both /p/ and/t/.

English consonants used here include /s, k, ð, p, t, f, b, θ, z, d/

A great majority of English sounds however can occur in all positions and some can also occur initially without restrictions.

Word Initial Clusters

It is revealed from this study that, the combinational possibilities of the affricates are more restricted than those of simple stops. At initial positions affricates cannot form clusters with any other consonants where a simple stop /s/ for instance, can be followed by at least a /t/; as in *stream* /stri:m/.

Moreso, the phoneme /t/ is not as frequent in distribution as /s/ which can occur with the other consonants in initial allowed sequences. The following three initial sequences are common in English: [str] – strick, [skr] – scrape [spl] – splash, [skw] – squeeze, [spr] – spring, [spu] – spurious, [ski] – skew.

Apart from the three member cluster shown above, there are also two consonant initial clusters involving the English /s/ as in: [sp] - speak, [sl] – slap, [sk] – skip, [sn] – snore, [st] – stick, [sm] – smell, [sw] – sweet.

It can be seen from above examples that /s/ clusters whether final or initial consist of a stop /p, t, or k/ proceeded by /s/.

The various /s/ initial sequences discussed above can be summarized thus:
Fricative + Nasal – small /snail: sm/ sn
Fricative + Plosive /p/ + liquid /l – r/: spleen/ spring: spl/spr.

In spite of its flexibility, some /s/ cluster are not possible in English. Cerstrictions occur in the fricative clusters: sf, su and in fricative plus plosive liquid cluster [skl]

These clusters are difficult to pronounce even though their constituent consonants are familiar. That is why they are no [su, sdz, sb, sd, sz, sf] cluster words initially in English.

It is observed that the voiceless labio dental fricative /f/ is capable of displaying only a limited number of cluster: [fl] – flip /flɪp/, [fj] – fuse /fju:z/, [fr] – frown /fraun/.

The /f/ sound cannot be classified with either nasal or plosive /b, d, g/.

The plosive /p, b, k/ and /t, d/ occur and contrast in their choice of liquids as in the following examples:

The /p/ phoneme combines freely with /l, r/: [pl] - play, [pr] – pray.

/b/ combines with /j, r, l/ as in: [bj] – beauty, [br] – brim, [bl] – black,

/k/combines with /l, r/ as in: [kl] – class, [kr] – grass.

The sound /t-d/ tends to discriminate in their choice of liquids.

Generally, they cannot occur with other classes of consonants. At initial positions /t, d/ can only combine with /r/ tr, dr as in these examples, *train*, *drew*. In English /td, dl/ initial clusters do not exist. /m/ and /n/ can combine to form actual clusters as in: [mj] – music /mju:zik/, [nj] – new /nju:/, but not with other consonants.

Cluster involving the voiceless dental fricatives /θ/ are relatively few in English especially word initially.

Nevertheless, a three member sequence is possible word initially as in:

thr - thrill - /θri:l/, thw - thwart - /θwɔ:t/

No initial clusters are possible with /z/ for instances, English does not have any <u>zr,</u> <u>zs,</u> <u>zb,</u> <u>zt,</u> <u>zd,</u> clusters. The /z/ sound is a highly restricted consonant word initially unlike its voiceless counterpart /s/.

From phonetic content of lexical items discussed above, it is obvious that between the fricatives /s/ and /f/ there is a considerable degree of differences in occurrence. With the exception of few impossible clusters involving the affricates, /s/ can occur with almost all classes of consonants, and whereas /f/ can take both /l/ and /r/ initially: *fly*, *fry*, /s/ is restricted to /l/ as in *sleep*.

Word Final Clusters

In final consonants clusters combination, the nasals /m, n, ŋ/ vary considerably in their manner of clustering word finally, specifically /m/ is revealed to be more flexible that other nasals even word finally.

The sequence below illustrate this:

[mpt] - contempt, [mpl] - ample, [mpt] - attempt, [mbl] - tremble,

[ms] - items

As can be easily observed, at the final position, /m/ is capable of exhibiting as many as four and as little as two. It is also seen that it has a high combinational possibilities as it combines freely with plosives and fricatives. However, there is a restriction where the fricative /f/ occurs. Also, it cannot combine with affricates, liquids, semi vowels and other nasals word finally.

Its counterpart /n/ can display a four as well as two member sequence. These are examples:

[nslz] - Pencils, [ndlz] - spindles, [nts] - pints, [nθs] months

[ndθ] - thousandth, [nt] – pint, [nz]- signs, [nd] – bound, [nθ] – tenth.

From the above sequence it is obvious that /n/ combines more freely with dental sounds (/t, d, θ/) than with bilabials (/b, p/). It cannot form a final cluster with the fricative /f/. The reason being that the production of /m/ is particularly liable to be affected by the following consonants, for example when followed by /f/, /n/ cannot make a post alveolar contact. This often results in a constraint.

The velar nasal /n/ exhibits a noticeable number of final cluster ranging between four and two: as in the examples below:

[ŋktd]- banked, [ŋklz] - uncles, [ŋglz] - bangles, [ŋks] - banks,
[ŋkl - ankle, [ŋgl] - angle, [nk]- pink,

Its combination possibilities are more regular than those of other classes of consonant, with the exception of /s/. There is restriction with bilabials, alveolar and dental consonants.

Concerning the dental plosive /t, d/, they vary slightly in their distributional pattern from observations here. The voiceless sound /t/ has limited occurrence word finally, whereas its voiced counterpart /d/ occur more frequently.

At the final position /t/ clusters with the fricative /s/ and the lateral /l/ as in: ts – *cats*, tl – *bottle*.

Word finally /t/ does not form cluster with /r/ or any other consonants outside those shown above as the infected word for example, bottles may result in a three member cluster such as;

tlz - bottles /bɔtlz/

Possible final cluster of the /d/ sound are presented below as:

dst	-	midst
dlz	-	saddles
dn	-	burden

Word finally /d/ sound does not combine with other consonants in English.

The velar pair /k, g/ show different sequences of combination word finally, /k/ cannot form any clusters with the gliding consonant /r/, affricates, nasals and fricative except /s/

[ksθs]- sixths, [ksts]- texts, [kld]- buckled, [klz]- buckles, [kts]- acts, [ks]- backs

Combination involving its voice counterpart /g/ includes the following:

[gz] - dogs, [gd] - bagged, [gl] - burgle

/k/ cannot combine with voiced consonants except /l/. /g/ cannot form cluster with voiceless consonants. Both /k/ and /g/ do not cluster with /r/. /g/ cannot cluster with /r/, but /g/ is possible in an open syllable such as [gr] angry /æŋgrɪ/.

There seems to be an opposition between /k/ and /g/ in their choice of final consonants cluster.

The distributional pattern of the fricatives /s/ and /ð/ differ in certain respects at final word position. The /s/ cluster are somewhat predictable since they consist of a stop /p, t/ or /d/ preceded by /s/. In this connection, it is to be noted that the /s/ phoneme has relatively high frequency of word final occurrence. /s/ is the first compulsory element of the (CCC) clusters, followed by a stop or nasal then a liquid or a stop as in:

[stlz] - pistols, [slz] - muscles, [snt] - recent, [sts] - nests, [sks]- asks, [sps] - graps, [sns]- license, [snz] - listens

As shown above, the fricative stop clusters are particularly sensitive to the nature of adjacent sound. /s/ forms cluster more easily with simple stops and tends to discriminate in its choice of liquids so much that there are no [sr] cluster even word initially. The restriction to the formation as shown above is because of the presence of /s/. However, as a flexible consonants it forms clusters with both voiceless and voiced consonants.

Final clusters involving the voiced fricative /ð/ include:

[ðmz] - rhythms, [ðl] - betrothal, [ðz] - cloths

It combines with nasals voiced sounds and sometimes due to pronunciation defect it can be elided when followed by /z/ as in clothes /kləuz/.

At final position /p/ is a very rigid consonant. It is limited in occurrence and depends a lot on inflectional suffixes and some forms of concord:

[pts] – opts, [plz] - apples, [ps] - cups, [pt]- erupt, [pl]- ripple.

It occur with voiced and voiceless consonants but there are restriction where /r, b, d/ occur.

Generally, it is observed that final cluster of plosives /t, d, k, p, b, g/ represent a suffixed morpheme which may occur in these forms: <u>takes,</u> <u>kicked, rests</u> and <u>maps</u>.

Similarities and Different Between Clusters in Ibibio and English

From this study, it is observed that both Ibibio and English employ voiceless and voiced consonants in their sound inventories. These sound occur in the two language /p, b, t, d, k, f, s, m, n, ŋ, w, h/ but the way these sounds are organized to form word differ in the two languages too.

In Ibibio for instance, the voiceless and voiced plosive /p, b/ cannot be followed by other consonants at initial positions and they occur in free variation as in dep /dep/ - buy. In English /p, b/ are distinct phonemes that carry distinctive implications. These sounds can combine with liquids at initial position as in:

plan - /plæn/, prick /prɷk/,
bloom - /blu:m/, broom /bru:m/

The alveolar plosive /k/ occurs initially in Ibibio and English. In Ibibio it cannot combine with another consonant but in English /k/ can, as in as *crash* and *clash.*

The alveolar plosive /t, d/ also exist in free variation in Ibibio, as in *edet* - /eded/ (teeth). At initial positions these sounds cannot combine with any class of consonants. In English /t, d/ can cluster with /r/ as in *try*, and *dry*.

There are no /tl of dl/ cluster in English.

In Ibibio, the fricatives /f, s/ cannot occur with other consonants at initial position, but in English /f/ can cluster with /l/ and /r/ as in *flash* and *fresh*.

/s/ can combine with a range of initial clusters as /p, t, k, l/ to form <u>sp</u>, <u>st</u>, [<u>sk</u>], [<u>sl</u>], cluster. However, [sd], [sz], [sb], or [sg] are not present in English.

The nasals are the only consonants in Ibibio that are capable of exhibiting initial clusters, especially with plosive: as in:

mb	-	mbok
/mbɔk/	-	please
nd	-	ndik
/ndík/	-	fear
ŋk	-	nkan
/ŋkân/	-	ribs.

There are not known cases of initial nasal clusters in English. Cluster involving nasals only occur at morpheme junctions as in [mpl] – ample /Φmpl/, [ngl] – English /ɪnglɪʃ/. Semivowel /h/ does not begin a word in Ibibio, neither does it form a cluster. But in English it can combine with /ʃ/ as in *humility* /hju:mɪlɪtɪ/.

Most words in Ibibio begin with vowels, in English they begin with consonants. The following consonant are largely peculiar to English /g, v, θ, ð, z, r, ʃ, ʒ, l, h, ʤ/. The velar plosive /k, g/ occur in English but only /k/ is popular in Ibibio. In English, /g/ can form consonant cluster at initial positions with liquid, as in [gl] - *glide*, [gr] – *grind*. There is a consonant where other consonants occur. The sounds /v, ð, r, l/ cannot form cluster at initial positions in English, but /l/ may be preceded by a number of plosives as in:

bl	- blood,	kl	-	clap
pl	- play,	gl	-	glass

There is opposition between /l/ and the fricatives. The fricatives /f, v/ are present in English. But at initial positions, /f/ occur mainly with liquids: *flee* /fli:/ and *free* /fri:/. Concerning the fricatives /θ/ and /ð/ and combine with /r/ word initial as in: thrust /θrʌst/. But /ð/ cannot form a cluster this position. /z, ʃ, ʒ/ occur in English, and while /ʃ/ can form cluster with /r/ as in *shred*, /z/ and /ʒ/ are incapable of combining with other consonants.

/z/ for example can only combine with vowels as in *zoo*, *zeal*, *zone*, *zero*, it occurs at syllable point as in *zigzag*. The following consonant sounds do not occur in English: /kp, kw, nk, ʁ/. In Ibibio /kp/ is realized as one sound, but in English it is realized as /k/ and /p/. The /kp/ phonemes in Ibibio can be preceeded by nasal consonants [mkp] – *mkpo* – (something). In Ibibio, final stop are unreleased resulting in the weakening of /r/ to /ɾ/. It cannot begin or end a word. It occurs inter vocalically as in akworo iko /akwoɾiko/ (preacher). Another sound which is peculiar to Ibibio is /ʁ/. It is a sound adopted from English /g/. the sound /ʁ/ has undergone the process of weakening of final stops in Ibibio. Examples, ufok-ibok /ufɔʁibɔk/ hospital.

The semi vowel /j/ does not occur in Ibibio, its counterpart /y/ occurs but cannot form a cluster word medially or finally.

Generally, it is observed that whereas English allows consonant clusters of three sequences word initially, [str], [spl], Ibibio rarely have a cluster of more than two initial sequences: [nd], [nk], [mb].

The English /ŋ/ does not occur initially after /i:, ɔ, u:, ə/. Only nasal clusters are common to Ibibio among other consonants. The sound which occur both in English and Ibibio are more liberally distributed in English, than in Ibibio. This seems to explain why some sound which occur as separate phonemes in English tend to occur in free variation in Ibibio. More so, initial clusters in English are often derived by inflectional changes involving word roots. Initial sequences like /km, kf/ are very rare in English.

With regard to final clusters in Ibibio and English, this study has revealed that even when Ibibio consonant sounds appear to pose values similar to those of English, their distributional pattern are often different. It is observable that /k, m, t, p, f, n, r, ŋ, s/ which also occur in English cannot form clusters with other consonants of any known class in Ibibio. The type of flexibility which exists in English is lacking in Ibibio. This may be accounted for in the sense that most Ibibio word begin with vowels. More so, there is always VCV structures *yak* /yΦk/ (leave it), eto /étó/ tree.

The segments /s/ and /f/ do occur word finally in Ibibio, even though they experience the kind of restriction that is applicable to English. In English /s/ exhibits four sequences at final positions as in [mpts] - /prompts/, but not so in Ibibio final word position.

The velar plosive /k,g/ are more liberally distributed than dental plosive /t, d/ or bilabials plosives /p, b/. Very few final clusters of the /b/ sequence are known to occur in English as in: [bt] - mobbed /mɔbt/, [bl] - able /æbl/, [ps] - cups/ kʌps/.

Data Analysis and Results

Test on consonant sounds was to test the informants' ability to recognize and realize consonant sounds appropriately as was distributed in given words. The test consisted of thirty sounds segments distributed into thirty test items. The sound tested include voiced and voiceless consonants /θ, p, f, v, g, z, ʤ, ʒ, l, ð/.

The lexical items were structured to reflect consonant combinations at initial medial and final word positions in English. These words have the sounds tested as was administered on the informants.

/θ/	as in thank /θæŋk/
/p/	as in pap /pæp/
/f/	as in refuse /refjus/
/v/	as in revive /rɪvaɪv/
/g/	as in good /kud/
/z/	as in zeal /zi:l/
/dʒ/	as in village /vɪlɪdʒ/
/ʒ/	as in pleasure /pleʒə/
/l/	as in believe /bɪlɪv/
/ð/	as in this /ðɪs/

The respondents were asked to produce the words while they were tape-recorded.

Some of our informants especially those form Ikono Ibom Comprehensive Secondary School, Ikot Ayan Ikono and those from West Itam Secondary School had problems especially by substituting the voiceless consonants as in /f/ for /v/ which is the voiced counterpart in the given words. The reasons for this problem may be attributed to their being confused with what sound to choose in the given words since /f/ is present in Ibibio and /v/ is not present. The problem could as well be attributed to lack of enough exposure to English language as well as considering their rural locality in which they are in a way limited to communication in Ibibio alone.

Informants from the urban area especially those from University of Uyo did not have much problem on the realization of this sound /f/, except the five out of twenty who had the similar problem of substituting /f/ for /v/, and this may be traced to mother tongue interference and not having enough exposure to English language.

The informants did not have much problems in producing all the consonant sounds. /ð/ records 50% of performance, /p/ records 55% of performance, /l/ record 50% of performance /z/ records 55% while /f/ records 60% of good performance the other consonant sounds involved were not realized well. All the consonant sounds used in the study and the performance of competence or otherwise is presented in the table below:

Consonant Sounds: Table of Competence

Consonants sounds	Items	No Able	% Able	No. Unable	% Unable
θ	think	40	40	60	60
/ð/	there	50	50	50	50
/g/	good	45	45	55	55
/ʤ/	joke	45	45	55	55
/v/	revive	48	48	52	52
/p/	pap	55	55	45	45
/ʒ/	pleasure	35	35	65	65
/f/	refuse	60	60	40	40
/z/	lazy	55	55	45	45
/l/	believe	50	50	50	50

Discussion

With regard to the production of English consonant sounds shown above as used in this study, almost all the sounds tested proved problematic. This means that English consonants were not that easy for the informants to realize. Although Eka and Udofot, (1996, p.6) is not in support of this statement, rather the source says that consonants are easier to realize, analyze and describe. It was noticed that some informants, in the course of producing certain consonant sounds, were not able; so they rather substituted the Ibibio similar sounds for the actual sounds they were to produce.

This is a kind of divergence which is quite prominent with Englishes of other circles and expanding ones where English serves numerous purposes, as a second, as a foreign, as an alternate language among others. In this circumstance, justification for this point is that majority of these countries have English where local language had already existed and hence we expect the natural process of nativization of the non-native varieties of English and Englishization of the local languages.

With regard to consonants involved in this study, Ibibio English as a variety of the new Englishes, is known to be involved in a few divergence. For instance, some informants found it difficult to realize /θ/ in words like thank /θænk/, anything /enωθωŋ/, filth /fωlθ/. /θ/ is a dental voiceless fricative, but they tend to replace it with the alveolar plosive /t/. The substitution of /t/ for /θ/ in Ibibio could be attributed to the absence of /θ/ in Ibibio. In realizing it, 40% of the respondents were able to articulate it correctly, while 60% were not.

In realizing the voiced dental fricative /ð/, 50% were able to realize it as in the words: there /ðeə/, other / ðə/ and this /ðωs/. While 50% realized it as alveolar plosive /d/. This problem is attributed to the informants inability to get familiar with English sounds and their realizations in words.

/g/ is a voiced velar plosive. 45% were able to pronounce it well, as in the words: good /gud/, together /tʊgəðə/, big /bωg/. While 55% were unable to pronounce it as /g/ but as a voiceless velar plosive /k/.

/→/ which is a voiced palato-alveolar affricate, 45% were able to realize it well as in: joke /→əʊk/, judging /→ →ωŋ/, village /vωlω→/. While 55% realized it as /j/ which is a palatal semi vowel. Ibibio language does not have this sound, and the poor performance can be attributed to the informants' inability to recognize sounds in word combination, and due to lack of enough exposure to oral communication in English on the part of the teachers.

/v/ is a voiced labio dental fricative and does not occur in Ibibio. It is not surprising therefore, as informants substitute it for the voiceless labio dental fricative /f/, which is somewhat similar to it. This problem could be attributed to the informants exposure to both Ibibio and English as they are confused on which to realize in words combination containing them.

/p/ **-** a voiced bilabial plosive was realized well by 55% of the informants, while 45% substituted it with /b/, the voiceless counterpart. Words involved in the test in this case were: pap /pæp/, reply /rıplaı/, tape /teıp/. 45% of them realized it as /b/.

/ʒ/ is a voiced palato alveolar fricative. 35% of the respondents were able to realizing it well as in: pleasure /pleʒə/, casual /kæʒʊəl/, garage /gæra:ʒ/, while 65% of them replaced it with /s/ which is a voiceless alveolar fricative. /ʒ/ does not occur in Ibibio, but /s/ is found in Ibibio.

/f/ is a labio dental fricative, as: faith /feωθ/, refuse /refjus/, relief /rωlωf/. It was pronounced well by 60% of the informants, while 40% replace it with /v/.

/z/ is a voiced alveolar fricative. It was sometimes erroneously replaced with /s/, the voiceless counterpart as noticed in the following words: lazy /leωzω/, zealous /zeləs/, zeal /zi:l/. 55% were able to pronounce the sound well while 45% were unable.

/l/ is an alveolar lateral. Some informants substituted it for /r/ which is an alveolar rolls. This was noticed in words like believe /bωlωv/, college /kZlıdʒ/, lorry /lZri:/. 50% of the informants performed well in the pronunciation, while same 50% were unable to pronounce it well. This may be because /l/ does not exist in Ibibio dialects.

The above observable problem is traceable to the fact that a learner of English experiences the inconsistency existing between English orthography and pronunciation. That is to say, a large number of English words are not pronounced according to how they are spelt. This phenomenon poses a serious problem to the Ibibio English bilinguals who may find it difficult to make the transition from the visual orientation towards words, which he uses to an aural perception. He tends to articulate the word from the point of view of the existing letters that are actual sounds and adds

symbols for sounds which occur but are not represented in the spelling.
English consonants as noticed are more in number than Ibibio consonants. For every voiceless sound in English there is a voiced counterpart as noticed in this case: /s/→ /z/, /θ/ →/ð/ etc

In Ibibio, apart from /p/ and /b/, /d/ and /t/ there is no voiced and voiceless relationship between consonants since almost all the Ibibio words are voiced. The English voiceless consonants are almost always substituted for the voiced consonants by Ibibio speakers.

The above problems encountered by the informants as already pointed out in some items may be attributed generally to the informants' lack of enough exposure to English language, blame being on the part of the teachers' experience or laziness to teaching the students. The reason for the poor performance is also on the part of the students who are reluctant or showing lukewarm attitude towards learning English language.

Though we have predicted where the problems may arise, we must however recall that organization of sounds in natural languages differ from language to language and there is a general tendency noticeable in the phonology of all natural languages and is termed phonological universals. All phonological systems have their basic sounds – vowels and consonants and the phonological system vary from one system to another. As such, an Ibibio learner of English - as an L_2 product - cannot perfect all the realization of sound in English language. Even in Ibibio which he is an L_1 product, he cannot perfect realization of all the sound systems in Ibibio because sound system in Ibibio vary also from community to community, thus imposing certain influences on each other.

In line with our discussion, English has five long and seven short monophthongs, eight diphthongs and five triphthongs vowel system. It has twenty four consonant sounds.

Ibibio in the other hand has ten monophthongs, five diphthongs for vowel system, and according to Urua (1990, p. 20), twenty one consonants, according to the following groupings: six oral, six nasal stops, one syllabic nasal, one trill, one tap, three fricatives and three approximants.

The varieties observed in these two languages show that pattern forming capabilities of these sounds in these two languages vary as well. As such, a learner must not only limit himself to the rules of word combination but must extend his skills to learning with specific attention the perception and production of these sounds which may be termed pronunciation.

Conclusion

Ibibio belongs to the Niger Congo family which is one of the largest families of languages in Africa. According to Essien (1990, p. ix), it is not genetically related to English language, hence it has different syntactic, morphological, phonological and semantic structures.

Significantly, it is noticed that there are differences and similarities between the segmental features of Ibibio and English. These differences account for the variations observed in the speech output of Ibibio users of English while similarities facilitate their communication in some ways. The problems encountered by our respondents in the realization of speech sounds in English may be in turn attributed to the nature of sounds as they have different realizations caused by phonological environments in which they appear, (as Ibibio has its own arrangement of words, which differs from that of English).

From the above observation, considering the general performance of Ibibio learners and users of English, if given enough exposure to the English language and improvement in the quality of models and teachers, performance will be greatly enhanced.

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