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# A COMPARATIVE ANALYSIS OF ENGLISH AND ANNANG PHONOLOGICAL SYSTEMS

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**ABSTRACT:** *The problems facing an Annang speaker of English are many: he applies the rules of Annang in his use of English particularly in sound production; when he is confronted with vowel sounds that are non-existent in the Annang sound inventory, he reduces the English vowel to the nearest vowel in his inventory; he hardly discriminates between long and short vowels; he also has problems relating to nonsegmental phonology particularly in the areas of stress and intonation. This study has provided the rationale for the comparative analysis model. Four null hypotheses were used for the study and were measured with the Chi-square test. One hundred and twenty final year Annang Secondary School students provided the sample and were drawn through stratified random sampling. Literature was reviewed on phonology and Annang language studies. At 0.01 confidence level and 1 degree of freedom (df), the calculated value of $x^2$ (30.8) was greater than the table value of $X^2$ (6.63) and so. Hypotheses 1 and 2 were rejected. At 0.01 confidence level and 1 degree of freedom (df), the calculated value of $X^2$ (22.8) was greater than the table value of $X^2$ (6.63) and so Hypotheses 3 and 4 were rejected. It was discovered that Annang speakers of English encounter problems in sound articulation. There is need for English teachers in Annang land to diagnose these problems and help the learners overcome them.*

**KEYWORDS:** Comparative Linguistic Analysis, Phonology, Annang Language Studies

## INTRODUCTION

### Background of the Study

Annang is spoken by Annang people who reside mostly in Eight Local Government Areas of Akwa Ibom State of Nigeria. These are Abak, Essien

Udim, Etim Ekpo, Ikot Ekpene, Ika, Obot Akara, Oruk Anam and Ukanafun. Essien (1980 p.8) indicates that Annang people number about one and a quarter million. But the 1991 census puts the population of these six Local Government Areas at about one million. Udoh (1983 p.2) puts the figure at over two million.

Dialectal differences exist in Annang. For example, in Ikot Ekpene dialect / R/ and /d/ are in free variation as in ‘akpede’ /ákpédè/ and ‘akpere’

[ákpéRè], ‘in case’ or ‘if’. Other Annang speakers, however, understand people from Ikọt Ọbọng Edọng, Uruk Usọ and others when they use

[ákpéRè]. In Ukanafun dialect / R/ and /l/ are in free variation as in ‘ùrà’ and ‘ula’ [ùlà] ‘market’. Among Afaha Obong speakers /s/ and /tS/ are in free variation as in ‘ison [ísɔN] and ‘ichon’ [ít Sɔ›N], ‘ground’. Some Annang speakers in some parts of Oruk Anam and Ikọt Ekpene who have been influenced by their Ibibio neighbours in Mkpat Enin and Ikọnọ Local



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Government Areas respectively substitute /s/ for /t S/. Instead of saying 'uchọrọ' /u@t Sɔ@Rɔ@/, they say 'usọrọ' [u@sɔ@Rɔ@], 'feast'.

Moreover, there is the case of historical assimilation whereby in the course of development of a language, a word which was once pronounced in a certain way is subsequently pronounced in a different way. For example, some Afaha Obong and Otoro speakers in Abak still refer to 'enemy', as 'ufia' instead of 'usua'. For the word 'year', they insist on 'ifia' instead of 'isua'. These have not, however, gained general acceptability. Evans (1966 p.47) has rightly warned, "You can't hold the language of one generation up as a model for the next".

On account of such dialectal differences as discussed above, this research employs the term "Annang Language" to refer to a language used by a majority of Annang people. They include mainly Annang speakers from Okon, Odoro Ikọt, Ekpenyọng, Ikpe, Adiasim, Afaha and Ukana which constitute Essien Udim Local Government Area, Afaha Esang, Otoro, Midim and Ntọ Ọbọ in Abak, Eka Uruk Eshiet, Ika and Ikọt Ọdọngọ in Etim Ekpo, Ikọt Ibritam and Ikọt Akpan Essien in Oruk Anam, Ọkọyọ, Nseghe and parts of Ikot Ekpene.

**Statement of the Problem**

The problem with an Annang speaker of English is that he tends to apply the rules of Annang language in his use of English particularly at the early stages of his attempt to learn English. This problem features in many areas of sound production. For example, the English consonants / D/ and / T/ pose a problem to some Annang Speakers. These sounds are often reduced to /d/ and /t/ respectively because of their absence in Annang. So the expression 'this thing' / D"s T"N/ sometimes becomes [dis ti N]. Some

Annang speakers from Ukanafun hardly distinguish between /ℓ/ and /r/ hence 'grass' /grQs/ sometimes becomes 'glass' [glas] and vice versa.

There are also problems relating to the production of vowel sounds. Some vowels of Annang are basically different from those of English. For example, the English vowels /^, Œ:, Q/ and others are non-existent in

Annang. This is a problem to many Annang speakers especially in the pronunciation of English words like 'burn' /b Œ:n/ and 'enough' / "n^f/.

These are often produced as [bɔ:n] and [inɔf] respectively.

Some Annang speakers hardly distinguish between long and short vowels. In many instances, long vowels are considerably reduced in length.

For example,

| | | |
|---|---|---|
| pool / pu:l / | becomes | [ pul ] |
| port / pɔ:t / | becomes | [ pɔt ] |
| seat / si:t / | becomes | [ s "t ] |
| sheep / Si:p / | becomes | [ S"p ] |

Diphthongs are often reduced to monophthongs as in 'came' /ke"m/ which becomes [ke:m]. This is why the words 'edge' /ed Z/ and 'age' /e"d Z/ are rarely distinguished.



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Annang speakers also have problems relating to the nonsegmental features of English. The problem of intonation is very pronounced among Annang speakers of English. For example, instead of saying, "Did he come?", some of them say, "Did he come?" Moreover, since Annang is a tonal language, a feature like word accent is often replaced with tone. An English word like 'Alice' / 'Ql "s/ often becomes [àlís] for an Annang

speaker.

My experiences as an English teacher for fourteen years in five secondary schools in Annang community have led me to appreciate the problems facing an Annang speaker of English. This is why this research attempts to handle these problems systematically through an analytical comparison of English and Annang.

**Need of the Study**

Dunstan (1969 p.35) says "Ibibio, Efik and Annang form a cluster of at least partially mutually intelligible dialects". Reasonable work has been done in documenting the phonological systems of Efik. For example, Ward (1933), Welmers (1973), Ekpanyun (1977), Eka (1979) and Essien (1982) have studied the different aspects of Efik phonological systems. Studies have also been carried out on Ibibio phonological systems as seen in Kaufman (1968), Umoh (1985), Urua (1987) and Essien (1990). Apart from studies shown in Essien (1973), not much work has been done on Annang language. There is, therefore, a great need to undertake a study of the phonological systems of Annang so as to identify the segmental as well as the nonsegmental features of the language and compare them with those of English. A proper highlighting of the similarities and differences will acquaint one with the peculiarities of each language. This will surely equip linguists with the tools to analyze Annang language in comparison with English. It will also facilitate the study of both languages.

Crystal (1974 p.10) has observed that "there are many languages in the world today which have never been written down". Annang is a language close to that description because only a few aspects of it have been written.

The study is necessary for two additional reasons:

(i) As Udofot (1991 p.6) has rightly noted,

> *There are identifiable differences in the phonological, syntactic and morphological patterns of various languages.*

(ii) In the study of a second or foreign language, the identification of these differences is primary and fundamental. Such identification helps in various contrastive and comparative studies.

**Rationale for Comparative Analysis**

The Comparative analysis of languages is an important aspect of linguistic studies. It is an empirical and synchronic study which aids language studies especially in the acquisition of a second or foreign language.

Crystal (1974 p.52) says that comparative Linguistics "aims to show the similarities and differences between various languages, dialects etc". Knowledge of such differences and



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similarities serves as a guide in the study of the languages in question. Moreover, such comparison reveals, as Vachek had earlier observed:

> *those features of the examined language which stand out as particularly characteristic and typical of it (Vachek, 1972 p.13).*

Comparative analysis also provides language teachers with the principles with which language can be taught. For example, it would be proper to proceed from what is common to the two languages to what is different in them. It has been noted concerning English and Efik that,

> *In discussing consonant sounds, the Efik learner of RP will benefit better if one goes from sounds present in both languages and then proceeds to RP /l,* S, *t*S, *g, v, z,* T, D, *dZ/ ... progressing from the simplest to the most problematic (Eka, 1979 p. 139).*

This progression from simple to complex certainly helps in the selection and arrangement of teaching materials in teaching the target language.

A comparative study of languages generally reveals the problems relating to the study of these languages. Lado (1957 p.11) has observed that comparing the native and the foreign sound systems is

> *a means of predicting and describing the pronunciation problems of the speaker of a given language learning another.*

**Hypothesis for the study:**

The following null hypotheses were used for the study:

**Hypothesis 1:**

Differences existing between English and Annang segmental features do not significantly hinder the production of English sounds by Annang speakers.

**Hypothesis 2:**

Similarities existing between English and Annang segmental features do not significantly facilitate the production of English sounds by Annang speakers.

**Hypothesis 3:**

Differences existing between English and Annang nonsegmental features do not significantly hinder communication in English by Annang speakers.

**Hypothesis 4:**

Similarities existing between English and Annang nonsegmental features do not significantly facilitate communication in English by Annang speakers.



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## RESEARCH METHODOLOGY

### Population, Sample and Sampling Procedure

This research was conducted in Abak, Essien udim, Etim Ekpo, Ikot

Ekpene, Ika, Obot Akara, Oruk Anam and Ukanafun Local Government Areas of Akwa Ibom State of Nigeria. The inhabitants of these Local Government Areas speak mainly Annang Language.

The population of the research consisted Annang speakers of English in the eight Local Government Areas and the sample consisted of one hundred and twenty (120) final year secondary school students. The choice of final year secondary school students was informed by the fact that they are sufficiently exposed to speaking both English and Annang fluently. The selection of the students was done through stratified random sampling. After the selection of the twelve schools, they were stratified along urban and rural locations. This was done to ensure a good geographical spread. The sex stratification was not intended to measure sex differences in sound production but to take care of the entire stratum to ensure reliability of the results. In each school, five male and five female students were randomly selected.

### Instrumentation

The instrument consisted of three oral tests carried out under examination conditions. The informants were expected to respond under strict anonymity.

Test One was a reading passage in English. This was intended to find out the informants' ability to recognise and produce English sounds. A list of words and sounds was provided with which the researcher assessed the informants. The sounds with which the informants had difficulty were noted. In Test One also, a list of phrases and sentences picked from the reading passage was provided with which the informants were tested for accentuation and rhythm.

Test Two provided a set of sentences meant to assess the informants' ability to recognise and use appropriate intonation in sentences.

Test Three was an oral essay in English. It consisted of three topics. The informants were to choose one and speak on it for five minutes. This test was intended to assess the informants' ability in acceptable pronunciation, accentuation, intonation, fluency, vocabulary and suitable use of idioms.

### Data Collection and Scoring

In Test One, each informant was given two minutes to prepare, before reading the passage two times. While the informants read the passage, the researcher scored first in sound discrimination. During the second reading, the researcher watched out for appropriate use of accentuation and rhythm and scored accordingly.

In Test Two, the informants read the sentences while the researcher watched out for the proper use of either the Falling and Rising Tunes as well as for pitch contrasts.

In Test Three, each informant was given two minutes to choose and prepare one topic among the three essay topics provided.



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The scores in the three tests were distributed as follows:

(a) Production of consonants: 25 marks

(1 mark for each consonant, 1 mark for composure) (b) Production of vowels: 25 marks (1 mark for each vowel).

(c) Accentuation and rhythm: 14 marks (½ mark for each accent).

(d) Intonation: 11 marks (½ mark for each tune).

(e) Oral essay: 25 marks

The breakdown was

Pronunciation: 5 marks

Accentuation: 5 marks

Intonation: 5 marks

Fluency: 5 marks

Vocabulary and Idioms: 5 marks

The weighted score for each informant was one hundred percent (100%).

**Procedure for Testing the Hypotheses Hypothesis 1:**

Differences existing between English and Annang segmental features do not significantly hinder the production of English sounds by Annang speakers.

**Independent Variable:** Differences between English and Annang segmental features.

**Dependence Variable:** Production of English sounds by Annang speakers.

**Statistical Analysis:** Chi-square ($X^2$) Test.

**Hypothesis 2:**

Similarities existing between English and Annang segmental features do not significantly facilitate the production of English sounds by Annang speakers.

**Independent Variable:** Similarities between English and Annang sounds.

**Dependent Variable:** Production of English sounds by Annang speakers.

**Statistical Analysis:** Chi-square ($X^2$) Test.

**Hypothesis 3:**

Differences existing between English and Annang nonsegmental features do not significantly hinder communication in English by Annang speakers.

**Independent Variable:** Differences between English and Annang nonsegmental features.



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**Dependent Variable:** Communication in English by Annang speakers.

**Statistical Analysis:** Chi-square ($X^2$) Test.

**Hypothesis 4:**

Similarities existing between English and Annang nonsegmental features do not significantly facilitate communication in English by Annang speakers.

**Independent Variable:** Similarities between English and Annang nonsegmental features.

**Dependent Variable:** Communication in English by Annang speakers.

**Statistical Analysis:** Chi-square ($X^2$) Test.

## REVIEW OF RELATED LITERATURE

### Preamble

This section concentrates on two areas: Literature on Language and Phonology, and Literature on Annang Language Studies.

### Literature on Language and Phonology

Gimson (1980) in Part One, has done an elaborate work on speech and language. Language is a major factor in the identification of a people. It is through language that man contributes to the survival of society. Language involves phonetics, phonology, grammar and semantics. A language can be defined as

> *a system of conventional signals used for communication by a whole community. This pattern of convention covers a system of significant sound units (the phonemes), inflexion and arrangement of 'words', and the association of meaning with words (Gimson, 1980 p. 4-5).*

In his treatment of phonology the author dwells on the phonetic characteristics of the sounds used in language, the phonemic behaviour of these sounds as well as the prosodic features of pitch, stress and length. Such treatment portrays phonology and phonetics as two mutually inclusive areas on which the scientific study of language anchors. Since the primary realization of a language is through speech, one means through which we can detect how language is structured is to examine the actual method of articulation of speech sounds in human beings. This can be done through a study of the vocal organs with which speech sounds are produced, a study of how speech sounds are transmitted through the air from one person to another and a study of how human beings actually perceive these sounds.

The author has also undertaken an in-depth treatment of the segmental and nonsegmental features of language. In trying to distinguish between vowels and consonants, he has noted that

> *when vowel and consonant have been defined phonetically, the criterion of distinction has generally been one of stricture. i.e.*



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> *the articulation of vowels is not accompanied by any closure or narrowing in the speech tract which would prevent the escape of the air stream through the mouth or give rise to audible friction; all other sounds (necessitating a closure or a narrowing which involves friction) are consonants (Gimson, 1980 p.32).*

Sommerstein (1977) is a comprehensive treatment of phonology. The author considers phonology as a branch of Linguistics which is concerned with how sounds and prosodic features operate in natural languages. In his discussion of the aims and principles of phonology, the author is of the opinion that phonology is a means.

> *for reducing the literally infinite variety of human articulation to what is, for each language, a relatively small number of essential distinctions, and more as a code whereby the grammatical structures known as sentences are given audible form (Somerstein, 1977 p.1).*

Essien (1990) is divided into three major parts namely: phonology, morphology and syntax. The part on phonology is the concern of this review. The author has pointed out the distinction between phonology and phonetics. According to him,

> *The phonology of a language is the sound system of that language. Unlike phonetics, which is concerned with the study of speech sounds in general, phonology is concerned primarily with the sound patterns of individual languages (Essien, 1990 p.3).*

In his treatment of the phonology of Ibibio language, the author has provided some parameters with which the phonology of a language can be examined. These include.

a) The phonetic sounds or segments actually occurring in the language.

b) The phonemes, or abstract sound units, which are capable of contrasting meanings of words in the language and to which these phonetic segments can be assigned in accordance with laid down criteria.

c) The description and general organization of these segments in word formation.

The author has also carried out an elaborate analysis of Ibibio vowels and consonants as well as vowel and consonant processes, illustrating them with relevant examples. He has indicated a ten-vowel system for Ibibio: three front vowels /i, i, e/, three central vowels /ˊ, ʌ, a/ and four back vowels /ɔ, o, ¨, u/. He has also indicated a fifteen-consonant system for Ibibio. They include /p, b, t, d, k, f, s, kp, m, n, ¯, N, y, w, ‘’/.

## LITERATURE ANNANG LANGUAGE STUDIES

Essien (1973) is a critique of an original study on Annang language conducted by S. W. Koelle, a colonial missionary in Sierra Leone and published in 1854. From Essien’s deductions,



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Koelle's informant in Sierra Leone was a slave from Nkwot in Utu Etim Ekpo. His name was Ekpenyong and he had lived in Sierra Leone for eighteen years during which period he had lost contact with his original Annang linguistic community. The author has also observed that the linguistic data supplied by Koelle's informant is disputable. Moreover, the fact that Koelle used the word-list method in his data collection presents a number of problems in the study. The problems are summarised thus:

> *Apart from the methodological weakness of the word list, some items in Koelle's data suggest the possibility of his informants having partially forgotten their mother tongues after several years of separation from their homeland (Essien, 1973 p.182).*

This is why Essien has subjected Koelle's work to a number of criticisms and has come out with some modifications as the following data shows:

| KOELLE'S DATA | | ESSIEN'S DATA |
|---|---|---|
| twenty | e:rib | éríp |
| belly | l:rib | iríp |
| hoe | u:rɔg | úrɔk |
| tooth | e:rEt | érEt |
| stranger | aik En Ego | Eci EÈno@wo |
| chest | e:kid | écit |
| God | awa:si | awasi |

(Essien, 1973 p.185).

This critique has given much insight into Annang language. For example, the author has noted with respect to Annang language that "final stops are generally unreleased" (Essien, 1973 p.180). He has also noted that there are two major dialects in Annang. These are Abak/Central Annang and Otoro (in Ikot Ekpene) dialects. The two dialects are indicated in the following sounds and words:

| | Abak, Central Ana: N | Otoro |
|---|---|---|
| 1. | [ kp ] ákpán | [ p ] ápán 'first son' |
| 2. | [ w ] awasi | [ b ] abasi 'God' |
| 3. | [ c ] écit | [ s ] ésit 'chest' |

(Essien, 1973 p.178).

Utip (1989) is a comparative study of Ibibio, Annang and Efik vowels. The researcher has identified Annang as belonging to the Lower – Cross group of languages and forming a cluster with Ibibio and Efik.

The researcher has identified seven vowels for Annang. They include / i, e, a, ɔ, o, U, u/. Three of these /i, e, a/ are front vowels while four /ɔ, U, o, u/ are back vowels.



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Generally, her version of Annang sounds is questionable. This could be traced to her informants. The following are modifications of some information from her data:

| UTIP'S VERSON | MODIFICATIONS | |
|---|---|---|
| / tá-túa / | / túa-túa / | be crying |
| / dàk / | / Ràk / | be early |
| / èdìdɔ$k / | / àRì Rɔ$k / | gossip |
| / ɔ$bɔ$N / | / ábɔ$N / | mosquito |
| / òbufl / | / àwʉfl / | crayfish |
| / ótú / | / átú / | crowd |
| / óbód / | / ábód / | hill |
| / bùk / | / wʉk / | tell a story |
| / ùdufl / | / ù Rʉ@ / | malice |
| / òdú / | / àRufl / | wisper/consultation |
| / s "@:d / | / t Sííd / | close/block a hole |
| / ndiéén / | /n@níeen/ | nice food/delicious |

A close look at these studies reveals that these earlier researchers were not quite familiar with the phonological systems of Annang. Some of the studies were rather hasty. For instance, discussing Koelle's work on African languages, Kelly (1968 p.107) is of the view that:

> *many of the deficiencies ... are to be put down to inadequate skill on the part of the investigator, a condition that could only have been aggravated by the speed at which the work must have been carried out. One is supported in this judgement by the fact that many of Koelle's errors ... can be easily explained on phonetic grounds.*

This observation is particularly true of Utip's work on Annang Vowels. For example, it is surprising that the source describes /a/ as a front vowel.

It can, therefore, be seen that apart from Essien (1973), not much research has, to the best of my knowledge, been undertaken on Annang language. This study will therefore, be a useful contribution in this area of study.



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## SUMMARY, IMPLICATIONS OF FINDINGS AND CONCLUSION

### Preamble

We hereby present a summary of the findings in the study. The hypotheses are examined to bring out their implications for the analytical comparison of English and Annang. The implications of this research for linguistic studies are also presented. Some recommendations have been offered. Finally, there is a general conclusion based on the findings in the research.

### Summary of Findings

It was the intention of this research to investigate the phonological systems of English and Annang, as well as analytically compare these two phonological systems. The purpose of the analytical comparison was to identify similarities and differences between the sound systems of the two languages. Finally, it was the intention of this research to find out how these similarities and differences pattern with the performances of Annang speakers of English.

After the introductory issues in the first chapter, we embarked upon a study of the vowels of the two systems, of the consonant systems and of the nonsegmental features.

The following are the key findings:

1. The English monophthongs / ∧, Q, Œ:, ´, ç:, u:, a: / are nonexistent in Annang.
2. The English diphthongs /aU, ´U, "´, e´, U´/ are nonexistent in Annang.
3. The English triphthongs /e"´, a"´, aU´, ç"´, ´U´/ do not occur in Annang.
4. The English vowels /a", e, ", aU, U, ç", Å/ were easy for the informants to produce in the words provided in the test.
5. The English triphthongs / e"´, a"´, aU´, ç"´, ´U´/ were difficult for the informants to produce in the words provided in the test.
6. In Annang, the consonants /t/ and /d/ are in free variation in final positions and they are unreleased as in ‘jet’ /d Zét/ and ‘jed’ /d Zéd/ ‘wash’.
7. In Annang, the consonants /p/ and /b/ are in free variation in final positions and they are unreleased as in ‘sọp’ /s ç@p/ and ‘sọb’ /s ç@b/ ‘be fast’.
8. The English consonants /p, b, t, k, t S, d Z, l, r, f, m, n, w, S, h/ were easy for the informants to produce in the words provided in the test.
9. The English monophthongs / ∧, Q, ´ / were difficult for the informants to produce in the words provided in the test.



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10. The English diphthongs / "´, e", e´, U´, ´U / were difficult for the informants to produce in the words provided in the test.

11. Unlike English, Annang is a tonal language.

12. Both the rising and falling patterns of intonation occur in Annang.

**Implications of the Study**

To ensure an effective empirical analysis of issues involved in the comparison of the two languages, four null hypotheses were used, as shown below:

**Hypothesis 1:**

Differences between English and Annang segmental features do not significantly hinder the production of English sounds by Annang speakers.

**Total of Observed Frequency (Fo)**

| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 48 | C 72 | 120 |
| Similarities | B 95 | D 25 | 120 |
| Total | 143 | 97 | 240 |

Expected Frequency (Fe) = $\frac{\text{Row Total X Column Total}}{\text{Overall Total}}$

Fe for A and B = $\frac{143 \times 120}{240}$

= 71.5

Fe for C and D = $\frac{97 \times 120}{240}$

= 48.5



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**Table of Expected Frequency (Fe)**

| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 71.5 | C 48.5 | 120 |
| Similarities | B 71.5 | D 48.5 | 120 |
| Total | 143 | 97 | 240 |

**Calculated Value of $X^2$**

| | O | E | O – E | $(O - E)^2$ | $\frac{(O - E)^2}{E}$ |
|---|---|---|---|---|---|
| A | 48 | 71.5 | -.23.5 | 552.25 | 7.7 |
| B | 95 | 71.5 | 23.5 | 552.25 | 7.7 |
| C | 72 | 48.5 | 23.5 | 552.25 | 7.7 |
| D | 25 | 48.5 | -23.5 | 552.25 | 7.7 |
| | | | | | 30.8 |

$X2 = \Sigma\left(\frac{\quad}{\quad}\right) = 30.8$

At 0.01 confidence level and 1 degree of freedom[1] (df), the Calculated Value of $X^2$ (30.8) is greater than the Table Value of $X^2$ (6.63). Consequently, we reject $H_0$ as stated, in favour of $H_1$. This is an indication that the absence of certain sounds of English in Annang hinders the production of such English sounds by Annang speakers.

**Hypothesis 2**

Similarities existing between English and Annang segmental features do not significantly facilitate the production of English sounds by Annang speakers.

**Similarities in Segmental features**

| | |
|---|---|
| Total Number Able | 1899 |
| Mean | 95 |
| Total Number Not Able | 501 |
| Mean | 25 |



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**Differences in Segmental features**

| | |
|---|---|
| Total Number Able | 1386 |
| Mean | 48 |
| Total Number Not Able | 2094 |
| Mean | 72 |

**Table of observed Frequency (Fo)**

| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 95 | C 25 | 120 |
| Similarities | B 48 | D 72 | 120 |
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| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 71.5 | C 48.5 | 120 |
| Similarities | B 71.5 | D 48.5 | 120 |
| Total | 143 | 97 | 240 |

**Calculated Value of $X^2$**

| | O | E | O – E | $(O - E)^2$ | $\frac{(O - E)^2}{E}$ |
|---|---|---|---|---|---|
| A | 95 | 71.5 | 23.5 | 552.25 | 7.7 |
| B | 48 | 71.5 | -23.5 | 552.25 | 7.7 |
| C | 25 | 48.5 | -23.5 | 552.25 | 7.7 |
| D | 75 | 48.5 | 23.5 | 552.25 | 7.7 |
| | | | | | 30.8 |

$$X^2 = \sum \left( \frac{\quad}{\quad} \right) = 30.8$$

At 0.01 confidence level and 1 degree of freedom (df), the Calculated Value of $X^2$ (30.8) is greater than the Table Value of $X^2$ (6.63). Consequently, we reject $H_0$ as stated, in favour of $H_1$. This suggests that sounds which are present in both English and Annang are easy to produce by Annang speakers. The results of the analysis of Hypotheses 1 and 2 confirm the assumption in Lado (1957 p.2) that:

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

This explains why some of the English sounds were difficult to produce while others were easy for the informants to produce. In some instances, the informants had to reduce a sound that does not occur in their language to the one that is nearest to it in their language. This was the case in the production of /j/ in the word 'young' /j^N/. Some informants pronounced the word [yçN ].

**Hypothesis 3**

Differences existing between English and Annang nonsegmental features do not significantly hinder communication in English by Annang speakers.



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In English, accentuation occurs in both words and sentences but in Annang it occurs mainly in sentences. Again in English, rhythm has two features: that of syllable timing and that of stress timing. In Annang it is only that of syllable timing. With regard to intonation, the rising and falling tunes occur in both English and Annang.

**Table of Observe Frequency (Fo)**

| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 29 | C 91 | 120 |
| Similarities | B 61 | D 59 | 120 |
| Total | 90 | 150 | 240 |

Expected Frequency (Fe) = $\frac{\text{Row Total x Column Total}}{\text{Overall Total}}$

Fe for A and B = $\frac{90 \times 120}{240}$

= 45

Fe for C and D = $\frac{150 \times 120}{240}$

= 75

**Table of Expected Frequency (Fe)**

| Segmental Phonemes | Number Able | Number Not Able | Total |
|---|---|---|---|
| Differences | A 45 | C 75 | 120 |
| Similarities | B 45 | D 75 | 120 |
| Total | 90 | 150 | 240 |



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**Calculated Value of $X^2$**

| | O | E | O – E | $(O - E)^2$ | $\frac{(O - E)^2}{E}$ |
|---|---|---|---|---|---|
| A | 29 | 45 | -16 | 256 | 5.7 |
| B | 61 | 45 | 16 | 256 | 5.7 |
| C | 91 | 75 | 16 | 256 | 5.7 |
| D | 59 | 75 | -16 | 256 | 5.7 |
| | | | | | 22.8 |

$X^2 = \sum \left( \frac{\quad}{\quad} \right) = 22.8$

At 0.01 confidence level and 1 degree of freedom (df), the Calculated Value of $X^2$ (22.8) is greater than the Table Value $X^2$ (6.63). Consequently, we reject $H_0$ as stated, in favour of $H_1$. This suggests that the absence of nonsegmental features such as word accent and in the case of rhythm, stress timing, affects oral communication by Annang speakers of English. The existence of a nonsegmental feature such as tone in Annang influences the speech behaviour of Annang speakers of English. We have already noted the neglect of accentuation and use of tone in the pronunciation of 'Alice' which is often pronounced [àlís] instead of / Ql "s/ (See 1.2).

**Hypothesis 4**

Similarities existing between English and Annang nonsegmental features do not significantly facilitate communication in English by Annang speakers.

**Similarities in Nonsegmental Features**

| | |
|---|---|
| Total Number Able | 614 |
| Mean | 61.4 |
| Total Number Not Able | 586 |
| Mean | 58.6 |

**Differences in Nonsegmental Features**

| | |
|---|---|
| Total Number Able | 287 |
| Mean | 28.7 |
| Total Number Not Able | 913 |
| Mean | 91.3 |



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**Table of Observed Frequency (Fo)**

| Nonsegmentals | Number Able | Number Not Able | Total |
|---|---|---|---|
| Similarities | A 61 | C 59 | 120 |
| Differences | B 29 | D 91 | 120 |
| Total | 90 | 150 | 240 |

Expected Frequency (Fe) = $\frac{\text{Row Total x Column Total}}{\text{Overall Total}}$

Fe for A and B = $\frac{90 \times 120}{240}$

= 45

Fe for C and D = $\frac{150 \times 120}{240}$

= 75

**Table of Expected Frequency (Fe)**

| Nonsegmental Features | Number Able | Number Not Able | Total |
|---|---|---|---|
| Similarities | A 45 | C 75 | 120 |
| Differences | B 45 | D 75 | 120 |
| Total | 90 | 150 | 240 |

**Calculated Value of $X^2$**

| | O | E | O – E | $(O - E)^2$ | $\frac{(O - E)^2}{E}$ |
|---|---|---|---|---|---|
| A | 61 | 45 | 16 | 256 | 5.7 |
| B | 29 | 45 | -16 | 256 | 5.7 |
| C | 59 | 75 | -16 | 256 | 5.7 |
| D | 91 | 75 | 16 | 256 | 5.7 |
| | | | | | 22.8 |

$X^2 = \sum \left( \frac{\quad}{\quad} \right) = 22.8$



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At 0.01 confidence level and 1 degree of freedom (df), the Calculated Value of $X^2$ (22.8) is greater than the Table Value $X^2$ (6.63). Consequently, we reject $H_0$ as stated, in favour of $H_1$. This implies that the presence of some nonsegmental features in both English and Annang makes it easy for Annang speakers to communicate intelligible in of English. The result of the analyses of Hypotheses 3 and 4 confirm the observation of Lado (1957 p.11) that:

When learning a foreign language we tend to transfer our entire native language system in the process. We tend to transfer to that language our phonemes and their variants, our stress and rhythm patterns, our transitions, our intonation pattern and their interaction with other phonemes.

This explains why some of the informants had problems with accentuation in the structures provided in the test. This also accounts for the use of tone in place of accentuation by some informants.

**Implications for Linguistic Studies**

Any learner is naturally exposed to a number of difficulties in his acquisition of the target language. For example, an Annang speaker who is learning to speak English will certainly face pronunciation problems. A proper diagnosis of such problems is important if the teacher is to help the learners to overcome this predicament. Lado (1957) has noted that the comparison of the sound systems of the foreign and native languages is a means to overcoming such problems.

These are tendency for the Annang learner to transfer some elements of his language into the target language. We have already noted this in the pronunciation of the word 'mats' which a great majority of the informants pronounced as [mats] while only a few pronounced as /mQts/.

Finally, familiarity with the differences and similarities in the two languages will help the language teacher to make predictions about the speech behaviour of his learners.

## RECOMMENDATIONS

We make the following recommendations in the belief that if they are implemented, the problems identified in this study can be overcome.

1. Teachers should be trained in the phonology of Annang language.
2. The use of Annang language at the initial stages of primary education should be encouraged in consonance with the recommendations of the National Policy on Education (2004).
3. Primary School pupils should only be introduced to English after they have had a solid foundation in their mother tongue.
4. Oral English should be introduced at the early stages of secondary school education.



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5. Each secondary school should establish a language laboratory which would be equipped with radio cassettes, sound charts and other visual, audio or audio-visual aids.

6. English teachers should be specialists in the field. In other words, they should be graduates of English or subjects relevant to English or English studies.

7. English teachers should be encouraged to up-date their knowledge through in-service training and seminars.

8. The school library should be well equipped with books on sounds and sound production in different languages.

9. Government and Non-governmental Organisations should organize English language seminars for secondary school teachers.

## CONCLUSION

Annang is a Lower-Cross language spoken by some inhabitants of Akwa Ibom State of Nigeria. Significant differences and similarities exist between English and Annang segmental and nonsegmental features. The differences hinder communication in English by Annang speakers while the similarities facilitate their communication in English.

A proper exposure of Annang learners of English through competent English teachers and the provision of learning facilities would surely facilitate the learning of English Annang speakers.

Teachers should be sufficiently trained to master English, Annang and other languages they have to teach. Such mastery will help them to appreciate the intricacies of language teaching. In this way, teachers can expose their learners to be intelligible in their oral communication.

Above all, this paper has made a case for mother tongue education which has been ignored by the Nigerian educational system.

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