

Diphthongization in Ngwa Igbo? Evidence from Phonological Correlates of Age Differentiation

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Abstract

The study investigates sound change pattern in *Ngwa Igbo* and seeks to determine whether the sound change pattern could be diphthongization which correlates to age differentiation among speakers of *Ngwa Igbo* dialect. The study adopted the descriptive research design with random sampling of 50 informants comprising pupils and students of 8-18years in Obi-Ngwa and Isiala Ngwa LGAs. Structured interview was used to elicit data from the informants using a wordlist and voice recorder. The study identified a sound change pattern obtainable in the speech of some young-generation speakers of the *Ngwa Igbo* dialect whereby in initial and medial positions in some words; there is gliding of the monophthongs /a/ and /e/ to their harmonic front vowel counterparts /i/ and /i/ respectively. It is the assumption of this study that the sound change could be diphthongization in *Ngwa* as evidenced and seen as phonological correlates of age differentiation. The study concludes that the sound change is not yet common by which we mean that it does not apply to all young speakers of the dialect and indeed not obtainable in all words where the vowels (/a/, /e/) occur in the dialect but may gain currency over time. Further analysis or re-analysis of the sound change is recommended as the process keeps evolving.

Keywords: *Diphthong, Diphthongization, Linguistic Correlation, Sound change, vowel gliding,*

Introduction

Contemporary linguistics studies of Nigerian languages still grapple with the claim of the presence or absence of diphthongs in our Indigenous languages. In relation to the Igbo language, some scholars argue that Igbo and its varieties or dialects have no diphthongs (Emenanjo, 1978, 2015, Donwa-Ifode, 1995, Nwaozuzu 2008 just to mention a few). However, languages undergo change over time and such change could affect the sound system or phonology of the language. Murray (1997) aptly observes thus:

Although all components of the grammar are susceptible to change over time, some types of change yield more obvious results than others. Variation and change are particularly noticeable in the phonology of a language...most sound changes begin with subtle alterations in the sound pattern of language in particular phonetic environment (Murray, 1997, p.318).

It follows from the observation above that sound change occurs in languages or even its varieties/dialects and may involve a change in articulation of sounds whether vowels or consonants. Vowels are produced with the tongue in a relatively steady state throughout its articulation. According to McGregor (2009, p.42) "a diphthong is produced when instead the tongue is in constant motion throughout, travelling from one vowel position to another." This process of articulation has been seen as 'vowel gliding' whereby in the course of the movement of the tongue, there is gliding from one vowel (monophthong) to another vowel (monophthong) to form a diphthong which according to Gimson (2012) could be explained as 'diphthongization'. Donwa-Ifode (1995) describes the process as the change of a monophthong into a diphthong or triphthong.

The correlation of linguistic variables with social variables, according to Wolfram & Fasold (1974, p73), is “at the foundation of the study of variability or change in language”. Social variables, continue Wolfram & Fasold, refer to the behavioural factor(s) that may be isolated to correlate with linguistic diversity. Such factors include region, social status (class), style, age, sex, contact, ethnicity, etc. This study therefore, examines the sound change involving the gliding from one vowel to another as evidenced in the age differentiation of some speakers of the Ngwa Igbo dialect.

Ngwa Igbo, by Nwaozuzu’s (2008) classification is a major dialect of the South Eastern Group of Dialects (SEGD) of the Igbo language. Nwaozuzu (2008, p.93) classifies Igbo dialects into eight groups and submits that “the South-eastern group of dialects are spoken in Isiala-Ngwa North and South, Obioma Ngwa, Osisioma Ngwa, Ukwu East and West LGAs”. Similarly, Oluikpe (1979) submits that Ngwa is widely spoke in seven Local Government Areas of Aba North, South, Osisioma, Obi-Ngwa, Isiala Ngwa North and South and Ugwunagbo of Abia State, Nigeria.

Study Objectives

The objectives of the study were to determine whether:

- (i) Diphthongization is a sound change pattern in *Ngwa Igbo*
- (ii) Diphthongization in *Ngwa Igbo* correlates to age differentiation among speakers of *Ngwa Igbo* dialect.

Methodology

The research design employed was the descriptive approach. Random sampling was used to select 50 informants comprising pupils and students of 8-18years old and from Ngwa origin in two primary and secondary schools in Obi-Ngwa and Isi-Ala Ngwa LGAs (which according to Oluikpe (1979) represent the core Ngwa dialect areas), of Abia State. Structured interview was conducted using a wordlist to elicit responses which were recorded, transcribed and analyzed. The analysis featured description of the vowel sounds, showing the direction of the gliding from one vowel to another on the vowel chart and the sound change processes. In presenting data for the study, the tone marking convention adopted is that of Green and Igwe (1963) where low and down-step tones are marked and high tones unmarked.

Diphthong and Diphthongization

Diphthongs otherwise called ‘gliding vowels’, are vowels in the production of which there is a change from one vowel quality to another. Writing on diphthongs, Dobrovolsky and Katamba (1997) observe that English vowels are divided into two major types, simple vowels (also called pure vowels or monophthongs) and diphthongs. They further hold that while pure vowels do not show a noticeable change in quality, diphthongs are vowels that exhibit a change in quality within a single syllable. Also, diphthongs are somewhat longer than the short simple vowels. According to the writers, English diphthongs show changes in quality that are due to tongue movement away from the initial vowel articulation towards another vowel position. The changes according to Dobrovolsky and Katamba (1997) are clearly perceptible in words such as “say, buy, cow, ice, lout, etc”.

Dobrovolsky and Katamba (1997) submit that diphthongs do not occur in all languages like the monophthongs and interestingly that diphthongs show certain variations

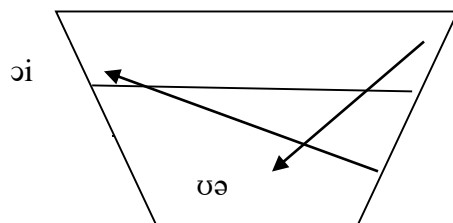
in languages in which they occur as they observe as follows: “In some languages (including English), the first part of a diphthong is much longer and perceptually more silent than the second” (p.36). The writers further assert that in English Received Pronunciation, there are nine diphthongs and they fall into two classes: centering diphthongs and closing diphthongs (also called closing diphthongs). In a centering diphthong during the final phase of the vowel articulation, the highest point of the tongue moves quickly towards the center of the mouth—the typical position it assumes for the articulation for English schwa sound. In closing diphthong, the tongue starts in a relatively low position and ends up in a high position either in the palatal areas at the front of the mouth.

Donwa-Ifode (1995) submits that diphthongs consist of two vowel elements the first, from which it starts, and the second element, which is the point at which it ends. The writer asserts that “they are thus, vowels that begin and end differently, that is beginning in one way and ending in another (Donwa-Ifode, 1995, p32).

Donwa-Ifode (1995, p. 59) while sharing the views of Dobrovolsky and Katamba (1997) further holds that “Diphthongs are classified according to the direction of the glide from a relatively more open or close to a less close or open vowel position”. She exemplifies thus:

The diphthong in *boy* starts in open-mid back, rounded position, then the tongue and lips move immediately to a close-mid, front and unrounded position. Owing to the way this diphthong is produced (with the movement from a more open to a more closed position), it is called a Closing diphthong. On the other hand, where the movement is from close to open, it is called an Opening diphthong as in *Poor*.

The chart below schematically shows the submissions of Donwa-Ifode (1995) on the classification of diphthongs based on direction of gliding.



In the chart above, the diphthong [oi] as in *boy* starts in mid-open back rounded vowel [ɔ] position to mid close, front and unrounded vowel position [i] showing closing diphthong. The opening diphthong as in the diphthong [uə] as in *Poor* starts in close back rounded vowel [u] position to mid-open central vowel [ə] showing opening diphthong.

Diphthongs contrast with monophthongs, where the tongue or other speech organs do not move and the syllable contains only a single vowel sound. For instance, in English, the exclamation *ah!* is spoken as a monophthong (/ɑ:/), while the exclamation *ow!* is spoken as a diphthong in most dialects (/aʊ/). By phonetic description, a diphthong is a vowel in which there is a noticeable sound change within the same syllable. (In contrast, a single or simple vowel is known as a monophthong.). The process of moving from one vowel sound to another is called gliding, and thus another name for diphthong is ‘gliding vowel’ (<https://www.thoughtco.com/diphthong-phonetics-term-1690456>). We now move over to a discussion of diphthongization.

Diphthongization has been differently conceived. For instance, Coleman (2000) relates the process to historical linguistics as he submits that diphthongization could be referred to as ‘vowel breaking’, ‘vowel fracture’, which typifies a situation where a single pure (monophthong) vowel experiences a change in quality from a pure vowel to diphthong. The ‘breaking’ or ‘fracture’ as conceived by Coleman represents the change in quality in its production which is unlike pure vowels. It is observed that “certain sound changes relate to diphthongs and monophthongs and such changes depict vowel shift. The shift could involve change in quality (diphthongization) in vowel production or absence of any change in quality (monophthongization or smoothing) during production” (www.wikipedia.org/diphthongization).

Murray (1997, p96) describes the process aptly thus: “Languages with seven (or more) vowels (the case in English at the starting point of the Great English vowel shift) often undergo diphthongization. This can be seen as a reaction to the overcrowding of the vowel system (Think of the two diphthongs as not infringing on the space of the simple vowels).” The writer further submits that diphthongization differs in form or nature of occurrence across languages. He submits that for instance in Old High German, Spanish and English languages that “the diphthongization in the Old high German and Spanish differs from that of the great English vowel shift in two ways. The mid vowels and not the high vowels are affected and different sets of diphthongs result”. The implication of Murray’s (1997) submission is that diphthongization may take a particular form in one language and another shape in another language.

Diphthongization or ‘vowel breaking’ may be unconditioned or conditioned (Murray, 1997, www.wikipedia.org/diphthongization). It is further observed that for conditional case, it may be triggered by the presence of another sound or by stress, or it may be triggered in no particular way. It is observed thus:

Sometimes vowel breaking is defined as a subtype of diphthongization; then, it refers to harmonic (assimilatory) process that involves diphthongization triggered by a following vowel or consonant. The original pure vowel typically breaks into two segments, and the first segment matches the original vowel and the second segment is harmonic with the nature of the triggering vowel or consonant. For example, the second segment may be /u/ (a back vowel) if the following vowel or consonant is back (such as velar or pharyngeal), and the second segment may be /i/ (a front vowel) if the following vowel or consonant is front (such as palatal). Thus, vowel breaking, in this restricted sense, can be viewed as an example of assimilation of a vowel to a following vowel or consonant (www.wikipedia.org/diphthongization).

For unconditioned case according to Murray (1997, p331), “diphthongization is sometimes not assimilatory, not triggered by a neighboring sound but may arbitrarily occur”. It is observed that unconditioned diphthongization is the case with the Great Vowel Shift in English: all cases of /i: u:/ changed to diphthongs. Further observed is that sometimes vowel breaking occurs only in stressed syllables. For instance, Vulgar Latin open-mid /ɛ ɔ/ changed to diphthongs only when stressed.

Age and Linguistic Correlation

A prominent feature of a speech community is the variability of language use. In relation to this, Hudson (1980) observes thus:

Men and women in a particular speech or linguistic community differ in their use of a particular set of linguistic variables and that older and younger as well as other social variables in the same community differ with respect to some set of linguistic: morphological, phonological and lexical variables considerably.

Perhaps, it is in recognition of this social fact that Labov (1975, p13) asserts, "...one of the fundamental sociolinguistic principles is that there are no single-style speakers..." The implication of Labov's assertion, according to Wolfram and Fasold (1974, p24) is that "...every speaker will show some variation in phonological and grammatical rules according to the immediate context he is speaking..."

This observation implies the idea of linguistic correlates. Variations across all levels of language study need be systematic and regular to qualify as correlates of any social differentiation. The systematicity reflects in the uniformness of the variations while its regular nature stems from the constant use and currency such variation gains in the speech community over time. It therefore follows that the systematized variations across language units such as lexicon, grammar, phonology could be correlations of social differentiations or social classes within a speech community thus; the idea of linguistic correlates.

Age as a social factor according to Agbedo (2001) has been shown to correlate with linguistic variables such as phonological, syntactic and lexemes among some speakers of the Igbo language. The study adopted a quantitative orientation to show the correlation between age and linguistic variation. In another study by Wolfram and Fasold (1974), age has also been found to correlate to phonological variation where by younger and older speakers differ in their use of certain phonemes considerably. Wolfram and Fasold (1974, p89) point out that "... there are characteristics in linguistic behaviour that are appropriate for the different states in the life of a speaker ..." This clearly indicates that one's speech pattern is greatly influenced by his age as a social factor.

Similarly, studies carried out by, Agbedo (1991), Akaan (2006), and Enete (2008) observe that differences in age bring about language variation in the speech of an individual speaker in a speech community. Agbedo's (1991) focus on *Enugu-Ezike* speech community reveals that younger speakers tend to use simplified forms of grammar and even sound features. However, Akaan (2006) holds that in Tiv speech community, differences occur in the younger and older speakers whereby younger speech form may exhibit reductions in sound features. The author holds that such correlation may feature simplified or even complex form depending on certain sociolinguistic or strict linguistic (phonological) conditions or circumstances. Enete (2008) shows that in Edem dialects, age correlates to linguistic variation among language users in the speech community. The adopted the quantitative design to reveal the percentages of occurrence of such variations.

Enete (2008) submits that the speakers within a given community can be classified under younger or older generation where 1 – 40 years may be categorized as younger generation while 41 – 80 may be categorized as older generations hence the age of a speaker may determine the way he uses languages.

Data Presentation and Analysis

The data presented here show the nature of the sound change from pure vowels (monophthongs) to a ‘vowel gliding’ process which we argue by our analysis to be cases of diphthongization. We have presented data by identifying the phonetic features of the words/expressions where this sound change is perceived and revealing the conditions that led or triggered the realizations. We have broken the data as follows: (1) those showing front open vowel /a/ gliding with its harmonic mid-close front counterpart /i/ and (2) those showing the front mid open vowel /e/ gliding with its harmonic close, front spread counterpart /i/as can be seen below:

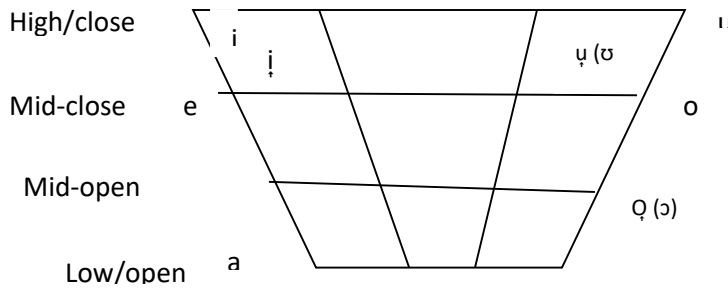
1. [a] → [ai]
 - (a) Mazi → maizi ‘an elder often used in the traditional greeting’
 - (b) asi → aisi ‘gossip’
 - (c) ob^hosarà → ob^hosaira ‘wide/wideness’
 - (d) akalaka → akalaika ‘long/lengthy’
 - (e) agbaghi → agbaighi ‘shoe’
 - (f) uhiara → uhiaira ‘joy/happiness’
 - (g) urasi → uraisi ‘pebble’
 - (h) asato, → asaito, ‘eight’
 - (i) afo, → aifo, ‘stomach’
 - (j) asàa → aisàa ‘seven’
 - (k) avo, → aivo, ‘load’

2. [e] → [ei]
 - (a) ekwesu → ekweisu ‘devil/Satan’
 - (b) ikpeyi → ikpeiyi ‘money’
 - (c) iteghite → iteighite ‘nine’
 - (d) èzi → eizi ‘compound’
 - (e) èsè → eisè ‘Traditional dance performance in honour of a deceased man’
 - (f) enyi → einyì ‘friend’
 - (g) eze → eize ‘king’
 - (h) èkpè → eikpe ‘tradiitonal masquarede ceremony’
 - (i) ègbe → eigbe ‘kite’
 - (j) èze → eize ‘teeth’

From the data presented above, we deduce that the sound change involves two vowels namely: the open, front and spread vowel /a/ gliding with the mid-close front spread vowel /i/ on one hand and the mid-closed front spread vowel /e/ gliding with the close front spread vowel/i/ translating into /ai/ and /ei/.

According to Oluikpe (1979, p.199) “Eight vowels are realized in Ngwa Igbo and they are /a,ɪ,o,u,ɛ,i,o,u/”. We present a chart below to show their positions as a way of buttressing our subsequent observations of the data.

Fig 1: Phonemic vowel chart of Ngwa Igbo



From the data presented in 1 and 2 above, we observe as follows:

- (i) The sound change process involves only two vowel combinations in each case which divide neatly into the +ATR /ei/ and –ATR /aɨ/ groups of vowels in Ngwa Igbo.
- (ii) The process suggests “closing diphthongization” (cf. Donwa-Ifode, 1995) which involves a movement or gliding from a more open or less closed position to a more closed position as can be seen in the arrow moving from open position to close position.
- (iii) The sound change process involves low to high vowel gliding where the first element is a low vowel and the second a high vowel in the each of the two cases.
- (iv) The two vowels in each case are front vowels in Ngwa Igbo and thus keep close proximity to each other which makes for the gliding process as can be seen in fig 1.

These observations are schematically presented in the charts below:

Fig 2: Vowel chart showing [aɨ] sound change process

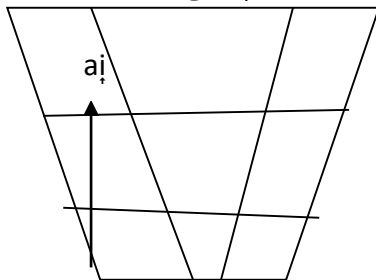
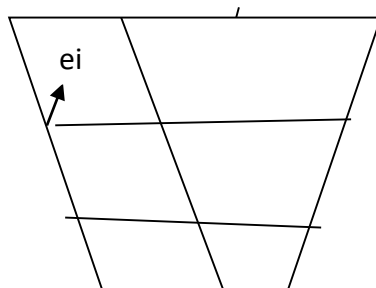


Fig 3: Vowel chart showing [ei] sound change process



In defence of this process as a sound change, we take recourse to the criterion as enunciated by Murray (1997) thus: “A striking fact about sound change is its regularity and systematicity.” We observe that there is a regular nature of the occurrence of the sound changes as in 1 and 2 above. The regularity shows in the position of occurrence. So, in all of the samples where this sound change is perceptible in the illustrations above, we observe

that the vowels /a/ and /e/ occur in either initial or medial positions. We observe initial positions of occurrence as in 1 (b), (i), (k) as well as 2 (a), (d), (e), (f), and (g)-(j). The medial positions of occurrence are as in 1 (a), (c-h) as well as in 2 (a-c).

We further observe regularity in terms of their harmonic combinations. For this reason, we observe that they are “harmonic (assimilatory) process” which according to Murray (1997) is a form of diphthongization triggered by a following vowel or consonant. We assume that the original pure vowel breaks into two segments, and the first segment matches the original vowel and the second segment is harmonic with the nature of the triggering vowel or consonant. The first element of the sound change we suspect, is the original vowel (/a/ or /e/ in Ngwa Igbo) and the second element is harmonic (/i/ or /i/) with the triggering original vowel, i.e. obeying the vowel harmony principle obtainable in Igbo and indeed Ngwa Igbo. It is our assumption that this process is a form of conditioned diphthongization in Ngwa Igbo.

Similarly, we observed regularity in the triggering conditions which lead to initial and media occurrence of the sound change. We suspect that the triggering conditions are when there is two consonants and the original pure vowel is found in-between them and this condition gives rise to a medial position of occurrence as in 1 (a) and secondly when the pure vowels (/a/ and /e/) are found initially thereby leading to first position of occurrence as in 1 (b) and 2 (d).

Drawing from the observations on the regular nature of this sound change as presented above, we are inclined to question whether it could be a case of diphthongization. One may be quick to throw out the argument that the sound change is not diphthongization on the premise that it is held that linguistic tendencies show that younger speakers or language users are tended to using simpler and less sophisticated aspects of language (Wolfram and Fasold, 1974, Hudson, 1998,) and that diphthongization may depict sophisticated aspect of language use. It is pertinent to observe that studies on language variations occasioned by social differences tend to argue that the tendencies of younger speakers or language users could be dual in terms of tending towards using simpler aspects (Hudson, 1998, Agbedo, 1991, 2001) and tending towards using ‘what may be considered sophisticated aspects’ (Bebbie, 2002, Enete, 2008, Akaan, 2006). The deciding factor is some ‘peculiar linguistic condition’ in any language. Again, we suspect that the sound change does not depict what may be considered ‘sophisticated use of language’ or language aspect considering the fact that the sound change underpins harmonic process which is a fact of the Ngwa Igbo irrespective of the user of the dialects.

Some observations lend support to our assumption that the sound change may be an ‘evolving diphthongization’. The idea of ‘evolving’ stems from the fact that diphthongization is said to be realized in a language going through stages. McGregor (1996) submits that diphthongization may result from alterations induced by language users in different phonetic environments and may be observed in stages. He continues that “for instance in the English where [i:] became [əi] during the Great vowel shift- which subsequently became [ai]”.

In support of our evidences in the speech forms of younger speakers of the Ngwa igbo, Murray (1997, p. 315) opines thus:

The inevitability of language change is guaranteed by the way in which language is 'handed-down' from one generation to the next. Children do not begin with an intact grammar of the language being acquired but rather must construct a grammar on the basis of the available data.

He further alludes to our evidences of the diphthongization process in Ngwa Igbo thus: "In such a situation, it is hardly surprising that differences will arise, which may begin as only alterations and eventually gain currency and transferred one from one generation to the next..."(underlining ours). More so, another way of alluding to our assumption of the sound change as diphthongization is that while the older generation speakers of Ngwa Igbo and indeed Igbo language epenthesize a vowel in between a consonant cluster, the younger speakers may tend to alter a monophthong by gliding them to another monophthong to realize what may be described as diphthong.

Summary and Conclusion

This study investigated a sound change pattern in the speech of some young speakers of the Ngwa dialect of Igbo where in some words, there is 'vowel gliding' involving the pure vowels (monophthongs) /a/ and /e/ and their front harmonic counterparts /i/ and /i/ respectively resulting to [ai] and [ei]. A structured interview using tape recorder and wordlist was used to collect data from a randomly chosen 50 informants involving pupils and students in secondary schools in Ngwa. Analysis of data revealed that the sound change is regular (a major criterion for sound change) in the speech of some young speakers in terms of place of occurrence, triggering condition and harmonic combinations. In terms of place of occurrence, we observed that in the words where the sound change is perceptible, it occurred in initial and medial positions only. This is related to the triggering condition in that when the pure vowel is found in-between two consonants, the condition leads to medial occurrence and when the pure vowel is found initially, it occurs initially as well. The first element of the sound change we suspect, is the original vowel (/a/ or /e/ in Ngwa Igbo) and the second element is harmonic (/i/ or /i/) with the triggering original vowel, i.e. obeying the vowel harmony principle obtainable in Igbo and indeed Ngwa Igbo.

We suspect that the sound change may be diphthongization in line with the views/observations of scholars/authors on diphthongization in language which we have shown to lend credence to our assumption. The study concludes that the sound change is not yet common by which we mean that it does not apply to all young speakers of the dialect and indeed not obtainable in all words where the vowels (/a/, /e/) occur in the dialect hence may be categorized as an 'evolving diphthongization' which may gain currency over time. We recommend further analysis to buttress our claims and or re-analysis of this sound change in future as the process keeps evolving.

References

- Agbedo, C.U (1991). Linguistic correlates of social differentiation in *Enugu-Ezike* speech community. *Masters Dissertation, Department of Nigerian Linguistics, Igbo and Other Nigerian languages, University of Nigeria, Nsukka.*
- Agbedo, C.U. (2001). *Linguistic variation and change in Igbo: A quantitative approach.* Nsukka. ACE Resources Konsult.
- Akaan, S.S. (2006). An investigation into linguistic variation in Tiv. *Masters Dissertation,*

Department of Nigerian Linguistics, Igbo and Other Nigerian languages, University of Nigeria, Nsukka

- Bebbie, K. (2002). Language variation in the speech of old and young in Indonesia sub-bubs. *Language variation studies*, 2, Pp7-21
- Coleman, K.(2000). Diphthongization: What is happening in phonetics? Assessed from www.researchgate/ebooks.org, on 12th November, 2017.
- Diphthongs (n.d) assessed from <https://www.thoughtco.com/diphthong-phonetics-term-1690456> on 12th November, 2017.
- Diphthongs (n.d) assessed from www.wikipedia.org/diphtongization, on 12th November, 2017
- Dobrovolsky, M and Katamba, F. (1997). Phonetics: The sounds of language. In W. O’Grady, M. Dobrovolsky and F. Katamba (Eds). *Contemporary linguistics: An introduction*. Edinburg: Longman
- Donwa-Ifode, S. (1995). *Basic phonetics*. Port Harcourt: Sunray Publications
- Emenanjo, E.N. (1978). *Elements of modern Igbo grammar*. Ibadan: University press
- Emenanjo, N.E. (2015). *A Grammar of Contemporary Igbo: Constituents, features and processes*. Port Harcourt: M&J Grand Orbit and Linguistic Association of Nigeria.
- Enete, A.N (2008). Linguistic variation and change in Edem: A quantitative approach. *Masters Dissertation, Department of Nigerian Linguistics, Igbo and Other Nigerian languages, University of Nigeria, Nsukka*
- Gimson, A. (2012). Sound system of English. Assessed from www.researchgatebooks.org, on 12th November, 2017.
- Hudson, R. A. (1980). *Sociolinguistics*. Cambridge: Oxford University Press.
- Labov, W. (1975). The quantitative study of linguistic structure. In K. H.Dahlstedt (Ed). *The Nordic languages and modern linguistics*. Stockholm: Almqvist and Wiksell, 188 – 244.
- McGregor, W.B. (2009). *Linguistics: An introduction*. New York: Continuum publishing
- Nwaozuzu, G.I (2008). *Dialects of the Igbo language*. Nsukka: UNN University Press
- Murray, R.W (1997). Historical Linguistics: The study of Language Change. In W, O’Grady, M. Dobrovolsky & F. Katamba (Eds). *Contemporary Linguistics: An Introduction*. Edinburg: Pearson Education
- Oluikpe, B.O.A (1979). *Igbo transformational syntax: Ngwa dialect example*. Onitsha: Feb Educational
- Wolfram, W. and R. W. Fasold (1974). *The Study of Social Dialects in American English*. Englewood Cliffs: Prentice Hall Inc.