International Journal of Language and Linguistics

2021; 9(6): 334-343

http://www.sciencepublishinggroup.com/j/ijll

doi: 10.11648/j.ijll.20210906.17

ISSN: 2330-0205 (Print); ISSN: 2330-0221 (Online)



Edo Orthography: The Compelling Need for Harmonization and Standardization

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To cite this article:

Victor Edosa Omozuwa, Osaigbovo Obed Evbuomwa. Edo Orthography: The Compelling Need for Harmonization and Standardization. *International Journal of Language and Linguistics*. Vol. 9, No. 6, 2021, pp. 334-343. doi: 10.11648/j.ijll.20210906.17

Received: November 22, 2021; Accepted: December 11, 2021; Published: December 24, 2021

Abstract: The earliest attempts at reducing the Edo language to writing were the singular efforts of the colonial administrators with the aim of facilitating communication with the people. Records show that the writing system of the time, and its subsequent post-colonial reviews, lack the basic criteria that characterize a good orthography and show evidences of the direct adoption of European (mostly English) writing systems for the language. This study presents primary data that include synchronic written texts by Edo writers with the aim of examining whether or not the Edo writing system (as currently used) is consistent with established principles of a good orthography. Results of the study reveal that the writings of the average Edo writer violate the orthographic principles of consistency, simplicity, accuracy, one sound-one letter/digraph, and harmonization. A phonetic-based orthographic system made up of thirty-nine (39) letters of the roman alphabet representing each of the thirty-nine distinctive sounds in the language on a one sound-one letter/digraph basis, in addition to other writing conventions, is proposed for the language. It is recommended that immediate and deliberate steps should be taken by all relevant stakeholders to halt the glaring trend of a 'free-for-all' writing system by organizing regular specialized seminars, workshops and conferences, for the purpose of harmonizing and standardizing the Edo orthography.

Keywords: Orthography, Standardization, Harmonization, Alphabet, Writing Conventions, Digraph, Sub Dot, Nasalization

1. Historical Overview

The precolonial Edo language had no writing system as we know it today. The language was reduced to writing, using the roman alphabetic system, by the singular efforts of the early colonial administrators to facilitate easy communication with the people. Naturally, they perceived what was said in Edo through the sound system of their mother tongue – the English language, as it was also the case for other Nigerian languages. This explains, largely, the inconsistencies inherent in the way these languages were reduced to writing. For instance, a phonetic sound like [3] was represented in different ways: the letter "o" in oka 'maize' fashioned after the "o" in adopt, popular dominant, etc., the digraph "or" in Ehigiator 'a personal name', Ugbor, Ekiadolor, Egbokor, 'names of Edo villages', etc. The 'or' in these names were fashioned after the sounds you hear in English words such as or, for, anchor, author, etc. This is also observed in the way the same sound [3] is rendered differently in Igbo such as the "o" in *oka* "maize", the "or" in *Okafor* 'personal name', *Agbor*, 'name of a town', and the "aw" in *Awka, Awgbu, Awkunanaw* 'names of towns' etc. Undoubtedly, the 'aw' in the last three examples were fashioned after the same letters in the English words *awful, law, paws, pawpaw, awkward*, etc.

The English orthographic system is perhaps a typical example of a system that breaches the principles of consistency in terms of one sound-one letter, simplicity, accuracy, and harmonization. This is evident in the ways the same sound is orthographically rendered differently in different words as demonstrated earlier using the sound [D] written differently in the words awful, law, paws, pawpaw, awkward, saw, or, for, anchor, author, call, etc. An orthographic system that satisfies the criteria of consistency, simplicity, accuracy, and harmonization would list the Edo and Igbo words presented earlier as: oka, Ehigiato, ugbo, Ekiadolo, Egboko, Okafo, Agbo, Ogbu, Okunano, respectively, using the "sub-dotted o", in all cases, in these languages.

In 1910, however, the Christian Missionary Society (CMS), probably based on a better understanding of the sound system of Edo, saw the need to make some amendments such as the use of the 'sub-dot' to distinguish the letters 'e' and 'o' from 'e' and 'o' respectively. They also adopted the correct tradition of not writing an 'n' after the letter for the vowel following the digraph 'mw' as in 'omwa', 'ukponmwa', evbuomwa, 'ogbonmwa', 'emwi', 'umwe', 'amwe', "omwemwe", etc.

In the 30s, Hans Melzian [3], adopted the use of a combined phonetic and orthographic symbols understood largely by Phoneticians and Linguists, hence the Dictionary was not popular among many Edo readers/writers. It is pertinent to note, however, that he correctly identified the presence of five inherent nasal consonants in Edo: the bilabial, labiodental, alveolar, palatal, and labial velar nasal consonants [m, m, n, n, and $\widehat{\eta w}$, respectively, represented orthographically as: 'm', 'mw', 'n', 'ny' and 'nw', respectively. The authors after him, including the CMS, appeared to have ignored this all-important phonetic fact by failing to represent, orthographically, the palatal and labial velar nasal consonants $[n, \text{ and } \widehat{\eta w}]$ in writing. This could be attributable to the adoption, in part, of the Yoruba orthographic system (in which the two nasal consonants are not rendered orthographically) that was the dominant writing system for languages used within the old Western Region. Thus, Edo words such as anwa, enwe, onwe, anyo, enye, inya, inye, etc., were written as awan, ewen, owen, ayon, eyen, iyan, iyen, respectively, dropping the letter "n" in the digraphs "nw" and "ny" and adding the letter "n" at the end of the word following the Yoruba writing

Different orthographic forms for writing Edo have been proposed over time. For instance, in the 80s, the digraph 'vb' was proposed to replace 'mw' as championed by late Airen Amayo and his colleagues in the University of Ibadan. According to them, words like 'Emwima', 'ukponmwa', 'ogbonmwa', 'emwi', 'umwe' and 'amwe' should be written as 'Evbinma', 'ovban', 'ukponvban', 'ogbonvban', 'evbin', 'uvben' and 'avben', respectively. The justification for this by the authors was premised on their argument that the bilabial large fricative [β], written orthographically as 'vb', is regressively nasalized to produce the labiodental nasal consonant [m], when it precedes a nasal vowel. This was welcomed with a lot of criticisms. For instance, Omozuwa [9] argued, based on experimental evidence, that the only consonant that can be regressively nasalized by a nasal vowel in Edo is the alveolar lateral approximant [1], orthographic 'r', by virtue of its very lax nature (see the acoustic tracings in Figures 1 and 2 below for [Jà] "or" and [Jã] "cover" (a hole)).

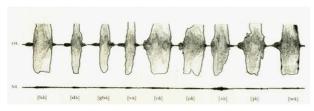


Figure 1. Nasographic tracings of Edo CV words with oral segments.

Observe the absence of waveform "vocal envelop" on the nasal line.

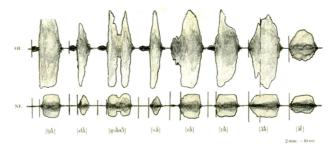


Figure 2. Nasographic tracings of Edo CV(CV) words with an oral consonant preceding a nasal vowel in each case.

Observe the absence of waveform "vocal envelop" on the nasal line for the oral consonants and the conspicuous presence of waveforms synchronized on both the oral and nasal lines for the nasal vowels.

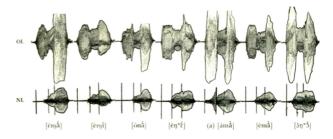


Figure 3. Nasographic tracings of Edo VCV words with an intervocalic nasal consonant between oral yowels

Observe the absence of waveform "vocal envelop" on the nasal line for the preceding oral vowel and the conspicuous presence of waveforms synchronized on both the oral and nasal lines for the vowels immediately following a nasal consonant. This shows that (i) the oral vowel preceding the nasal consonant is not regressively nasalized (ii) the oral vowel immediately following the nasal consonant is always progressively nasalized.

Indeed, phonotactically, $[\beta]$ and nasal vowels cannot constitute tautosyllabic elements in the language. In other words, nasal vowels cannot co-occur with $[\beta]$ within the same syllable. Therefore, the issue of regressive nasalization does not arise in the first place. This is also true of the approximants [j] and [w], and the alveolar lateral stop, [1].

The 1974 Seminar on Edo Orthography, organized by the then Mid-West State Ad hoc Language Committee under the auspices of the Ministry of Education, focused on, and clearly defined the status of [J] "r", [r] "rh", and [r] "rr" in writing.

A seminar was organized in 1981 at the University of Ibadan in response to the controversy that trailed late Ogieirriaikhi's "revised Edo orthography". He may have been influenced by Melzian's [3] combined use of the phonetic and the orthographic codes. It was adopted in the said seminar that the three Edo r-sounds should be distinguished in writing using the following letters: 'r', 'rh', and 'rr' for the sounds [1], [r], and [r], respectively. Melzian [3] also correctly made this distinction but with the combined phonetic and orthographic

codes. The use of these three letters has been adopted, in varying degrees, by some Edo writers.

Today, the situation appears alarming because we now seem to have as many written forms for Edo as we have writers. The consequence of the errors of writing inherent in many Edo written texts is capable of misleading the teachers, the young learners, and other interested foreigners who may want to learn the language. This may have prompted Omo N'Oba N'Edo, Uku Akpolokpolo, Oba Erediauwa CFR, Oba of Benin, of blessed memory (Oba gha to, o kpeere! Ise! "long live the King. Amen") to make a pronouncement while commenting on the report of the Rev. Usuanlele's Committee on the standardization of the Edo orthography on the 6th of June 1990, that "whoever was writing should know that he/she was not writing Edo only for himself/herself. He/she was writing for the Benin people as well as the foreigners who would want to study the language. They should be given the standard Edo." This was an obvious reference to the orthographic forms adopted by late Dr. O. S. B. Omoregie in his books which revealed clear examples of a writing system that deviated in many ways from the norm.

In 2007, a three-man Committee under the chairmanship of Dr. V. E. Omozuwa was inaugurated to review Dr. Osaren S. B. Omoregie's New Method Edo Series: Edo Language Course for UBE (Universal Basic Education) – Weekly Work Plan and the Instruction Manuals [6]. The Committee observed that many words were, indeed, wrongly spelt. For instance, Evbagbenren "that which was written" was misspelt as Evbagbein (to distinguish it from Evbagben (habitual)); utalawe as utanlawe, and many others. The author, in the New Method Edo Series, consistently avoided the use of tones to distinguish words which contrast minimally. Instead, unconventional ways of making such contrasts were devised, as evidenced in the examples on pages 1, 2, 4, 12, 17, 18, 20, 32, etc., of the Weekly Work Plan, and in all his Edo Manuals. This is in total disregard of the recommendations earlier made by the Rev. Usuanlele's Committee in their June 6th, 1990 Report. In this report, comments were made in respect of the way the author was writing Edo. In particular, his non-use of tones to distinguish meanings in words, the use of double consonants between vowels in writing some words were some of the problems highlighted. The arbitrary use of some vowels to mark length and tonal distinctions was also pointed out as seen in the following examples: Ussi, Usi; Oree, Ore instead of ùsi, ùsì; òré, óré respectively, since they are minimally distinguished by tones and not by consonants. Other examples are Etein instead of Eten; Ekpou instead of Ekpò "pocket" since it minimally contrasts with Ekpó "space". Similarly, ouko, okko, oko; ougba, ogba; ukpou, ukpo; okpa, oukpa etc. The correct forms are ókò, òkó, òkò; ógbà, ògbá; ùkpó, úkpò; okpà, okpá, respectively.

The Omozuwa 2007 led Review Committee affirmed that it was not able to recommend the books presented by the author for review as teaching manuals for Edo in the Primary and Junior secondary schools in their present condition. The Committee was, however, favorably disposed to recommending the books for teaching the language at the

levels specified provided the corrections suggested were fully carried out. However, the curriculum prepared by the Edo State Ministry of Education for the Edo language simply ignored these recommendations as these books are still being used in our schools, till today, in the unedited versions.

Since the 12th-16th February, 2018 Edo Language Seminar organized by the Edo State Ministry of Education for Teachers in Public Primary and Secondary Schools in Edo South, and the Conference organized by the Benson Idahosa University Center for Edo Studies on 31st march, 2019, there has not been, to our knowledge, any other serious attempt to bring together a wide range of stakeholders to deliberate on the harmonization and standardization of the orthography of the language. The Linguistic Association of Nigeria (LAN) Conference held in Benin City on February, 1-5, 2021, presented another unique opportunity to address the thorny issues of the inconsistencies in the Edo orthography.

2. The Compelling Need for the Standardization and Harmonization of the Edo Orthography

A call for standardization and harmonization presupposes that there is avoidable disjuncture in a particular system of representation, in this case, the orthographic representation of the Edo sounds. A cursory survey of all the available written texts/expressions in the language reveals, out rightly, that there exist as many different orthographic renderings of an Edo expression/utterance as the writers. In some cases, the differences are so much that one begins to wonder whether the written forms are in the same Edo language. In other words, it would appear that every Edo writer believes he/she can write the language as it suits him/her. For language experts, this is not a healthy situation and, therefore, calls for a timely logical remediation. Consider the following:

1.

- (i) (a) *Ise logbe, ogbema vbe dia ru (b) *Iselogbe o ogbe mavbediaru (c) *Iselogbe, ogbe mavbe diaru (d) *Iselogbe! Ogbe ma vbe dia ru*! (e) *Iselogbe! Ogbe ima vbe dia ru!*
- (ii) (a) *Uruese (b) *Uwese (c) *uwese (d) * waghuese (e) Urhu ese (f) *U ru ese (g) Uru ese
- (iii) (a) *Eniwaren(b) *Eniwanren (c) *Eniwaen (d) *Eniwanen (e) Eninwaren
- (iv) (a) *Man hoen (b) *Ma hoen (c) *Ma honren (d) Ma honren
- (v) (a) *Etenmwen noghan, wa gha gben eniuwa yo na ya ren omwan noguan
- (b) Etenmwe ni ghaan, wa gha gben eni uwa yo ne a ya reen omwa n'oguan
- (c) Etenmwe ni ghaan, wa gha gben eni uwa ye ore ne a ya gha reen omwa ne o guan
- (vi) a) *otenmwen novbie Edobor (b) *otemwen novbi Edobor (c) *otenmwen n'ovbi Edobor (d) *otemwe n'ovbi Edobo (e) otenmwe n'ovbi Edobo (f) otenmwe ne ovbi Edobo
- (vii) (a) *Oba to kpere! I se!!(b) *Oba tor kpere! ise!!(c) *Oba a to kpere! Ise!!

- (d) *Oba gha to kpere! Ise!!(e) *Oba gha tor kpere! Ise!!(f) *Oba gha to, O kpere! Ise!!(g) *Oba gha to, O kpeere! Ise!!(h) Qba gha to, Q kpeere! Ise!!(i) Qba'a to, 'kpeere! Ise!!
- In 1 (i)-(vii) above the starred expressions are incorrectly rendered orthographically by different Edo writers whereas those in italics are the correct written forms.

2.1. The Inconsistences in Edo Written Forms

Some of the major reasons for the inconsistencies in the Edo writing system are attributable to the following:

2.1.1. The Non-use of Sub-dots

Sub-dots are used to distinguish, in writing, between the sounds [e] and $[\epsilon]$ on the one hand, [o] and [o] on the other hand: e and e, o and o respectively. The non-use of sub-dots can only be compared to a writer who did not cross his/her "t"s or dot his/her "i"s. This convention is not applied, and indeed, taken for granted by many Edo writers in distinguishing between words such as:

2. ęse/ese, ębe/ebe, ędo/edo, ęko/eko; oko/oko, ęvbo/evbo, ękpo/ekpo, etc. This makes reading such texts very cumbersome. Sub-dotting is, therefore, not a matter of choice.

2.1.2. The Use of "or" Instead of "o"

Many writers use the "or" graphemes instead of "o" in Edo proper names such as:

3. (i) Ekiadolor, Ekhator, Obakpolor, Edokpolor, Edobor, Isibor, and etc., to represent the sound [3]. This is not appropriate in a standardized orthography. It breaches the principle of "one sound-one letter", and the principle of "consistency". Consequently, for the purpose of standardization and harmonization, these proper names should be written as: (ii) Ekiadolo, Ekhato, Obakpolo, Edokpolo, Edobo, Isibo, respectively.

2.1.3. The Non-use of the Negative Marker "i" in Writing

There is also the general non-utilization of the negative marker in written Edo utterances. Consider the following examples:

4. a) *'Agbonmekuegbe' [àgbɔ̃mεkwégbé] "Humans are not envious of each other"

instead of:

- b) Agbonimekuegbe [àgbɔ̃ímɛ̃kwégbé] "humans are envious of each other"
 - 5. a) * 'Aganmwonyi' [àgầmɔjî] "barrenness is glorified" instead of:
 - b) 'Aganimwoyi' [àgầímɔ̃jî] "barrenness is not glorified"
- 6. a) * 'Evbarunegbefo' [èβàɹúnégbé!fó] "One good turn does not deserve another"

instead of:

- b) 'Evbarunegbeifo' [èβàJúnégbéifó] "One good turn deserves another"
- 7. a) * 'Efemwekieke' [$\hat{\epsilon}$ fè $m\tilde{\epsilon}$ kjêkè] "It's too late to acquire wealth"

instead of:

- b) 'Efeimwekieke' [EfeimEkjêke] "It's never too late to acquire wealth"
 - 8. a) * 'Okhionkpamwoyi' [òxjɔkpàmjɔji] "A loner has

respect" instead of:

- b) 'Okhionkpaimwoyi' [òxjɔkpàímjɔjî] "A loner has no respect"
 - 9. a) * 'Uwulekhue' [ùwúlĕxwê] "Death spares one" instead of:
 - b) 'Uwuilekhue' [ùwúiléxwê] "Death spares no one"

The sound-letter correspondence in 4. a) above is illustrated below in Figure 4:

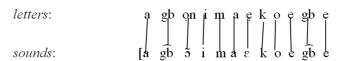


Figure 4. Sound-letter representation on a one sound-one letter correspondence.

This gives the phonetic output: [àgbɔ̃ímɛ̃kwégbé] after the phonological processes of vowel elision, glide formation, nasal, and tonal assimilation have acted on the base form represented above.

2.1.4. The Use of the Redundant Orthographic "n"

The incorrect inclusion of 'n' after the vowel immediately following the digraph 'mw' which represents the inherent nasal consonant [m] is also clearly observed in some written forms of Edo. The digraph 'mw' represents the labio-dental nasal consonant [m] in writing. The presence of the grapheme 'n' after the oral vowel that immediately follows the digraph makes it inconsistent with the way vowels should be orthographically represented after a nasal consonant. This follows from the phonetic fact that any oral vowel immediately following any of the five inherent nasal consonants, [m], [m], [n], and $[\widehat{\eta w}]$ is automatically nasalized through the process of progressive nasal assimilation (Omozuwa [7, 9, 14]). Indeed, the phonological phenomenon here is that of neutralization of the distinctive opposition: oral versus nasal vowels after a nasal consonant. In other words, it is not possible to contrast, minimally, the seven oral vowels with their corresponding nasals immediately after any of the five nasal consonants in the language: in this position, only a nasalized segment can occur being the result of the nasal spread of the preceding consonant onto the following oral vowel. The five inherent nasal consonants in Edo: [m], [m], [n], [n], and [nw] written as "m", "mw", "n", "ny", and "nw", respectively, belong to the same natural class. Thus, the rule that affects one naturally affects

The phonemic oral/nasal contrasts abound in Edo in the context of oral consonants other than the semivowels (glides) [j] and [w], and the large fricative $[\beta]$ as evidenced in the following examples:

- 10 a) [kɔ] ko "plant" (vb) [kɔ] kon "be stupid"
- b) [dà] da"drink" [da] dan "flip off"
- c) [tà] ta "say" [ta] tan "grow up"
- d) [si] si "pull" [si] "filter" (vb)
- e) [ɣã] ghaa "divide/share" [ɣã] ghaan "be expensive/be dear to"
 - f) [să] saa "burst" [sã] saan "jump"

- g) [kpǎ] kpaa "lift" [kpã] kpaan "pluck"
- h) [kǎ] kaa "dry" [kã] kaan "drive (nail down)"
- i) [bă] baa "glow (of light)" [bã] baan "avoid"
- j) [ḡbǎ] gbaa "know someone inside out" [ḡbã] gbaan "deflect"

All the nasal vowels in the examples above are *inherent* nasal vowels. However, the oral-nasal contrast is not possible after the semivowels [j] and [w] as seen in the examples below:

- 11 a) [ji] yi "enact (law) *[jī] *yin?? but [nī] nyi "pinch"
- b) [wu] wu "die" *[wũ] *wun??
- c) [ja] yaa "go and ..." *[jã] yaan?? but [ɲã] nyaa "own"
- d) [woo] woo "press" *woon?? but [ŋwɔ̃] nwo "drink"

Logically, therefore, if *yin, *yen, *yan, *wan, *won, etc., are non-attestable forms in Edo, it follows naturally that iyin, iyen, iyan, awan, owon, etc., are also malformed. These phonetic forms and their orthographic renderings are present in the Yoruba Language in names such as [tojī] "Toyin", [adedojī] "Adedoyin", [akīlawɔ̃] "Akinlawon", etc. Edo "lost" the digraphs, "ny" and "nw", when "inya", "enye", "onwo", and others, were now written as "iyan", "eyen", "owon", etc., following the Yoruba writing system.

It is observed from written materials in Edo that many writers indiscriminately add the letter "n" after the vowel which immediately follows the letters representing any of the five inherent nasal consonants thereby breaching the rule of open syllabicity in the language. The Edo personal names in which the grapheme 'n' is redundantly written after the oral vowel that immediately follows the digraph 'mw' include the following:

- 12 a) 'Adanihomwan' /adanih ɔ man/=> *[adanihɔman] instead of:
- b) 'Adaanihomwa' / ádǎníh ɔ ma/=> [ádǎníhɔ́mâ] 'mutual respect''
- 13) 'Agbonghamamwan' /agbɔ̃γamamā/=>
 *[agbɔ̃γamaman]
 instead of:
- 'Agbonghamaamwa' /agbɔ̃γamama/=> [agbɔ̃γamama] "life will be better for us"
- 14) 'Osasinmwinomwan' /osasimin o ma/=> *[osasiminn oman] instead of:

'Osasinmwiomwa' /òsàsìmjinjma/=> [òsàsìmjinjma] "It is God that protects one"

The name 'Osasinmwinomwa' [òsàsìminɔma] "it is God that appropriates for someone" also exist in the language.

'Oghionmwanghaghomwan'/oɣiɔ̃nmãnyay ɔ mã/=>*[oɣjiɔ̃m anɣaymãn] instead of:

'Oghinomwaghaaghomwa'/oqiɔmãqaqəmã/=>
[oqiɔmãqaqəmã] "when one's enemies' eyes are on one..."

As seen from the examples in 12-15 above, the addition of the redundant letter "n" after the vowel that follows a nasal consonant renders the last syllable of the words as a closed syllable. This is similar to the way some writers wrongly represent omo, emo, ima, ena, ona, eni, etc., orthographically as *omon, *emon, *iman, *enan, *onan, *enin, respectively.

Phonetically, these "words" would be pronounced *[DmDn], *[emDn], *[iman], *[enan], *[onan], and *[enin], respectively, similar to the pronunciation of the English words [mæn], [mɛn], [mun] and [mæntl]. This is far from the phonetic reality in Edo.

It is important to note at this juncture, that, as stated earlier, the Bible Society of Nigeria's [1] revised edition of the Edo translation of the Holy Bible correctly dropped the redundant grapheme 'n' after the oral vowel that immediately follows the digraph 'mw'.

2.1.5. Absence of Appropriate Letters of the Alphabet to Represent the Palatal and Labial-velar Nasal Consonants [n] and [nw] in Writing

In the current Edo orthographic system, the absence of appropriate letters for the palatal and labial-velar consonants [n] and $[\widehat{\eta w}]$ appears to be one of the serious lapses in the system. In this regard, the principle of "one-sound one -letter/digraph" has not been observed. It is proposed in Omozuwa [15] and subsequent publications to date, that the use of the digraphs 'ny' and 'nw' be reintroduced as the appropriate orthographic markers for the two sounds following Melzian [3], Munro [4]. This effectively harmonizes them with the way the same phonetic sounds are represented orthographically in the neighboring Ika, Ukuani, Igbo, and some other languages in Southern Nigeria. The examples below are instances where the Edo palatal nasal [n], similar to the nasal consonant in the Igbo word [ánā] 'anya' (eye), is appropriately rendered orthographically, following the principle of 'one sound-one letter/digraph':

- 16) /ɔnɛmɛ/=> [ɔnɛ̃mɛ̃] 'Onyemwe' "contentment/happiness" currently wrongly rendered orthographically as: 'oyenmwen' *[ɔjɛ̃mɛn].
- 17) /ina/=>[ina] 'yam' currently wrongly rendered orthographically as: 'iyan' *[ijan].
- 18) /ádàgbɔ̃ni/=> [ádàgbɔ̃ni] 'Adagboonnyi' 'one's investments in life determine how one lives' currently wrongly rendered orthographically as 'Adagbonyin' *[ádàgbɔnyin].
- 19) /ɛɲɛ/=> [ɛyɛ̃] 'e̞nye̞' "snake" currently inappropriately rendered orthographically as 'e̞ye̞n' *[ɛɲɛn].
- 20) /imúɛtîɲǎ/=> [imúɛtîɲã] 'Imuetinnyaa' "I have faith in..." currently wrongly rendered orthographically as 'Imuentinyan' *[imúɛntinjã].

The examples below are instances where the Edo labial-velar nasal [ŋw], similar to the nasal consonant in the Igbo name [nyweme] "Onwueme", is appropriately rendered orthographically in this paper, when the principle of "one-sound one-letter/digraph" is applied:

- 21) /ɛŋ͡waɛɔsiha/=> [ɛŋ͡waɛɔsihâ]=> [ɛŋ͡waɔsihâ] 'Enwaenosiha' "common sense is superior to divination" incorrectly rendered orthographically as 'Ewaen-Osiha' *[ɛwaɛ̃ɔɔsiha].
- 22) /ɛŋw̄aɛɔsetī́/=> [ɛŋw̄aɛ̃ɔsetī́]=> [ɛŋw̄aɔsetī́] 'Enwaenosetin' "common sense is superior to might" incorrectly rendered orthographically as 'Ewaen-Osetin' *[ɛwaɛ̃ɔsetī́].
 - 23) /ànwabo]=>[ànwãbo] 'Anwabo' "Foresight comes with

maturity" incorrectly written as 'Awanbor' *[áwabor.

- 24) /àiŋwãfo/=> [àiŋwãfo] 'Ainwafo' "one cannot know all" incorrectly written as Aiwanfo *[àiwãfo].
- 25) /úŋwàgùε/=> [úŋwagwùε] 'Unwague' "an Ḥdo palace title" incorrectly written as 'Uwangue' *[uwagwuε].

2.1.6. Absence of the Letter 'n' of 'na'/'ne' after 'in', 'en', 'an', 'un', 'on' in Some Words/Names

The letter 'n' of 'na' and 'ne' after the digraphs 'in', 'en', 'an', 'un', 'on' representing the five inherent nasal vowels $[\tilde{\imath}]$, $[\tilde{\epsilon}]$, $[\tilde{a}]$, $[\tilde{u}]$, and $[\tilde{\eth}]$ respectively, is absent in the written forms of some Edo names. In such cases, the words/names become meaningless or acquire a meaning that was not intended as evidenced in the examples below:

- 26) /igbìnéwéká/=> [igbìnéwéká] 'Igbinneweka' "I seek the protection of (Oba) "Eweka" incorrectly written as *'Igbineweka' [igbìewéká] "Eweka's seed yam(s)".
- 27) /ìgbìnósà/=> [ìgbìnó!sà] 'Igbinnosa' "I am under the protection of God" currently incorrectly written as 'Igbinosa' [ìgbîòsà] "God's seed yam(s)"
- 28) /ìgbìnɔ́bá/=> [ìgbìnɔ́bá] 'Igbinnoba' "I am under the protection of the King" incorrectly written as 'Igbinoba' [ìgbì́ɔ́bá] (the King's seed yam(s)).
- 29) /ìgbìnɔ́vìà/=[ìgbìnɔ́!vjâ] 'Igbinnovia' "I am under the protection of the ovia deity" incorrectly written as 'Igbinovia' [ìgbîɔvjá] "Ovia's seed yam(s)".
- 30) /ìgbìnógu/=> [ìgbìnó!gú] 'Igbinnogun' "I am under the protection of the god of iron" incorrectly written as 'Igbinogun' [ìgbíògú] "the god of iron's seed yam(s)".

2.1.7. The Use of a Single 'r' Instead of the Double 'rr' or 'rh' (Digraphs), or Verse Versa for the Voiced and Voiceless Alveolar Trills [r] and [r] Respectively

The Edo language distinguishes between three r-sounds: the alveolar lateral approximant [1], the alveolar voiced trill [r], and the alveolar voiceless trill [r]. Logically, the three sounds should be represented differently by the three orthographic symbols: 'r', 'rr' and 'rh', respectively. Currently, in many cases, this distinction is not reflected in the written forms of many Edo personal names as seen in the examples below:

(a) The letter 'r' instead of the digraph 'rr'.

The Edo names below are wrongly written with the single letter 'r' instead of the digraph 'rr', consequently rendering the name meaningless:

- 31) 'Orobosa' *[Jióbó!sà] (meaningless) when phonetically transcribed instead of 'Orrobosa' [Jróbó!sà] (He/it is in the hands of God).
- 32) 'Iriowengiasi' *[iljówɛ̃ígjásî] (meaningless) instead of 'Irrionweigiasi' [irjó!ŋ͡wɛ̃ígjásî] 'the rays of the sun cannot be pulled'.
- 33) 'Iyare' *[ìjá!Jè] instead of 'Iyarre' [ìjá!rè] 'Safe journey'.
- 34) 'Uhunamure' *[ùhùámű!Jé] "it is head one carried to eat" (lit) instead of 'Uhunnamurre' [ùhūnāmū!ré] 'One's destiny'.
- 35) 'Uwarobosa' *[ùwàJóbó!sà] 'wealth is the hands of God' instead of 'Uwarrobosa' [ùwàróbó!sà] 'wealth is in the hands of God'.

(b) Writing the letter 'r' instead of the digraph 'rh'.

The examples below illustrate instances where Edo names are wrongly written with the single letter 'r' instead of the digraph 'rh'.

- 36) 'Airiagbonaye' *[àiɹjâgbɔ̃ajé] instead of 'Airhiagbonnaye' [àírjâgbɔ̃näjé] "you don't destroy the world you live in".
- 37) 'Agbonriare' *[àgbɔ̃ljálê] instead of 'Agbonrhiare' [àgbɔ̃rjálê] "the world is spoilt".
- 38) 'Airiana' *[àíɹjánã] instead of Airhiana [àírjánã] "this is not to be spoilt/wasted".
- 39) 'Erokpadamwen' *[èɹɔkpàdámśn] instead of Erhokpaidamwe [èrɔkpàidamśe] "no regrets".
- 40) 'Imaguomwanruo' *[ìmấgwɔ́mãnwɔ́] instead of 'Imaguomwaarhuo' [ìmấgwɔ́mãrwɔ́] "I did not boast to any one".
 - (c) The digraph 'rh' instead of the single letter 'r'.

Instances of the wrong use of the digraph 'rh' instead of the single letter 'r' in some Edo names are to be found in Omoregie [5] as seen below:

- 41) 'Erhinmwinbo' *[ɛˈrĩm)inbɔ́] instead of 'Erinmwibo [ɛ̃lĩm]ibɔ́] "the heavens do favour one".
- 42) 'Erhinmwinhe' *[ἐκἶη)ìnhé] instead of 'Erinmwihe' [ἐκἶη)î!hé] ''the heavens have refused/rejected''.
- 43) 'Erhinmwingbovo' *[Erimmigbovo'] instead of 'Erinmwiigbovo' [Erinmwiigbovo'] "the heavens are not envious of anyone".
- 44) 'Erhinmwinorose' [Eriminorose] instead of 'Erinmwiorose' [Elimiorose] "the heavens are witnesses".
- 45) 'Erhinmwinoghae' *[ἐτ̞im)nολγὰέ] instead of Erinmwioghae [ἐτ̄im)ολγὰέ] "the heavens control the affairs of men".

2.1.8. The Intrusive [n] Heard in the Wrong Pronunciation of Some Names

Some Edo speakers, especially the younger generation, pronounce these two names wrongly: Agbonifo and Agbonanyiima rendered as *[àgbɔ̃nifó] and [àgbɔ̃nim̃a] instead of [àgbɔ̃nifó] and [àgbɔ̃nim̃a], respectively. These are instances where such speakers confuse sounds with letters. A one-sound, one-letter representation based on phonetic spelling illustrates this phenomenon:

46)

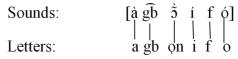


Figure 5. Sound letter representation showing the "intrusive" [n] as a unit of the digraph "on" in writing but phonetically the single sound $[\tilde{j}]$.

It could be seen from the representation above that the intrusive [n] in the wrong pronunciation above belongs to the digraph "on" realized as a single phonetic sound [3]. The name Uhunmwu a rhaa obo na=> uhunarhaabona also belongs to this group. It should also be noted that vowels co-articulated with a distinctive Rising tone (on verbs) or derived Falling tone resulting from a Low tone immediately following a High

tone are marked orthographically with double like vowels as in [să] "saa" (burst) and /ókpè/=> [ókpê] "okpee" (flute).

2.2. Causes of the Inconsistencies in the Edo Written Forms

The reasons for the inconsistencies in the Edo written forms include but not restricted to the following:

- i). Written Edo, as it is also the case with many other indigenous Nigerian languages, was introduced by the British colonialists, majority of whom were non-trained Linguists. Expectedly, the roman alphabetic system as opposed to other forms of writing such as the Chinese ideographic system or the Japanese syllabary system (epitomized by the *Katakana* and *hiragana* scripts) was introduced.
- ii). The Edo sounds (*ABiDi*) were, therefore, fashioned after the English *ABiCis* (letters). In other words, except for a few additions, the sounds in Edo are presumed to be the same as those represented by the English *ABiCis*. This is a very wrong presumption as we shall demonstrate below. There was, therefore, no conscious effort to distinguish between *sounds* and *letters* hence the inconsistencies inherent in the Edo orthographic system as it is also the case in the English language.
 - 47) English ABiCis:

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Figure 6. The English ABCis as letters of the roman alphabet used in writing the language.

48) The incomplete Edo"ABiDi":

ABDEEFGHIKLMNOOPRSTUVWYZ

Figure 7. The Edo ABiDi (sound based) wrongly adapted from the English letter-based orthographic system.

Edo was, therefore, written using the sound-letter representation based on the English alphabet with some later modifications such as the use of sub-dots to distinguish between [e]/[ϵ] and [o]/[δ] as e/e and o/o, respectively, and the digraphs VB MW RH KH GH KP GB IN EN AN UN ON that were not accounted for in the AB*i*D*i* "song". This gives a total of 36 sounds=36 letters. The question is: where are the three other sounds that make up the thirty-nine sounds identified in Edo in Omozuwa, [16-18]?

Within the framework of the colonialist-based orthography, two sounds, [r] and [J] were represented by the single letter "r" in writing thereby breaching the principle of "one sound, one letter" which states that every relevant sound in a language should be represented by one corresponding letter: no two different sounds should be represented by the same letter. This apparent deficiency was cured by the adoption of the digraph "rr" for the alveolar voiced trill [r] while the single letter "r" was reserved for the alveolar lateral approximant [J] in the 1974 Seminar on Edo orthography as pointed out earlier. This would bring the number of sounds-letters accounted for to 37. Unfortunately, the aforesaid reform has not been imbibed by a good number of Edo writers, majority of who still cling to the use of the single letter "r" for the two sounds [r] and [J].

Indeed, many writers freely mix up the three r-sounds in writing as we illustrated earlier in this write-up.

More worrisome is the fact that two relevant sounds: [n] and $[\widehat{nw}]$ were clearly left out in the Edo ABiDi in the sound-letter representation thereby breaching the principle of accuracy which states that "all relevant sounds in a language should be accurately represented by a corresponding letter" on a one sound-one letter basis. This means that of the thirty-nine relevant sounds in Edo, only thirty-seven have been accounted for so far in the orthography.

As pointed out earlier, the absence of appropriate letters to represent the sounds [n] and $[\widehat{\eta w}]$ in the current Edo writing system is traceable to the period during which the western regional government was in control of the provinces that later became the Mid-Western region. The 1981 seminar on Edo orthography didn't seem to have addressed the issue of the corresponding letters for [n] and $[\widehat{nw}]$ that were no longer represented in the writing system. The Edo words written with "ny" and "nw" in "inya", "anyo", "enwe", "onwo" in earlier published texts (Melzian [3]; Munro [4], etc.), were written as "iyan", "ayon", ewen", and owon, respectively, similar to the way the Yoruba words such as "Toyin", "Muyinwa", "Ologbodiyan", "Olaniyan" "Akowonjon", etc., are written. It would seem that proponents of this move did not take into consideration the force of articulation difference between the Edo inherent nasals [n] and [n]w] and the Yoruba "nasalized" [j] and [w] in the examples cited. Indeed, [j] and [w] are absent in actual pronunciation in the words in which they appear in Yoruba.

iii). Teachings based on the deficiencies highlighted above are, therefore, *ab initio*, bound to have the attendant consequences arising from the original deficient input. This explains why there are as many different written forms in Edo as there are writers. The high level of inconsistencies in the Edo written forms stand the language out as one of the languages that breach virtually all the principles of a good orthography: the principles of one sound-one letter, accuracy, consistency, simplicity, and harmonization.

2.3. Phonetic Spelling

Phonetic spelling is a very reliable way of identifying the relevant sounds in a language. This method will be applied to show that the two sounds, [n] and [nw], are phonetic and phonological realities in Edo, and should, therefore, be assigned distinct orthographic symbols like the other thirty-seven sounds in the language, in this case, orthographic "ny" and "nw", respectively, should be reintroduced. Consider the following examples:

49)

[n] in: [ìna], "yam" incorrectly spelt "iyan", phonetically *[ija]

[ànɔ̃], "wine" incorrectly spelt "ayon", phonetically *[ajɔ̃] [ànã], "athletics foot" incorrectly spelt "ayan", phonetically *[ajã]

[ɛjɛ̃], incorrectly spelt "eyen", phonetically *[ɛjɛ̃]
[ùnunu], "season"incorrectly spelt "uyunmwun"
phonetically *[ujunun]

[ŋ͡w]in [àŋwa], "plier" incorrectly spelt "awan", phonetically *[awa]

[enfw $\tilde{\epsilon}$], "breast" incorrectly spelt "ewen", phonetically *[ew $\tilde{\epsilon}$]

[\hat{o} \hat{n} \hat{o}], "honey" incorrectly spelt "owon", phonetically *[ow \hat{o}]

[ìŋwina] "work" incorrectly spelt "iwina" phonetically *[iwina]

[ùmɛ̃ŋwãɹɛ̃] "sage"=>[ùmɛ̃ŋwãɛ̃] after the deletion of [ɹ] (cf. Omozuwa [8] is incorrectly spelt "umewaen" phonetically [umɛ̃waɛ̃] following the one sound-one letter principle.

The two sounds [n] and [n] and [n] cannot be represented by the letter "y" and "w", respectively, as they currently are since these letters are already used to represent the sounds [i] and [w] respectively. Doing so would mean that the principle of "one sound-one letter" is breached. Secondly, incorrect phonetic output is obtained in both cases as seen in the examples above. Hence the compelling need to reintroduce the digraphs "ny" and "nw", for the nasal sounds [n] and [n]w], respectively, following Melzian [3], Munro [4], Omozuwa [7, 15, 16, 17], etc. This will effectively make it possible to account for all the thirty-nine relevant sounds in the language on a "one sound-one letter/digraph" basis. Thus, as earlier proposed, the words $[in\tilde{a}]$, $[an\tilde{o}]$, $[an\tilde{a}]$, $[\epsilon n\tilde{\epsilon}]$, $[un\tilde{u}m\tilde{u}]$, $[an\tilde{w}\tilde{a}]$, $[\epsilon n\tilde{w}\tilde{\epsilon}]$, $[0\eta \widehat{w}\widehat{0}]$, $[i\eta \widehat{w}\widehat{1}n\widehat{a}]$ and $[a\eta \widehat{w}\widehat{\varepsilon}\widehat{p}\widehat{\varepsilon}]$, and $[um\widehat{\varepsilon}\widehat{\eta}\widehat{w}\widehat{a}\widehat{\varepsilon}]$ should be written as: "inya", "anyo", "anya", "enye", "unyumwu", "anwa", "enwe, "onwo", "inwina", "anwenye", "umenwaren", respectively. On a one sound-one letter representation, the examples cited earlier would be:

50)

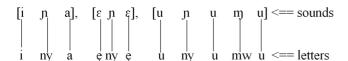


Figure 8. Shows the phonetic reality of [Ji] in Edo words represented orthographically by the digraph "ny".

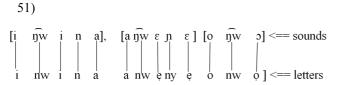


Figure 9. Shows the phonetic reality of [yw] in Edo words represented orthographically by the digraph "nw".

52)

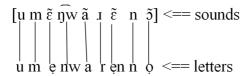


Figure 10. Illustrates the nasalization of an oral vowel by a preceding nasal consonant in Edo.

The phonological rule of progressive nasal assimilation applies to the $[\epsilon]$ and [a] in the expression $[um\tilde{\epsilon}\eta\tilde{w}\tilde{a}J\tilde{\epsilon}]$ after

the nasal consonants [m] and [$\hat{y}\hat{w}$], respectively, changing them to the nasalized vowels [$\tilde{\epsilon}$] and [\tilde{a}] counterparts. Furthermore, the rule of consonant deletion applies to delete the alveolar lateral approximant [J] Omozuwa, [8] hence the phonetic output: [um $\tilde{\epsilon}$ $\hat{\eta}\hat{w}$ \hat{a} $\tilde{\epsilon}$] in rapid speech.

2.3.1. Logical Deductions from the Data Above

It could be deduced from the data above that whereas the speech forms [w] or [j] plus oral vowels are attested in Edo, [w] or [j] plus nasal vowels are not attested in the language. Consequently, *[w $\tilde{\mathbf{J}}$] *won, *[ow $\tilde{\mathbf{J}}$] *owon, *[aw $\tilde{\mathbf{a}}$] *awan, *[j $\tilde{\mathbf{i}}$] *yiin, and *[$\tilde{\mathbf{z}}$] $\tilde{\mathbf{i}}$ *eyen, are wrongly pronounced and wrongly written forms in the language. These written forms, as argued earlier, are based on the Yoruba writing system. The claim by some analysts that [j] and [w] are regressively nasalized has been proven not to be valid. Indeed, relying on acoustic evidence, it is demonstrated in Omozuwa, [7] that the only oral consonant that is regressively nasalized in Edo is the alveolar lateral approximant [J] due to its lax and highly vocalic nature. It is also for the same reason that this consonant [J] can easily be elided in rapid speech Omozuwa [8] whereas [j] and [w] are not.

The logically appropriate, standardized pronunciation and written forms of the examples presented earlier are, therefore, $[\hat{\eta}\hat{w}\hat{\sigma}]$ nwo, $[\hat{\sigma}\hat{\eta}\hat{w}\hat{\sigma}]$, $[\hat{a}\hat{\eta}\hat{w}\hat{a}]$ anwa, $[\hat{\eta}\hat{1}]$ nyii, $[\hat{\epsilon}\hat{\eta}\hat{\epsilon}]$, enye, respectively. This way, the Edo examples here would have satisfied the simplicity, accuracy, consistency, one sound-one letter, and harmonization criteria of a good orthography.

2.3.2. Edo as an Open Syllable Language

It should be stressed that Edo, being an open syllable language, does not allow a pronounceable consonant in syllable final position. In other words, every syllable ends in a vowel. Consequently, words written as *omon, *eman and *enan are phonetically *[Jmɔ̃n], *[emãn] and *[enãn], similar to the following examples in English where pronounceable syllable final consonants are acceptable: man [mæn], can [kæn], come [kɔm]. This provides additional argument in favor of the non-use of the redundant "n" after the vowel following any of the five Edo inherent nasal consonants. Consequently, examples such as [mã] [mã], [mã], [mã], [nã], [n

It is pertinent to note here that the phonetic process of progressive nasal assimilation is absent in English but a common phonetic feature of Edo as it is also the case in other Kwa languages. This explains why oral vowels immediately following a nasal consonant is automatically nasalized in the speech of a typical Edo, and other kwa languages speaker of English as evidenced in the following examples: [mæn]=> [mæn], [mæd]=> [mæd], [nAt]=> [nɔt] and [makɪt]=> [mākɛt].

3. Recommendations and Conclusion

3.1. Rcommendations

Based on the phonetic approach adopted in identifying the

Edo speech forms, we recommend that all the thirty-nine (39) relevant sounds listed below in 53) and their corresponding letters of the alphabet (from A to Z) should be consistently used in writing the language:

53)

Sounds:	[a]	[ã]	[b]	[d]	[e]	[ε]	$[\tilde{\epsilon}]$	[f]	[g]	[gb]	[7]
Letters	A	AN	B	D	E	Ę	$\not\!\! EN$	F	G	GB	$G\!H$
Sounds:	[h]	[i]	[ĩ]	[k]	[x]	$[\widehat{kp}]$	[1]	[m]	[ŋj]	[n]	$[\widehat{\mathfrak{gw}}]$
Letters:	H	I	IN	K	KH	KP	L	M	MW	N	NW
Sounds	[n]	[0]	[၁]	[õ]	[p]	[1]	[r]	[r]	[s]	[t]	[u]
Letters	NY	O	Q	QN	P	R	RH	RR	\mathcal{S}	T	\mathbf{U}
Sounds:	$[\widetilde{\mathrm{u}}]$	[v]	[β]	[w]	[j]	[z]					
Letters:	UN	V	VB	W	Y	Z					

Figure 11. Shows all the thirty-nine Edo sounds and their corresponding letters arranged in alphabetical order.

- (ii) a clear distinction between formal and informal modes of writing Edo should be adopted. In the case of the formal mode of writing, individual lexical items and grammatical formatives, together with the tones with which they are co-articulated, should be distinctly represented n writing whereas in the case of the informal mode of writing, appropriate use of apostrophe should be ensured where the phonetic process of vowel/consonant elision has taken place.
- (iii) the Benin Traditional Council Committee on Edo Language and Culture should be revived to actively play a regulatory role, based on expert advice, in matters relating to Edo Language use at all levels of teaching ang learning in collaboration with the relevant organs of the State Ministry of Education, much like the French *Academie Française* established in 1634 by Cardinal Richelieu.
- (iv) for the purpose of uniformity, all written materials to be used in schools should be properly edited by a committee of experts so designated.
- (v) immediate steps should be taken to halt the alarming trend of the free-for-all written forms by way of organizing conferences, workshops, and seminars on a regular basis to ensure conformity with the adopted standardized conventions on the Edo written forms. The fact that everybody is writing it the wrong way does not make it right! In other words, "Just because it is (even a wrong) trend, does not mean you should follow it". Thus, the attitude and contentment of some people who usually say: "this is the way the language has always been written" amounts, in our opinion, to intellectual laziness.
- (vi) the increasing number of enthusiastic writers in the Edo language should imbibe the culture of subjecting their written works to critical review by experts in the language before going to press. Indeed, only accredited publishing houses should publish Edo books for use in the school system.
- (vii) efforts should be made by the relevant authorities and the various educational institutions to develop a formidable workforce of trained teachers in the language.
- (viii) the two distinctive tones, Low and High, in the language should be consistently represented orthographically; the Low tone marked by the grave accent / / and the High tone

by the acute accent / '/ as is conventionally used in other tone languages should be adopted.

3.2. Conclusion

It is a known fact that in any speech community, a natural language is spoken before it is written. A phonetic, evidence-based analysis is relied upon in this paper to propose a standardized orthography for the Edo language. Within this framework, every relevant sound used by the native speakers of the language is assigned a letter on a one sound-one letter basis. This effectively ensures that no two distinctive sounds are written with the same letter, and that no sound is left without a letter. The digraphs "ny" and "nw" used earlier in the history of the Edo writing system should be reintroduced and adopted to represent the palatal and labial velar inherent nasal consonants, respectively. Phonetic spelling remains the most effective method of rendering all the relevant sounds in any language in their written forms since it allows for every sound in a language to be accurately accounted for. Such phonetic based orthography is what is recommended for the Edo language as well as other African languages for the simple reason that in these languages, most of which are tonal languages, every sound is distinctly articulated with the vowels or syllabic nasals as the only tone-bearing elements, hence the nucleus of the syllable.

Written language, like spoken language, is a unique code and the property of the speech community at large. It should not be left to the whims and caprices of individual writers hence the need for every language to have a standardized and harmonized orthography based on reasoned (logical) deductions by experts from the phonetic facts of the language under consideration.

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