

## A REALISTIC ORTHOGRAPHY FOR ÒKÒ

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### Abstract

Interest in writing Òkò, a language of the Ogori and Magongo people in Kogi state, Nigeria, dates back to the 1970s. The attempts by several local speakers to produce short texts in the language is indicative of this interest; but such efforts have been marked by inconsistencies. Over the decades, a workable or accepted writing system has been difficult to evolve. Orthographies (alphabet) proposed by a few scholars have varying levels of acceptability and systematicity; some due to authors' lack of linguistic expertise in language description, while others require greater linguistic rigor to be realistic. The goal of this article, therefore, is to propose a realistic orthography for Òkò users. The work is based on over 30 years of elicited oral data, documenting different contexts of use of the language, mainly in audio and audio-visual formats. This has been followed by a careful systematic linguistic analysis (including phonological) of some of the data. It is discovered that, while the orthography is typical of the West-Benue language family under which Òkò has been classified (Ethnologue), some of the assumptions by most other authors require serious review. The findings include a sound system with 28 phonemes but 27 realistic orthographic characters.

**Keywords:** Writing, orthography, alphabet, realistic, Òkò

### 1. Introduction

Òkò language is classified as a member of the West Benue group of the Niger-Congo family (Williamson et al, 2000; Blench et al, 2004; Elugbe, 2011; Blench, 2012, Eberhard et al, 2019), of the West African sub-region. The language, spoken by approximately 40,000 Nigerians, and, like most of the others in this family (see Bodomo et al (2006); Bodomo & Abubakari (2017), is historically and genetically predisposed to the alphabetic writing system. Among the West-Benue phylum, there are languages such as Yoruba, Igbo and the 'Edo, that have established writing systems, using graphemes derived from the alphabetic system. Òkò seems to share some characteristics with this group; and this position, among other factors (such as convenience and missionary influence, enumerated in Bodomo, 2006), is cited as part of the justification for advocating the same writing system for the language, as discussed in Akerejola (2005)<sup>1</sup>. Furthermore, this position also reflects the proposition of the International Institute of African Languages and Cultures (IILAC's 1930), which recommend what they regard as the "Practical Orthography of African Languages", as a resource for evolving a writing system for West African languages, in order to maintain some uniformity. A, more recent recommendation is that of Bodomo et al (2006), who advocate a similar case for some Ghanaian languages (Dagaare and Twi of the same Niger-Congo family), with a further proposal for the development of a uniform keyboard system to boost writing in the languages.

This paper is concerned with proposing a realistic orthography for Òkò language. The word "realistic" is used to allude to the fact that there have been other sets of graphemes proposed for the language (e.g. Akerejola, 1970; Aisoni and Gabriel, 1976 - cited in Eyika, 2003; Adegbiya 1993; Eyika, 2003 and Atoyebi, 2009). These have been characterised by inconsistencies and variations, which may be some of the factors contributing to lack of uniformity in the use of graphemes in representing sounds in the language as well as the morphemic/word boundaries. The approach in this article is to probe the adequacy of such previous efforts, followed by a recommendation of a set of graphemes that would, most likely, best represent the

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<sup>1</sup> For a broad classification of African Languages, see Brend and Nurse (2000:2). Earlier suggestions of the classification of African languages include Gregersen (1977).

sound system of Ọkọ language. Thus, the fundamental question is, How can a credible and functional set of graphemes be derived for Ọkọ orthography?

First, I critically review earlier works on the proposal of the set of graphemes for Ọkọ writing. The various attempts to write the texts in the language is also examined, in order to highlight the aforementioned problems as well as the necessity for a harmonised writing system. I, then, suggest that the development of an orthography need be based on a rigorous descriptive work – of the phonological and morphological characteristics of the language – and on a systematic, rational set of principles. This review may warrant making reference to sources that date back to several decades ago. The ultimate goal, then, is the proposal of a realistic set of graphemes, based on the description of the phonology of Ọkọ. The description is based on over 30 years of data collected (including audio, audio-visual and some unpublished incidental texts). Phonemes are described using the Systemic Functional Linguistic (SFL) principles, which prioritises meaning in the description of any linguistic unit (Halliday, 1973; 1975; 1985a & b; 1994; Halliday and Matthiessen, 2004: 2014).

In addition, the conclusion reached in proposing the set of entries for the Ọkọ language alphabet, was preceded by a rigorous and two decades of continuous study of Ọkọ sound (phonological) system (Akerejola, 1985, 2005), using available language analytic technologies (including a sound spectrograph and PRAAT - Boersma, 1992) a speech analysis software). Furthermore, the decision on relevant phonological features for the graphicisation of Ọkọ has been largely enhanced by observation of adult speakers as well as the author's proficiency in the language.

## 2. Demonstration of Interest in Ọkọ Writing.

First, it would be appropriate to acknowledge that interest in writing the language has been enormous. Many Ọkọ speakers who are literate in other languages have shown interest in Ọkọ literacy. Occasionally, strips of writing, though various and sporadic, are done informally by individuals and mostly for private reasons only. However, the absence of a systematic orthography often seems to impede the continual efforts of some, while others are discouraged from developing Ọkọ writing skills, after a few attempts. This is a conclusion based on curious, but casual inquiries from some of the writers, as to why they do not write more extensive texts in the language. As earlier mentioned, both the graphemic representation of sounds and the unit boundaries of written texts are, usually, neither systematic nor uniform. The following (1) below are a few examples of written Ọkọ drawn from various sources at different times. All extracts are in their original form, but a free English translation of each has been provided. The anonymity of the writers has been preserved for two main reasons. The first reason is that, they are extracts from private correspondences (letters, emails or text messages) and not published sources. The second reason is that, they occur in above texts, written in languages other than Ọkọ (English). In other words, their occurrences may be deemed accidental code-mixing, rather than carefully motivated. Suffice it to say that Ọkọ, to date, is still a spoken language; and as such, the snippets are not a part of texts or literary documents entirely written in Ọkọ. However, they have been included in the present author's text archive for research purposes.

(1) Ọkọ Extracts	English Free Translation
a. <b>yo omodore ase yon</b>	His nose is bleeding (2003) <sup>2</sup>
b. <b>ede ki yiwo (sic) fọrẹ ba</b>	He/She cries too much (2003)
c. <b>menutun moben</b>	I am seeking another job

<sup>2</sup> The dates in bracket represents when the texts were extracted.

		(25/09/02)
d.	<b>mekewutun mefa</b>	I will be at work 25/09/2002)
e.	<b>teda newapan na</b>	Our father who art in heaven (2004)
f.	<b>tefo ugbugbodi newi wuru</b>	2004
g.	<b>Bamanidu, onne bowona ayedesie'</b>	God is omnipotent, he does what He wills
h.	<b>Osi e teyi ya isubu e fonmore na ben e jesu iwuru.</b>	May God make bereavement infrequent in Jesus' name
i.	<b>Ena ta kaa gan m'Ijesu' eba t'imedin. Ena ta kaa gan m'Osibina t'imedin. Usiy'a gan t'igun m'ekuten ro ededa. Ujogue gue t'e fo y'iwuru po.</b>	What shall we use to thank God? What shall we use to thank God, we don't know, we will bow our knees in the morning... (a common praise song in Ogori)
j.	<b>Tededa abe tiya be tosuda toda aka tegben nabe egan no. Kama goko magiyoba idiya goyinbo dada obuba keke kekeya. Egan nooo.</b>	Fathers, mothers, elders, children, I salute you. That I will speak Òkò, Yoruba and English "extensively" the rest is insignificant. I salute you. (not entirely clear)
k.	<b>enisia nenuma ganmewe na? Oganmero feyan feyan utebimu</b>	What was my offense that you fail to say good morning? You greeted everybody except me.
L	<b>we sie, ededa ogbaragada aka fo yio ogbagba ru uh. Iduma, aka mato shele te`gben abeh, iJesu uruh.</b>	Well done! The great God will shield you under His canopy. God will take care of our kids in Jesus' Name.

Many texts in Òkò, such as above, are often based on the Yoruba writing system in terms of choice of characters apparently, with the assumption that the two languages have identical characteristics. Although Yoruba is the most genetically related language to Òkò among the Benue Congo family, and they share some historical affinity, as commonly known, there is ample linguistic evidence to argue that they have become two divergent languages with different sets of linguistic systems. For instance, two phonological proofs of such differences (among others), which have implications for the writing systems of Òkò and Yoruba are as follows: (i) The absence of [p] sound in Yoruba, whereas Òkò has both [p] and [kp] sounds. (ii) Yoruba has no [v] whereas Òkò has [v] sound.

### 3 A Critical Review of Literature on Òkò Orthography and writing system

It is pertinent to critically review previous attempts at proposing an orthography for Òkò language, in order to justify the position taken in this article. The approach in this section is deliberately chronological, to highlight the historical development of interest in the codification of the language.

Interest in writing Òkò can be traced back to early 20th Century. The first known appearance of any writing in the language was that of Thomas (1914), who compiled a list of about two dozen lexical items and expressions, which he described as "specimens of Òkò" (p138). A few examples from Thomas (1914: 138) are listed in (2) below.

(2)	Thomas' List	Suggested correct version	English translation
	<b>Eboli</b>	<b>ebore</b>	two
	<b>ufomboli</b>	<b>ufombore</b>	seven
	<b>Ibobo</b>	<b>igbogbo</b>	nail
	<b>ubwibi</b>	<b>ubwa-ibe</b>	palm
	<b>Maca</b>	<b>ma a ca</b>	I come
	<b>Ebao</b>	<b>e gba epen</b>	I see something
	<b>ifitutu</b>	<b>i file utun</b>	I send
	<b>amololidu</b>	<b>ororiro</b>	I am a hunter
	<b>Egbe</b>	<b>e na epen</b>	I seize
	<b>ifigi lazubo</b>	<b>te fo igila ca uboo</b>	We bring yam home

While this was a pioneering attempt, the lexical items and expressions have varying degrees of resemblance to what a native speaker (perhaps, of today) would recognize as tokens of their language.

The suggested correct versions are derived from Thomas' English translation of his examples. The discrepancies in Thomas' (ibid) list, compared with the suggested version above, can be understood, as he was not a native speaker of the language; but this is, by no means, meant to be the only explanation for the errors. Rather, it appears symptomatic of the problem of faulty perception of phonemes unique to Ọkọ, such as observed by early European missionaries, who attempted writing African languages, as elaborated in Bodomo et al (2006). Thomas did not delve into phonological or graphological issues.

The first suggestion of a set of orthographic characters for the language was by G.B Akerejola (1970), who also documented a reasonable number of vocabulary items in his anthropological study. His list consists of the following letters:

- (3) (i) **A, B, C, D, E, E, F, G GB, H, I, J, K, L, M, N O, O KP, P, Q, R S, S CH, T, U, V, W, X, Y, Z.**

The Graphemes and the corresponding phonemic transcription of the suggested letters above are in (3) (ii) below

(3) (ii) Grapheme	<b>a</b>	<b>b</b>	<b>c</b>	<b>d</b>	<b>e</b>	<b>e</b>	<b>f</b>	<b>g</b>	<b>gb</b>	<b>h</b>	<b>I</b>	<b>j</b>
Corresponding Phoneme	<b>a</b>	<b>b</b>	<b>??</b>	<b>d</b>	<b>e</b>	<b>ε</b>	<b>f</b>	<b>g</b>	<b>gb</b>	<b>h</b>	<b>I</b>	<b>ɕ</b>
Grapheme	<b>k</b>	<b>l</b>	<b>m</b>	<b>n</b>	<b>o</b>	<b>o</b>	<b>kp</b>	<b>p</b>	<b>q</b>	<b>r</b>	<b>S</b>	<b>ş</b>
Corresponding Phoneme	<b>k</b>	<b>l</b>	<b>m</b>	<b>n</b>	<b>o</b>	<b>ɔ</b>	<b>kp</b>	<b>p</b>	<b>kw</b>	<b>r</b>	<b>S</b>	<b>ʃ</b>
Grapheme	<b>ch</b>	<b>t</b>	<b>u</b>	<b>v</b>	<b>w</b>	<b>x</b>	<b>y</b>	<b>z</b>				
Corresponding Phoneme	<b>tʃ</b>	<b>t</b>	<b>u</b>	<b>v</b>	<b>w</b>	<b>??</b>	<b>j</b>	<b>z</b>				

A double question marks (??) signifies a redundant entry that has no clear or separate phonemic equivalent in the Ọkọ phonological system. This phenomenon probably reflects Akerejola's use of English alphabet as the basis of the description of Ọkọ writing system. Nevertheless, as a pioneering effort from a non-linguist, with very elementary speech technology, the proposal can be appraised as highly commendable. However, there are phonological grounds to suggest the revision of these 32 characters to fewer entries. While there is a complementary distribution in some of the sounds upon which these letters are based (for instance ʃ and CH, and variably, between V and W), the letters X, Q and Z are difficult to demonstrate with textual evidence.

A similar suggestion of a set of letters for Ọkọ alphabet was initiated by the Ogori Descendant Union (ODU) a decade later and coordinated by Aisoni and Gabriel. They came up with 29 letters (see Eyika 2003: 3-4). The detailed features of the proposition by the above authors will not be discussed in this article, as their suggestion is not known to have a wide acceptance in the community. The textual basis as well as the orthographic characters have been subjected to critical scrutiny from a linguistic point of view, and the set suggested seems to have little practical applicability (see Akerejola 2005).

The next attempt is Adegbija (1993), in a sociolinguistic article. Adegbija was a foremost and renowned sociolinguist from Ogori, and his suggestion, obviously, has an advantage over the previous attempts, linguistically speaking. However, there are grounds to reconsider some of his proposal; especially the labialized voiceless velar plosive [kw], velar nasal sound [ŋ], nasalized palatal semivowel [ny] and other sounds which are reminiscent of sounds from neighbouring Akoko-Edo languages. These are presumed to also exist in Ọkọ as individual phonemic sounds, of which a more critical examination might suggest differences in opinion. One productive sound in Adegbija's catalogue involves the labialised process in the language. However, its regularity of occurrence in association with other consonants makes the isolation and inclusion of only [kw] unrealistic, as an orthographic character in Ọkọ. A more realistic approach would be a discretionary selection of what phonological process is accorded a grapheme, giving that there are quite a number of such processes in Ọkọ that are conditioned by phonological environment, as shall be discussed in this article.

Eyika's (2003) set could be regarded as a significant improvement on previous attempts, although the textual evidence for his suggestions and the stereotypic appeal to genetic relation with Yoruba as the major bases of his argument might provoke further questions.

The suggestion of Atoyebi's (2009), a student of Adegbija's, has been the most recent description of the orthography of Ọkọ. The description has a tremendous quality, being based on vast linguistic research; and his proposed alphabet is most persuasive. While the work is very impressive, his description across linguistic levels, including grammar and particularly orthography (which is the main concern of this article) seem to contain relics of non-native speaker's attributes. It is important to examine his proposal further, but the discussion will be limited to Atoyebi's (2009:58) proposed alphabet for Ọkọ which is as follows:

(4) **A B C D E E F G Gb H I J K L M N Nw Ny O O P Kp R S S T U  
V W Y**

Atoyebi's suggestion is almost identical with the alphabet proposed much earlier (see Akerejola 1985 and 2005). However, the comments here will be restricted to the following sounds on p.57.

- (5) (a) [tʃ] c  
(b) [ʃ] s  
(c) [ɲ] ny

(d) [ɲ<sup>w</sup>] nw

The orthography being proposed in this article excludes [ɲ<sup>w</sup>] nw and [ɲ] ny, which Atoyebi describes as the allophonic variants of [w] and [j] respectively. The suggestion, that the two sounds are allophonic variants of their corresponding pairs, needs to be re-examined. His example 43 (p56), “Orthography A” and the attendant text examples seem to reflect what, in consideration, may be a more plausible suggestion, contrary to his preference for “Orthography B”.

While the temptation to adopt Atoyebi’s position is high, a careful analysis would reveal the following facts. Firstly, the nasalisation in such words is usually postposed rather than pre-posed. In his example, “áyen” or “wán” for instance, the [n] sound is not realised before the [y] or [w] sounds respectively. Rather it occurs as a result of the nasalisation of the succeeding vowel sounds [ɛ] as [ɛ̃] and [a] as [ã] instead. Secondly, [ɲ] and [ɲ<sup>w</sup>] are sound obtainable in the Akoko-Edo dialects, a very low level of competency of which I still retain, having spoken one of the dialects a little in my youth. There would be a marked difference between the nasalisation of words, such as “ónyòn” (person) or “nyàni” (to own) in Bekuma/Ibilo dialects of Akoko-Edo and éyòn (blood) and yòn (stretch) in Ọkọ. Similarly, the phonetic realisation of the nasalisation in nwòn (to drink) - Akoko-Edo and wòn (clean) or ewon (thorn) - Ọkọ, would also vary. It would be observed that the sound selected are near homophones. The semi-vowels in the Akoko-Edo sounds would be nasalised while those in the Ọkọ words would not. These distinction in sound between each pair is shown in Figure 1 and Figure 2 below:

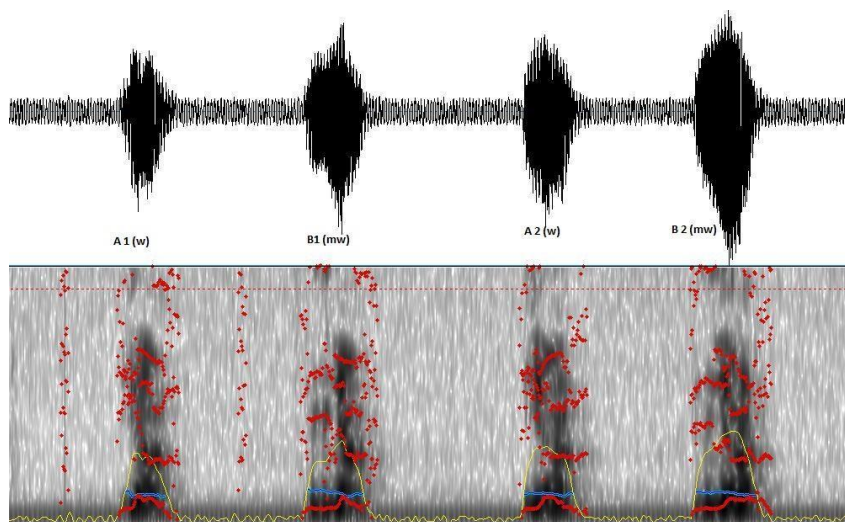


Figure 1. Spectrographic images contrasting [wòn] and [nwòn]

A spectrographic image of [wòn] A1 & A2 in contrast to [nwòn] B1 & B2 in Figure (1) reveals greater sound density in the latter. At the dynamic range of dB -50, [w] read 60.47 dB ( $\mu$ E) and 138.9 Hz. This contrasts with [mw], which 62.57 dB ( $\mu$ E) and 143.5Hz at the same dynamic range. A second reading with a slightly higher pitch displaced 62.99 dB ( $\mu$ E) and 140Hz for [w], and 64.91 dB ( $\mu$ E) and 142.5Hz respectively. These shows a difference in the sound characteristics of the two sounds. A spectrogram measurement of the [yòn] and [ónyòn] pair (Figure 2) shows similar distinctions in sound properties.

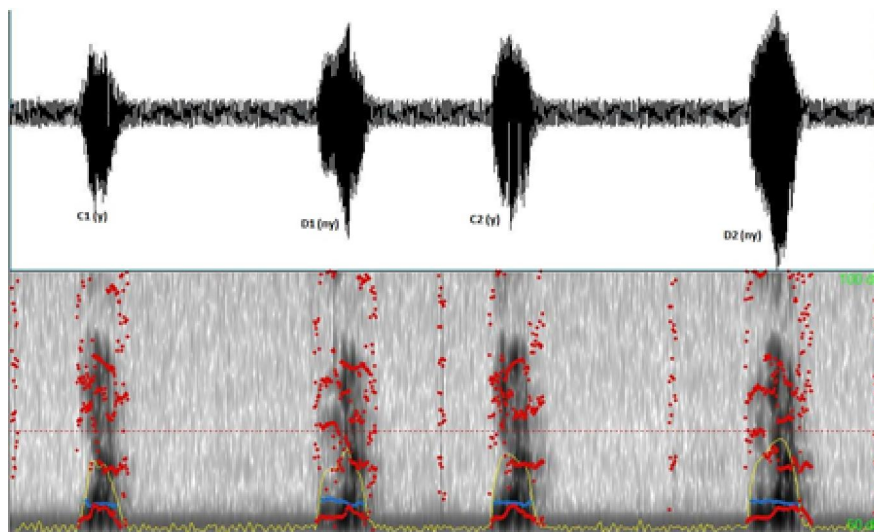


Figure 2. Spectrographic images contrasting [yɔn] and [ɔnyòn]

A third point, as argued in Akerejola (2005: 65), is that [ɟ] and [tɟ] are in complementary distribution in Ọkọ (variants of the same phonemes from the auditory perspective of an Ọkọ speaker); and the choice of either depends on the idiolect of the individual speaker. Therefore, I would reiterate the suggestion that there be a single entry in the alphabet “c” for both sounds. Further details on this will be provided in the description of the phonemes below.

#### 4. Linguistic bases for Ọkọ Alphabet

The discussion of the Ọkọ writing system, will be guided largely by the Systemic Functional Linguistics theory of Michael Halliday (Halliday, 1973, 1975, 1985b/1994/2004). Meaning, as the motivating factor of language activities, is the main emphasis in this theoretical model.

According to Halliday and Matthiessen (2014:24), human language is organised into “various levels, or strata”, namely context, meaning, wording and sounding/writing. Graphicisation is a process relating to the lowest level graphology (also known as the level of “expression” – Halliday & Matthiessen, *ibid*:16.). This is the level at which speakers of a language have physical contact with the language, either through sound or writing.

My earlier study of Ọkọ sound system (Akerejola, 1985), which is the first systematic study of the phonology of the language, had been partly influenced by Daniel Jones’ (1967) “Minimal Distinctive” as well as Abercrombie (1967) “Contrastive” frameworks. Their concepts were adopted in isolating individual phonemes that were inclined to minimal pairs. However, in this article, additional consideration is given to meaning, as a crucial factor in making a distinction between Ọkọ phonemes and tones. Thus, the recognition of units in the Ọkọ phonological system is based on what each item contributes to the distinction in meaning at the higher stratum. This kind of emphasis on the importance of meaning in phonological description is traced back to JR Firth (as cited in Henderson 1987). Therefore, while phonemes will be recognised in terms of how they make distinctions in lexical meaning, prosodic tones will be isolated on the basis of how they contribute to interpersonal meanings in the grammar as expounded by Halliday & Greaves (2008).

With meaning contrast as the motif, it is possible to isolate the following consonant phonemes in Ọkọ language, as in the initial sound in the word in (6) below.

(6)	Phoneme		Example	English Translation
i)	[p]	as in	[pɔ:ra]	póra to sweep
ii)	[b]	as in	[balɛ:]	bale to look
iii)	[f]	as in	[furu]	furu to jump
v)	[v]	as in	[ve]	ve to go out
vi)	[m]	as in	[ma]	ma to sit down
vii)	[n]	as in	[na]	na to take
viii)	[t]	as in	[tã]	tan to chew
ix)	[d]	as in	[dɛ:]	den to step on something
x)	[s]	as in	[su]	su to have
xi)	[ʃ]	as in	[ʃa]	ca to come
xii)	[tʃ]	as in	[tʃ]	ca to come
xiii)	[dʒ]	as in	[dʒɔ:]	jɔ to sell
xiv)	[l]	as in	[lo]	[lo] to use
xv)	[j]	as in	[ja]	ya to agree
xvi)	[k]	as in	[kɔ:]	kɔ to pack
xvii)	[g]	as in	[ga]	ga to say
xviii)	kp]	as in	[kparɛ:]	kpare to pluck
xix)	[gb]	as in	[gba]	gba to see
xx)	[h]	as in	[hã]	han to scrape
xxi)	[w]	as in	[wo]	wo to weave
xxii)	[r]	as in	[ri]	ri to cover.

The list of consonants above can be organised in accordance with their place and manner of articulation as in Table 1 below.

Table 1. Òkọ consonant chart

Place Manner	Bilabial	Labiodental	Dental	Alveolar	Palatoalveolar	Labiovelar	Velar	Palatal	Glottal
Plosive	<b>p b</b>		<b>t d</b>			<b>kp gb</b>	<b>k g</b>		
Nasal	<b>m</b>			<b>n</b>					
Fricatives		<b>f v</b>		<b>s</b>	<b>ʃ</b>				<b>h</b>
Affricates					<b>tʃ dʒ</b>				
Semi-vowels	<b>w</b>							<b>j</b>	
Flap				<b>r</b>					
Lateral				<b>l</b>					

### 5. Òkọ Vowel Phonemes

Seven vowel phonemes can be distinguished in Òkọ, namely **i e ε a ɔ o u**. This selection is typical of the languages of the West Benue-Congo stock (Gregersen 1977:32; Elugbe (2012:6), and the articulation of each can be represented approximately by their counterparts in the IPA cardinal vowel system. They are opaque (Williamson et al, 2000:36), dense and rather long in articulation. The following Table (2) is a chart representing the position and shape of the tongue in the production of Òkọ vowel

Table 2. Òkọ Vowel Chart

Vowels	Front	Central	Back
High	Unrounded	Unrounded	Rounded
Mid	<b>i:</b>		<b>u:</b>
Low	<b>e:</b>		<b>o:</b>
	<b>ε:</b>	<b>a:</b>	<b>ɔ:</b>

Each Ọkọ vowel phoneme, as in (7) below, is exemplified at the initial position of the words.

(7). Phoneme	In word context	Meaning	English Translation
[a]	[afɔ]	<i>afɔ</i>	fireplace
[e]	[ebi]	<i>Ebi</i>	Water
[ɛ]	<i>era</i>	<i>ɛra</i>	Fire
[i]	<i>irũ</i> <sup>3</sup>	<i>irun</i>	tooth
[o]	<i>oti</i>	<i>Oti</i>	stick
[ɔ]	<i>ɔre</i>	<i>ɔrɛ</i>	friend
[u]	<i>uku</i>	<i>uku</i>	forest.

Ọkọ vowels are predominantly monophthongal but they are all long vowels. Therefore, it would be redundant to indicate vowel length, since it makes no systemic contrast with anything else in Ọkọ phonology. A monophthong is a vowel phoneme made up of a single vowel sound (vowel simplex). It contrasts with a diphthong which is a vowel phoneme made up of two or more vowel sounds, occurring together as a single phoneme in a syllable, articulated with a glide from one to the other (vowel complex) - e.g., [ai] [ei] [uə] etcetra. Sometimes, a prolongation in articulation of [o] sound may be due to a reduction process, whereby a semivowel [w] or palatal sound, [j] has been subdued or elided in the articulation of a word, such as *oworo* (to *ooro*) and *ubowo* (to *uboo*) or *oyere* (to *ore*) and *uboyere* (to *ubore*) respectively. There are, however, very few of such occurrences in the language; and, the way the words are articulated depends on the individual speaker and his/her speed of utterance. Occasionally, this kind of reduction may affect two different vowel sounds in speech articulated rapidly, but always in the environment of a semivowel or palatal sound above. For instance, *Eyibone* “(just) now” may sound like *eibone*; and *awo ume fura* “you didn’t stand up” may sound like *aume fura*. These are merely phonological processes rather than diphthongal elements.

From the brief description of the Ọkọ phonemic system an alphabet containing the graphemes in Table 3 below can reasonably be proposed for Ọkọ language.

<sup>3</sup> The diacritic sign “~” on a vowel shows that it is nasalised.

Table 3. Recommended orthographic characters for the Ọkọ alphabet

Grapheme	<b>Aa</b>	<b>Bb</b>	<b>Dd</b>	<b>Ee</b>	<b>Ẹẹ</b>	<b>Ff</b>	<b>Gg</b>	<b>GB gb</b>	<b>Hh</b>	<b>Ii</b>	<b>Jj</b>	<b>Kk</b>
Corresponding Phoneme	<b>a</b>	<b>b</b>	<b>d</b>	<b>ɛ</b>	<b>ɛ</b>	<b>f</b>	<b>g</b>	<b>gb</b>	<b>h</b>	<b>i</b>	<b>dʒ</b>	<b>k</b>
Grapheme	<b>Ll</b>	<b>M m</b>	<b>Nn</b>	<b>Oo</b>	<b>Ọọ</b>	<b>KP kp</b>	<b>Pp</b>	<b>Rr</b>	<b>Ss</b>	<b>Cc</b>	<b>Tt</b>	<b>Uu</b>
Corresponding Phoneme	<b>l</b>	<b>m</b>	<b>n</b>	<b>o</b>	<b>ɔ</b>	<b>kp</b>	<b>p</b>	<b>r</b>	<b>s</b>	<b>ʃ or tʃ</b>	<b>t</b>	<b>u</b>
Grapheme	<b>Vv</b>	<b>Ww</b>	<b>Yy.</b>									
Corresponding Phoneme	<b>v</b>	<b>w</b>	<b>j</b>									

Table 3 above shows that, while the phonemic system of Ọkọ comprises 28 phonemes made up of 21 consonants and 7 vowels, they will together realise a total of 27 orthographic characters. Various phonological factors have led to this decision. As explained above, [ʃ] and [tʃ], being “diaphonic variants”<sup>4</sup> (IIALC 1930: 17) in the language, require only one orthographic representation. As a result, either of these utterances will mean the same thing to an Ọkọ native speaker.

(8) or <b>[iʃoma]</b>	or	<b>[itʃoma]</b>	meaning, " a lie"
<b>[ʃɛn]</b>	or	<b>[tʃɛn]</b>	meaning, " to cut"
<b>[ùʃuʃu]</b>	or	<b>[ùtʃutʃu]</b>	meaning, "quiet"
<b>[ʃé]</b>	or	<b>[tʃé]</b>	meaning, "to carry"
<b>[ʃa]</b>	or	<b>[tʃa]</b>	meaning, "to come" etc.

<sup>4</sup> “Diaphone” or “consonant ablaut” refers to the instance where variants of the same sounds are heard from different speakers of the same language.

My theoretical explanation of this is modelled in the in Figure below.

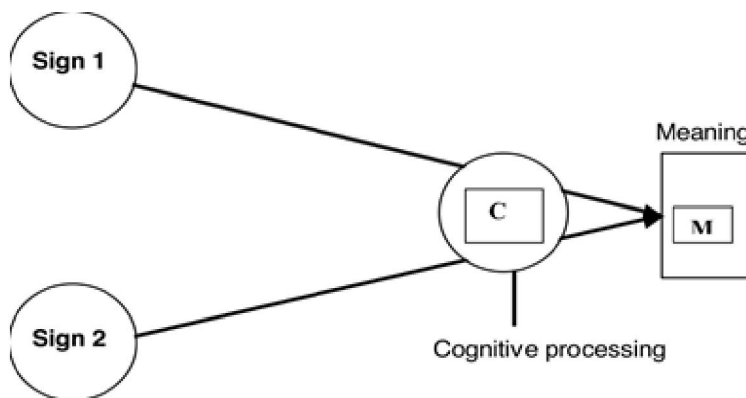


Figure 3. Psycho-semantic Semantic Convergence of Signs

Whichever phonological signal of a diaphonic pair (**S1** or **S2**) is sent by a speaker, it is mediated through some cognitive processing by the hearer, with the same meaning outcome (**M**). Consequently, whether the word **icoma** “lie” is articulated as [iʃoma] or [itʃoma], the listener understands the meaning as the same.

Another diaphonic situation occurs with the bilabial semivowel [w] and the voiced labio-dental fricative [v]. However, these cases occur in a limited scale, unlike the affricates above. Examples such as in (9) below, with variable choice between [w] and [v], exist in Ọkọ.

- |  |                  |              |
|--|------------------|--------------|
| (9) <b>íwíre</b> (a type of pea)                                   | with the variant | <b>ívíre</b> |
| <b>wuna</b> (to pull)  | with the variant | <b>vuna</b>  |
| <b>ówia</b> (a maiden)   | with the variant | <b>óvia</b>  |
| <b>èwà</b> (a white milky substance from a suckling child’s mouth) | with the variant | <b>èvà</b>   |

The phonemes [w] and [v] are not allophonic variants in all situations. For instance, where [w] is not the first consonant in words like **puwa** (to wash), **ruwa** (to share/divide), **buwa** (to remove e.g. a pasted paper from the wall) and **éwón** (thorn), the sounds are not interchangeable. Therefore, the two sounds each require a representation in the Ọkọ alphabet.

Similarly, as argued above, the inclusion of all labialised consonants in the orthography may be unrealistic. A good number of the consonants, except nine (namely, [r], [v], [s], [h], [ʃ], [tʃ] and [ɖ], [kp] and [gb]) are subject to the labialisation process in different contexts.

In summary, for various linguistic reasons discussed above, the following may be proposed as the a realistic Ọkọ alphabet:

- (10) **A B D E E F G G B H I J K L M N O O K P P R S C T U V W Y**  
*a b d e e f g g b h i j k l m n o o k p p r s c t u v w y*

This, of course, needs to be subjected to necessary and rigorous socio-political testing. With the above proposal, a popular song in Ọkọ, written as close as possible to how it would sound orally, would read thus:

(11) Folk song (FS/1)	Translation
<b>Ọgb' ọn' iwo ogben' ikeke I me din kenakide</b>	When I was a small child, I knew nothing
<b>Ma a ma me e roro titi ida k' ẹn' egb' ẹnan' a?</b>	When I sat and pondered, I would wonder what kind of world I was in
<b>Me e siye me e mi roro, iroro de kwo m' ibe</b>	I never knew that what I lacked was wisdom.
<b>Dedi k' im' e mi gbenayen otutun.</b>	I would sit and think until I could think no more
<b>Me e mi ma, ẹ dake ẹn (dake ẹn)</b>	When I sit now and reflect, I rejoice (greatly reneedjoyce)

## 6 Conclusion

In conclusion, a writing system is long overdue for Ọkọ language users. However, evolving an alphabet for Ọkọ is something that requires carefully considered action. It is a complex process that requires a linguistic, methodical, systematic and scientific approach. Several factors need to be considered for this process, and this may require years of focused studies for a practicable and acceptable decision. However, with the will and sufficient investment of time and resources, this is very achievable.

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