

Towards a specialised digital monolingual Igbo dictionary on crop cultivation

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Abstract

The monolingual dictionary as an essential language compendium preserved culture specific ideas. In a technologically driven society where visual platform enhanced comprehension, monolingual dictionary presents careful and detailed information on the usage patterns of a given language. This promotes longevity of historic peculiarities for generational connect. Yet, there is a dearth of such dictionaries in the Igbo language. Therefore, this study sets to explore an e- monolingual dictionary model for the Igbo language on crop cultivation. Data were primarily sourced from field work whereas published literature and internet materials comprised the secondary sources of information. While the Function Theory of Lexicography was adopted for the pre-data compilation and presentation, the lexiquepro was used for the post compilation stage of the dictionary. This model avails researchers and learners the opportunity to globally access appropriate lexemes within the Igbo crop cultivation domain. Furthermore, Igbo children (at home and in diaspora) would have been provided with a visual platform to acquaint with specialised traditional Igbo farming practices, values and systems. Consequently, the longevity of the use of Igbo terms associated with traditional farming practices is revitalised among the younger ones. This study suggested that such platforms be provided for other areas of Igbo cultural practices such as pottery, health, blacksmithing, and performances to aid Translators, Terminologists and text writers appropriately convey their messages as well.

Keywords: *Digital era, Igbo, monolingual dictionary, specialised dictionary*

1. Introduction

Traditionally, dictionary is described as a reference material that explains in an alphabetical order the meaning of the repertoire of the lexicon of a language in the same language or with equivalents in another language. However, with the increasing challenges on appropriate representation of equivalent terms faced by translators, terminologists and text writers, there is the need to provide practical illustrations in dictionaries. Consequently, dictionaries were described as information tools which helped comprehend and explain texts and cognitive functions in communication-free contexts (Fuertes-Olivera, 2014). This provided extensive semantic representations of words and made the dictionary a potential repository of lexicon and cultural knowledge to guide lexicographers, researchers, and other scholars (Frawley, 1988; Wiegand, 1988). Though this contradicts the descriptive notes on equivalent terms in bilingual/multilingual dictionaries, its advantage includes an opportunity to keep up with the requirements of specialised dictionaries. Specialised dictionaries are those dictionaries that list terms associated with particular fields of study with their definitions, inflections,

collocations, phrases as well as sample sentences. They sometimes appear either in monolingual (one language) or bilingual/multilingual (two/more languages) printed or electronic formats. Although, the bilingual specialised dictionaries facilitate comprehension for second language learning skills, Bergenholtz and Gouws, (2010) argued that to provide the needed practical assistance to users, detailed information on usage patterns for any of the culture specifics can only be fundamentally available in specialised monolingual dictionaries. This buttresses the fact that well-informed scholarly research works in related disciplines may not find extensive information for the various contexts of usage in bilingual or multilingual dictionaries to validate data (Austin, 2011). Consequently, specialised monolingual dictionaries are necessary research companions for comprehensive information retrieval of language data. Unfortunately, there is a dearth of such specialised monolingual dictionaries in Igbo language.

Although, few specialised Igbo bilingual dictionaries/glossaries/ wordlists exist (Ajunwa, (2013) *Igbo Technical Dictionary Compilation: A Stimulating Experience*; Oli, Nwaozuzu, and Mbah (2013) *English-*

Igbo medical dictionary, Igboanusi and Mbah (2017) *English-Igbo glossary of HIV/AIDS and ebola-related terms*; Banjo, (1991) *Quadrilingual Glossary of Legislative terms: English, Hausa, Igbo, Yoruba*. Mbah et.al (2013) *Igbo Adi; Igbo-English, English-Igbo Dictionary of Linguistics and Literary Terms* and Ukabam, (2018) *Ọkọwaokwu ugocha maka ụmụntakịrị* (children's dictionary), there is hardly any specialised Igbo monolingual dictionary that systematically illustrate Igbo cultural knowledge. This, perhaps, may be attributed to the question of readership and economic feasibility of monolingual dictionary works in the Igbo language (Chukwukere, 2005). Yet, some entries in the existing bilingual Igbo dictionaries are subjective and incomprehensible to serve as reference tools. For instance, Echeruo, (2001, as cited by Chukwukere, 2005) described the words; *ozo* as a title conferred on an indigene, *oru* (slave) as restricted to woman in *oru nwanyi* and the description given to male as *oke* and female as *nke nwanyi*; while man was described as (*mmadu*) and woman as *nne nwanyi* in Nnaji, (2001). Again, Igbo terms such as *omenaala* (cultural practices routinely altered to suit a purpose at a particular time; sometimes

backed by law) and *odinaala* (a body of long established beliefs set as precedent) are used interchangeably as Igbo synonyms for culture in some of the existing bilingual dictionaries (Eke, 1985; 2001; Nnaji, 1985; Igwe, 1999 & Echeruo, 2001). These information, without further explanations on how and when to use each mislead non-native speakers especially learners, translators, terminologists or lexicographers. In various special disciplines such as agriculture, Nwankwo (2018) notes that in the course of socialising with people of other culture, some dictionary editors and writers represent adopted words in some of the entries in the existing bilingual dictionaries; thereby making it very difficult to elicit appropriate native terms of some items. For instance, the melon seed generally known as *egusi* today (cf early 20th century Yoruba term) had been phonologically adopted and represented as *egwusi* (Williamson, 2013). Gradually, *egwusi* replaces such native terms as *elulu* (standard Igbo), *ahu*, and *mkpuruhe* (variants). *Kukumba* replaces *ukro*; *popo* for *mgbigbi/okwunu* *bekee*; *potato* for *nwimerete /ogongo /nduku*, *beans* for *agwa* and *maimai* for *osu/igbigbi*. If such adaptations continue to replace indigenous specific terms even

in dictionaries, the wane of Igbo native terms becomes inevitable. Consequently, a change from the traditional dictionary preparation approach becomes necessary in a digital era. Against this backdrop, this study explores a digital specialised monolingual template for some indigenous crop cultivation terms. The provision of digital specialised monolingual dictionaries ensures that objective clarifications on terms and usage pattern are regularly updated.

2. Dictionaries in a digital era

The word digital era in this study simply refers to the period of virtual representations of forms or codes such as texts, sounds, images or voices (spoken or written). Virtual forms appear in current electronic information platforms (Clooman & Sanett, 2005; Fuertes-Olivera & Tarp 2014). It is usually characterised by exceptional speed in information retrieval through the internet (Telecommons, 2000). Consequently, on-the-spot availability and accessibility of information are readily provided. This accounts for the accessibility of some specialised information in the digital monolingual dictionaries of some languages (English and French). However, the Igbo specialised dictionary is yet to be availed its users on this

digital device. This means that retrieving technical terms, synonyms, antonyms and having illustrative and adaptable information of technical Igbo lexicon or one of its varieties from an electronic treasury is yet to be accessible. Although, there are some ongoing digital works, none seems to extensively address any particular area of Igbo profession. For instance 'The talking book' (<http://www,mavis.computel.com>, 2014) an ongoing digital work on Igbo language. This work is pedagogic in nature and specialises in the teaching of standard Igbo language to learners from the sounds of the alphabet, numerals, greeting and general terms. It is operated with a pen that directs the correct pronunciation and identification of lexical items. Although, it assumes a general dictionary approach, it is however, prepared for the Igbo people in diaspora who have lost touch with the language. While, this work is not an in-depth monolingual work for scholarly researches yet, it is also not easily accessible as a result of its high cost. Although, the revised general bilingual Ònìchà Igbo dictionary (Williamson, 2013) seems to be the only comprehensive Igbo dictionary online, not much work in specialised areas can be claimed to have been covered in it. In

other words, existing Igbo dictionaries did not consider accessing cultural term usage patterns in specialised fields from a global point of view. It is this gap in knowledge that this present study aimed to address. It specifically aimed at providing a digital Igbo specialised monolingual dictionary of Igbo crop cultivation.

Accessing detailed empirically grounded information from specialised monolingual lexical entries on Igbo crop cultivation terms eases teaching of terminology practice to pupils, students, translators, writing of technical manuals for custom-made products, communication companies, consulting services, modelling for all spheres of professional activities and alleviates the challenge of credible readership and comprehension for learners (Haß & Schmitz, 2010; Bergenholtz, 2012), hence the need for this study

2.1 The theoretical construct

Earlier researches in theoretical lexicography/dictionary research/metalexicography were done mostly by linguists with attention on the linguistic contents of dictionaries (Householder/Saporta, 1967; Zgusta, 1971; Al-Kasimi, 1977). However, with

lexicography understood as a separate discipline in its own right, Wiegand (1984) and dictionaries being studied as repository of data, on different dictionary structures, (Hausmann & Wiegand 1989), the lexicographic function was established. Lexicographic function premised dictionaries as utility tools, compiled to respond to the specific needs of specific users with specific reference skills in specific situations of dictionary use (Tarp, 2000). As a result, two outstanding theories in lexicography became the "lexicography and Dictionary Research" (Wiegand, 1998) and the "Function Theory" (Bergenholtz & Tarp, 2002; Tarp, 2008; Tarp, 2013). But, to provide comprehensive and up-to-date documentations in the production and researches of dictionaries some specific approaches were derived from these theories (Mann & Schierholz, 2014). Such methods include the functional perspective (Tarp, 2014), online-dictionaries planning (Geyken, 2104), research in dictionary use (Müller-Spitzer, 2014), the saving of lexical data (Romary & Witt 2014), translation science (Bielińska, 2014), specialised lexicography (Bocorny & Finatto, 2014), pronunciation dictionaries (Hirschfeld & Stock 2014), items giving the paraphrase of meaning

(Töpel, 2014) among others. These methods are specific and compiled with particular kinds of users in mind (Al-Kasimi, 1977; Busane, 1990). To align with the aim of this study, the Function Theory of Lexicography as propounded by Tarp (2008) was adopted. Function Theory of Lexicography stemmed from modern theory of lexicographic functions which was established by researchers at the Aarhus school of Business of the nineties. Its focal point lies in the fact that it is user determined; implying that all theoretical and data compilation must be based upon specific needs for specific situations. A successful application of the Function Theory of Lexicography (FTL) is seen in Fuertes-Olivera and Tarp's (2014) specialised online dictionaries. The online specialised dictionaries concern itself with the practice of preparing language dictionaries and facts beyond general knowledge and corresponding language for general purposes to fields that incorporate technology like trade and economic life. It entails a design which focuses on the users need at each situation; compilation stage which lays emphasis on the database with fields that will store the data and lemma selection (for filling categories like definition, equivalents, examples, co-occurrences

and images) and post compilation stage which involves producing the dictionary and making it accessible to users. This permits empowering the characteristic background of the Igbo language to become viable in the modern world. The post compilation template was presented using the lexiquepro to preserve specific terms in databases.

3. Methods

Adopting the ethnographic and descriptive approaches as the research designs for this study, the lexical entries in the database were primarily sourced and elicited from wordlists and communicative events from interviews on general terms for cultivation, yam and palm wine tapping in five rural communities in the Southeastern part of Nigeria (Lomee in Abia state, Omoṣo in Anambra state, Oshiri in Ebonyi state, Ogwugwu in Enugu state and Uṃnamu Okwe in Imo state. A research assistant was employed for each speech community. Existing Igbo dictionaries were also consulted as secondary sources. Igbo abbreviations were used for grammatical categories such as (a) for aha (nouns), (n) for ngwaa (verb), (nk.) for nkṓwaaaha (adjective), nj (njaike), mf. (mfinitivu), ndh. (ndinihu), ndz. (ndinazu),

nsmgb. (nsonaazụ mgbatị) among others. It also incorporated graphical representations where necessary. In representing these terms, all high tones are unmarked, all low tones and mid tones are marked.

Twenty lexical entries were selected and thematically arranged to show class category, transcription, meaning, present and past tenses, equivalents and collocates where applicable.

4.1 Data presentation

Table 1:

4.1.1 Nkwado ala maka ọrụ

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- i. Gbu/o : (n) [gbuo] I ji ike wepu ndụ n' oge erūghi eru.
 ii. `omụmaatụ` : gbuo osisi
 ị +gbu (mf+n) usoro I ji ike wepu ndụ n' oge erughi eru
-

Gbu+chaa (n+ nsmgb.) gbuchaa ọhịa [gbutʃaɔhɪa] iji ike wepu ahịhịa
 maọbụ isi akwukwọ dī n'ọrụ

omụmaatụ:

Biko gbuchara áà(ndz.) m ọrụ ahụ
 ngakọ: gbuo akpụ, osisi, nkwy (n+a)

Gbu/o+akpụ (n+a) [gbuo+akpu] n'okwu

myirii : manye osisi akpụ n'ala.

- ii. sụ/ọ : (n) [su/ɔ] Iji ike ọkpụkpụ aka dozigharịa ọdịdị ihe/ebe
 ị+sụ (inf+n) [ɪsu] usoro Iji ike ọkpụkpụ aka dozigharịa ọdịdị
 sụọ+ala (n+a) [sɔɔala] Idozigharịa ọdịdị ala site n'iji ike ọkpụkpụ aka na
 mma sụpụ ahịhịa n'ala
 sụ+chaa+ala (n+ nsmgb.+a) [sutʃaala] I ji mma sụpụ ahịhịa n'ala nkeoma
 sụrụ+ala, sụọ+la(ndịnaazụ), sụọala, ga-asụala(ndịnhu)

omụmaatụ:

Onye ọrụ ugbo na-asụ ala tupu a kọọ ya
 e nwekwara ike bọọ ahịhịa (I ji apa/ogụ ntakiri) foo ahịhịa (maọbukwanu
 Iji aka nkịti)

Source: fieldwork

Analysis

In Igbo farming system, no cultivation is done haphazardly hence the theme "land preparation" is discussed in table 4.1. From the above data, the dialects studied share same fundamental units of the vocabulary for clearing the land- /gbu/ and /su/. Basically /gbu/ and /su/ are basic verb forms which denote expending energy manually. In practice however, the semantic differences are between the two lexemes derived according to the co-occurring lexeme for each. For instance, 'gbu' "(kill) indicates quickly devoting energy to take out using any object of choice while "su" implies expending energy in an organised manner using

machete. Consequently, collocating each of them with *ahihia* sends various messages. This implies that when *gbu* co-occurs with *ahihia*, the idea that the grasses should be removed is inferred not specifying using matchet or cutlass or stick among others. But when *su* co-occurs with *ahihia*, it gives the idea that the grass cutting should be thoroughly steam rolled using matchet. In other words 'gbu' and 'su' in Igbo cannot be said to be complete synonyms. As a result, a translator needs to acquaint with these terms and usages for effective translation in the field cultivation context.

iii. Kwaa (n) [kwa:] 🗨️ : dozie nkeoma;

ị+kwa+ala:usoro e ji e dozi ala site n'iwepu ure na
mgborogwu ndi na-emeru ahụ

kwa+chaa(nsokwunye) ala (n)+a

[kwatfaala] 🗨️ ịkpokota mkpokpo e weputara
n'oru iji kwado ala maka okuko.

ngako

kwa +ala dozie alamaka ezi nruteakuku ubi

[kwatfaana], [kwaali], [kpokoefia]

Aga m akwacha ala ubi m echi maka `ok`uk`o

Source: fieldwork

The lexeme *kwa (tidy) ala* (land) semantically means to carefully tidy the surface of the land to take away any dangerous object/s (such as stump of trees) that can hinder effective tilling of the soil to make mounds. As collocates, *kwa ala* connotes appeasing the gods for productivity. In other words, farm outputs are usually richer when the necessary steps are taken before farming. These concepts are sometimes misrepresented or avoided in some translations and as a

result such cultural knowledge eludes the learners of the Igbo language or aliens of the culture. On the other hand *chaa* is a suffix emphasising the degree of carefulness expected while clearing the area of cultivation. However, when *chaa* is suffixed to such equivalents as *kpa*, it simply implies the notion of raking through the cleared piece of farm land while the term *kpoko* conveys the intent to gather and burn all unwanted objects.

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- iii. suo ọkụ (n+a) [suɔ:kɔ]  lji nwayọ menwute ọkụ n' ure (dika ahịhịa asụputara n'ubi)
 i+suo+ọkụ [isuo:kɔ]  usoro lji nwayọ menwute ọkụ n' ure
 su+ru (ndz.) ọkụ: ga-esu ọkụ(ndh.)
 ngakọ:
 swo+ọkụ, gbaa+ọkụ, kpoo +ọkụ, tuo+ọkụ, ye+ọkụ
 [i:s^woɔkɔ][ɪtuɔkɔ] [ijeɔkɔ][ɪkpɔ:kɔ]
 Suo ọkụ n'ahịhịa ndị ahụ e kpokoro ọnu
-

The lexeme *suo* infers to break into. *Suo ọkụ* in this context therefore, suggests a careful break into the piled grasses by kindling fire on it. The lexical item *ọkụ* may also co-occur with some other verbs such as the following *suo /swo/, tu, ye or kpoo*, to give different shades of meaning. While *suo /swo/ ọkụ* entails that

kindling fire follows a gradual but careful process under the trash using an external aid, *kpoo or tuo ọkụ* entails kindling the fire from any side or haphazardly on the trash. The above equivalents reveal a level of labialisation of the /s/ sound as can be seen in /s^wo/ and vowel lengthening /ɔ:/ in some dialects of Igbo.

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- iii. ree ọkụ(n+a) [reɔkɯ]  ọkụ imebi/gbuo ihe.
Ire+ọkụ [ireɔkɯ]; [iřeɔkɯ]usoro ọkụ si e gbu ihe dịka
ahihia maọbụ,
rere(ndz); ree/ga-ere(ndh),
Ahihia rere ọkụ; mkpomkpo na-ere ọkụ
-

ree ọkụ is the generally accepted lexeme to explain burning of heaps of wastes. Although some dialects use gba ọkụ for waste burning, the two lexical items are not synonymous. When *ře ọkụ / ree ọkụ* is used, it implies that the fire burning is

under supervision to avoid tongues of fire spreading wildly. *Gba ọkụ*, however, indicates an outbreak of fire . In other words, the words *ree ọkụ* and *gba ọkụ* cannot be said to be synonymous in Igbo

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- iii. okwu (a) [okwu]  aja akọkọtara ofu ebe maka
ikunye mkpuru n'ubi
kọọ okwu (n+a) [kɔɔkwɯ]  kọkọta aja maka ikunye mkpuru
n'ubi.
[kọ okwu [kɔɔkwɯ] usoro lji ọgụ maọbụ ngwa ọrụ kọkọta aja
maka ikunye mkpuru n'ubi.
k'or'ọ (ndz.) / ga-akọ(ndh). okwu
[kɔɔkw^hu],[kɔɔpɯsɯsɯ], [kɔiɸe],[kɔɔɸu]
-

kọọ okwu as a process entails tilling the soil to make rounded mounds for planting cassava, maize, coco yam, melon seed among others. *ịkọ okwu* (tilling the land) is usually the last stage in land preparation. Although, some Igbo native speakers mistake *ókwù* for *ébé*, they delineate two different concepts in the Igbo vocabulary. While *ébé*, or *ígbó* (mounds) is specifically made for yam

cultivation, *ókwù* (*heap*) is used for cultivating other crops. Its equivalents include *mkpulu ọhụ*, *ophu*, *ịkọ iphe* or *okw^hu*. Therefore, such terms as *okwu* may be said to be the hyponym for the other terms. This clarification is one reason why specialised monolingual dictionaries are needed for every language

4.2. ịkọ ji (yam cultivation)

ji (a):[d̪z̪ɪ] nji [nd̪z̪ɪ], ndi [ndi:]  Ji bu eze ihe akuku

ubi n' ala Igbo niile. O bukwazi akuku mgborogwu na-adi n' ogbe. Ime ya nwere ike icha ọcha maọbu edo-edo. O nwere ọdịdị dị iche iche dika nvula (nvila/ mbana / abana), ede, ọna, dgz. Ha niile nwekwara ụdịrị
ịmaatụ: Zutara m ogbe ji n'ahịa.

In the Igbo setting, yam is seen as the king of yams. It is quite tedious and tasking hence chiefly cultivated by men. The cultivation starts with the yam seedlings being inserted in a particular way from topmost part of the mounds. It is observed that a good number of the studied communities identified the

seedling as *mkpuru ji*, but some adult yam farmers who are beneficiaries of the newly introduced agricultural scheme interviewed at *Umunamu Okwe* mistake *mkpuru ji* for the term *miniset*. *Miniset*, is the process of acquiring more yam seedlings. Notwithstanding, there are different kinds and varieties of yam.

awaji (nk) [awadži] 🍷 ntakiri ji ekewaputara n'ogbe
ji.

Myiri:

[áwándzi] [ibendzi], ewaji, [ɛwadzi] , epepe nji
[ɛp^hɛpendzi]



Source: Internet

Semantically, *awa*, *ewà* and *ibe* are lexical items used to refer to sliced pieces of yam; however, they do not mean the same thing. While the lexical item *ibe* refers to slices of yam from same tuber (sizeable or small), *ewà/epépe 'nji* refers to a sizeable chunk out of any whole yam purposeful chopped to show a certain

proportion. This perhaps justifies why the Igbo refer to their relations as *ibè*. and the chunks of yam for planting artistically carved in particular patterns and sizes. As a result, *ewà jí*, and *epépe njí* may be grouped as equivalents while *ibe jí* is their hyponym to include slices of yam to be cooked.

- iii. soo jí' (n+a) [so:ɖʒi]  Itinye awa ji/epepe nji n'ime
ókwù

soo níjì [s^wondʒi], maa jí [maɖʒi], ima níjì [ɪɔan/ɖʒi]



Source: Agueze photos; Ebonyi State

In the Igbo worldview, yam is gradually inserted into the heaps by opening the topmost part of the heap with knife. This gradual process possibly influenced the various terms used to identify the processes of yam planting. For instance *Lomee* and *Umụnamụ* use the term *soo*

/swo whereas *maa jí* as used by other communities presents a force schema to the process of yam cultivation. The interpretation of a force schema suggests *maa jí* as a hyponym of *kọọ jí*. The bilabial click /ɔ/ is observed in *maa* from Ikwo and Oshiri as phone

Diji (nk.) [diɖʒi] 🗣️ Onye nwoke e ji ìkọpụta ji mara.

Myiri: eze ji



Source: Agueze photos; Ebonyi State

In the Igbo setting, yam cultivation is seen as the business of men. Consequently, a man who is successful in yam cultivation is given the title *diji /Ezeji* (King of yam) for his barn does not lack yam all through the year

iii. òdùkù (a) [nduku] 🗣️ otu ụdịrị ji odo.

Myiri:

òdùkó [nduko], Ògòngó [ogongo],

nwímereṛeṛe [n^wɪmɛrɛɛɛ], Jí òyò/ùchọ [ɖʒi ojo/utsɔ]



Source: Internet

petato as a phonologically adopted term replaces its indigenous term/s. This affects the indigenous vocabulary as the waning terms are also made passive. Such indigenous term/s were identified in some speech communities as *nwimerete* / *nduku* / *nduko* and *ogongo*. It is an

implication that if specialised monolingual dictionaries existed, farmers may not have been excited to acquaint with the phonological adaptation *petato*. For a dialect such as Ogwugwu, the lexical item *Jí òyò/ù'chò* was derived using a descriptive approach

iii. *rụọ ji* (n+a) [rɪʋ dʒɪ]  usoro ị rụnye osisi n' ókwù

I ji welie omeji



Source : Agueze photos; Ebonyi State

The lexeme *rụọ* implies pointing an object to a particular direction. While the lexical item *máá* implies that energy is expended in pointing to a particular point, the term *rụ'ọ ji* precisely explains staking yam. Although *rụ ji* and *maa ji* could be said to be troponymous (expressing the

manner), *maa ji* cannot be said to be a good equivalent for *rụ'ọ ji*. Should a specialised dictionary exist, these special cultural information would have been accessible to researchers in this field of study.

Xiii. adu (a) [adu]  ụdị́ jí odo na-adị́ na mkpuru ma na-
akwu n'elu;

Myiri

ádụ́ jí, ẹ́dù [ɛdù]



Source : Mr Cosmos Okeke Awgu (Ogwugwu village), Enugu state

Among the waning species of yam is adu. Adu is a type of yellow yam and very nutritious . However, it is gradually going into extinction as people rarely cultivate it in recent times. Unlike other types of yam which are dug up while harvesting,

ád'ụ́ is plucked. In the cause of pronunciation, some dialects such as Lomee show breathiness in the pronunciation to have ád^hụ́, while some others identify ádù, as ẹ́dù making [ɛ/] variant form of [a/.

4.2.1 Words denoting harvesting from the farm (Òwùwè ihe akụkụ n'ubi)

Umunamu	Lomee	Ọmọọ	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
ígwúté jí´ (Inf.+V+N) [ígwute d̪ɪ]	ngwúté híjí [ngwute nd̪ɪ] Ògwùgwè n̪í [ogwugwe nd̪ɪ]	ígwúté jí´ [ígwute d̪ɪ]	ekété jí maọbụ ígwúté jí [eketed̪ɪ] [ígwute d̪ɪ]	ọ'kpátá jí [ɔkpata d̪ɪ]	ígwútá jí´ [ígwuta d̪ɪ]	ígwúté jí´ [ígwute d̪ɪ]	Harvest yam

4.2.2 Words denoting heaping yam (ì tų kọ jí)

Umunamu	Lomee	Ọmọọ	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
'tų'kọ' jí (Inf.+VN) [itukɔd̪ɪ]	'tų'kí'ya n'jí [itukɪjand̪ɪ ɪ]	ńkpọ'kọ' tá jí [mkpokɔ tad̪ɪ]	àmákpób é jí [amakpob e d̪ɪ]	Ókpókóbe n̪í [okpokob ed̪ɪ]	ì'chí'kọ'ta jí [ɪtʃɪkɔta d̪ɪ]	ńkpókò jí [mkpokɔ]	Heaping yams in preparation for placing in the barn

4.2.3 Words denoting removing the tiny fibrous roots (ìkwáchá jí)

Umunamu	Lomee	Ọmọọ	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
ìkwáchá jí (Inf.+V+N) [ɪkwatʃad̪ɪ]	ìkwáchá n̪í [ɪkwatʃan d̪ɪ]	ìkọchá jí [ɪkɔtʃad̪ɪ]	ì'kpáchá jí [ɪkwatʃa d̪ɪ]	Ọọ'kpà n̪í [ɔ:kpan d̪ɪ]	ì'kọ'ch à jí [ɪkɔtʃa d̪ɪ]	ì'kwàchà jí [ɪkwatʃa d̪ɪ]	Removing the tiny fibrous roots on harvested yam

4.2.4 Words denoting tying yams in barn (ikenye ji n'oba)

Umunamu	Lomee	Omoo	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
Íké jí n'óbá (Inf.+V+N +mb+ N) [ikedʒi n'oba]	Ík'hé n'jǐ l'óbá [ikendʒi l'oba]	Íké jí n'óbá [ikedʒi n'oba]	Íké jí n'óbá [ikedʒi n'oba]	ódóbé n'jǐ l'óbá [ikedʒi n'oba]	Íké jí n'óbá [ikedʒi n'oba]	Íké jí n'óbá [ikedʒi n'oba]	tying yams in barn

4.3 Palm wine tapping

xiv. Àgbàjà (a) [agbadʒa] , ite agbugba e ji ehekwa mmanya.

Myiri:

Akpakro [akpakro], itèr'kwú [itenɔkʷu], ite m'ímá [iteimaɪ], itè
m'íá [itemia], itè m'ée [itemɛ].

Diochi na-ehekwa mmanya n'agbaja /ite /akpakro nkɔɔ ya

xv. *diochi* (a) [diotʃi] , Onye o bu oru ya iri elu osisi nkɔɔ kuta mmaɪ. *Lee ! onye diochi
a ji ogbu ya ari elu ikutara nna m mmanya/nkɔɔ*



Source: Ogwugwu, Enugu State

xvi. ebele (a) [ebele] 🗣️, obere ite e ji echeta mmai
n'elu m̀b̀ub̀ò [mbubo] m̀b̀è̀l̀è [mbele] Èb̀è̀l̀è [ebele],
m̀b̀ò [mbo] :

diochi chenyerere ebele nkwu yam aka ahija echi



Source: Internet

xvii. Mmai (a) [mmai] 🗣️ mmiri g̀r̀ìg̀r̀ì ọcha na aputa mgbe e
nwere mmeke oke na nne mkpuru nkwu; nke na-eweta mgbaka
n'osisi nkwu maobu ngwo.

Myiri:

m̀m̀i, nkwu mmiri, m̀ìa/mee, mmanya

ik̀u m̀m̀i (Inf.+n+a) [ikummai], lute mmai,

omumaatu.

*ik̀u m̀m̀i bu otu ọru nka e jiri mara ndi Igbo. O bu
usoro e si arị ma kwado oghere n' elu nkwu tupu
akuta mmai
nnenna, ga-lute mmai n'ahija.*

Two terms are specifically used to talk about palm wine tapping and selling. *ku* as the process performed on the tree and *lute*, the traditional precise term for buying palm wine. Recently however, palm wine is sold in bottles hence the term *zuta* has become a preferred term.

This does not represent true Igbo culture as these entries may mislead a learner. Owing to the fact that the learner may find it difficult to distinguish between the usages of these two lexical entries, consulting the monolingual dictionary becomes an alternative learning guide..

Xviii *ńkwụ* (a) [ɲkwu] (a).*Nkwụ* bụ otu akụkụ osisi e si emepụta mmanụ,mmai,akị na ihe mwulite akụnaụba ime obodo dị iche iche:

E ji kwa ya ama atụ ihe guzo kwem maọbụ ihe toro oke ogologo Myiri:

[akwu], [ekwu], ńpfi [mpfi], ẹphi [ɛphi]

gbàà nkwi (n+ndịnihu+a), *gbàrà nkwi* (n+ndịnazụ+a.), *dọọ nkwi* (n+ndinihu+a), *kụọ nkwi* (n+ndinihu+a), *gbuo nkwi* (n+ndinihu+a), *mgba nkwi* (nk+a),*nkwi elu.nkwi ala*

ọmụmaatụ:

- i. Mgbe nna m *gbàrà nkwi* n'ọrụ anyị, a *dọgharị* nkwi ahụ n'ala sara mbara maka ịbawanye. Osi nkwi ndị ahụ mechara ọpụrụ ma buruchazie *ikè (literal)*.
 - ii. I *gbuo nkwi*,anyị eme mmanụ
 - iii. ị *kụọ nkwi* ahụ,bunye m otu mgba nkwi
Nwanyị a bu nno osisi nkwi / *Ogbe nkwi* (akpaalaokwu)
-



Source : Agueze photos; Ebonyi State

The lexical item *nkwu* (oil palm plant) is a general term for the palm tree. The synonyms were elicited from various dialects of Igbo (Lomee, Ọmọọ, Oshiri, Ogwugwu and Ụmụnamụ Okwe). *Nkwu* co-occurs with other lexemes to send precise intended information. For instance, the use of the term *gba / gbàrà nkwu* implies that there is an expanse of land where palm seeds were planted in a nursery for germination. With *dọọ* co-occurring with *nkwu*, it sends the idea that the sprouted palm seed is being transferred to a permanent place for

maturing. *Kuọ* co-occurring with *nkwu* implies a process of tapping from the already matured feminine part of the palm tree while *gbu nkwu* entails cutting bunches or stem or the tree as a whole with matchete. In a monolingual dictionary where such information, pictorials and co-occurrence usage patterns are specified, the specified users of such dictionaries will have no need for a meta-language; especially in a digital platform where audios and visuals are incorporated to complement information (Himmelman, 2012).

Xix. Okuku (a) [okuku] 🗣️ iko e ji añu mmai;

Myiri:

m̄pi [m̄pi] Iko m̄já [ik̄ɔm̄ja], Ìkó méé [ik̄ome] :

Weta okuku ka nna m gbanye gi mmai

Xx .ogbu (a) [ɔgbu] 🗣️ okpoko [okpoko] ètè [ɛtɛ] agbú [agbu]

eriri ekwere ekwe diochi ji arị elu nkwu

From the theme of palm wine tapping, it was observed that there are specific terms for specific item and various activities. These specified terms are simply used in their denotative senses.

4.3.1. Terms associated with oil palm plant and products (nkwu na ihe nrite si na ya)

Umunamu	Lomee	Omoo	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
nkwu' (N)/nkwus /	akwu' /akws/	nkwu' /nkwus/	ekwu' /ekws/	mpfu' /mpfs/	ephu' /ɛfus/	ekwu' /ekws/	Palm
m̄kp̄u' (N) nkwu' /kp̄us̄nkwus /	M̄kp̄u' akwu' /mkp̄rus̄a kws/	m̄kp̄u' akwu' /mkp̄us̄ akws/	m̄kp̄u' ekwu' /mkp̄us̄ekws /	ɛpfu' /ɛpfs/	m̄kp̄u' ephu' /mkp̄rus̄ ɛfus/	m̄kp̄u' ekwu' /mkp̄us̄ek ws/	Palm nuts
av̄uv̄(N) /av̄us̄/	av̄uv̄/a v̄us̄/	av̄u /av̄s̄/	ɛv̄uv̄' /ɛv̄us̄/	m̄v̄u /mv̄s̄/	m̄v̄u /mv̄s̄/	av̄uv̄u /av̄us̄/	palm chaff
ogiri nkwu' (Adj+N) /ogri nkwus /	ogri akwu' /ogri akw s/	ogunú akwu' /ogunua kws/	oguru ekwu' /oguru akws/	Ogù eph̄u oḡuē s/	Oguruè ph̄u' /oguru ɛ̄ s/	ogiri ekwu'/ogiri ekws/	Palm sludge
aki'(N) /aki/	aki' /aki/	Aku' /aku/	aki' /aki/	aku' /ak s/	aku' /aku/	aku' /aku/	Palm kernel

ígù (N) /igu/	Ígù /igu/	Ígú /igu/	Ígù /igu/	ígù m̀p̀f̀ú /igu mpfu/	ígù /igu/	ígù /igu/	Palm frond
óímú' nkwu (Adj+N) /ɔmɯ nkwɯ/	omú' /ɔmɯ/	ómí' /ɔmɪ/	ómí' /ɔmɪ/	ómí' /ɔmɪ/	omù ɔmɯ	omú' /ɔmɯ/	tender palm fronds

4.3.2. Terms associated with oil palm plant and products (nkwù na ihe nrite si na ya)

Ụmụnamụ	Lomee	Ọmọọ	Ehugbo	Ikwo	Oshiri	Ogwugwu	Gloss
ázìzà(N) /aziza/	ázìzà /aziza/	ẹ̀zìzà /ɛziza/	ẹ̀zìzà /ɛziza/	ẹ̀zìzà /ɛziza/	ẹ̀zìzà /ɛziza/	ẹ̀zìzà /ɛziza/	Broom
m̀m̀ánù'(N) /mOanus/	Mmánù' /mOanus/	mánù' /manu/	mánù' /man u/	mánù' /manu/	mánù' /Oanus	mánù' /manu/	Oil
ǹchà(N) /ntja/ ntungu /ntunɣu/	ǹchà /ntja/	ngù /ngu/	ǹchá /ntja/	ǹcha /ntja/	ǹchà /ntja/	ǹchà /ntja/	Ashes from palm spikes
ákì ñkùkòrò (N+Adj) /akɪnkukoro/	ákì ñkùkòrò /akɪnkukoro/	ákù ñkù' /akunɣu/	ákì ñkògòrò' /akɪnkogoro /	ákù ñkò /akunko	ákù ñkò /akunko/	ákù ñkùkòrò /akunɣukoro/ /	Fresh white nuts from unripe palm nuts
Mkpòkòrò ákì' (Adj+N) /mkpokoroakɪ/	íchrè ákì' itfreakɪ/	Mkpokol o akì	íchrè ákì' itfreakɪ/		ugbá ákù' /ugbaku/	íchrè è ákù' /ichereakù/	Palm kernel chaff

4.3.3. Terms associated with oil palm plant and products (nkwù na ihe nrite si na ya)

	'òkprù'k pù' /òkprùkp ù/			ÒjÒ rúpfù' (Adj+N) /òdžompfù /			Type of palm seed
ùdé ákí' (N+N) /udeakí/ /	elu ákí' /eluakí/ /	Ude akí	èlùákí' elaakí/	èlùákù /eluakù/	Èlù/elu/	èlù ákù' /eluakù/	Pomade from palm kernel
'òsùkwù (N)/òsùkw ù/	'òsùkwù /òsùkwù /	Ókpòlókò nkwù' /okpoloko ηkwù/		Òsùptù /òsùptù/	àkàkpòr' òkò/aka kpòròkò/	'òkp'ùrù'kpù' /òkpùrùkpù/	Type of palm seed
ìkè nkwù (Adj+N) /ikèηkwù/	Íshí akwù' /ijíakwù/	Íshí èkwù' /isiekwù/	Ísì èkwù' /isiekwù	Íshí èpfù/ /ijíèfù/	Íshí èpfù/ ijíèfù	Íshí /akwù/ /ijíakwù/	Palm bunch
akíjìká(N) /akírìka/	akírìká /akírìka/	èkírìká /èkírìka/	èkírìká /èkírìka/	èkírìká /èkírìka/	èkírìká /èkírìka/	èkírìká /èkírìka/	Dried palm frond
	Íshí rúpòyírí /ijímpojrí /	Íshí mgborog u /itjímgbor ogu/	Ípògò/ip ogo/	Ígbòmà /igboma/	Ígbòmà /igboma/		Dried lower part of the palm frond

5.0 Discussions

From the data presentation and analysis, detailed empirically grounded information on lexical entries of selected crop cultivation terms was provided. In line with the views of Frawley, (1988) and Wiegand, (1988), the production processes and products were identified and classified to show class category, pronunciation, and meaning examples on usage, illustrations and semantic co-occurrences. This ensures the availability of potential repository of Igbo crop cultivation lexicon and cultural knowledge that serves as a guide to lexicographers, researchers, and other scholars. This corroborates Romaine's (1994) views that indigenous speech forms preserve the original linguistic features which reorient notable peculiarities and appropriate usage of cultural collocates. For instance, the term *gbaa nkwu* as used by some people for performing the traditional marriage rites is a current usage for expressing the completion of the final marriage rites. However, if the user is made to understand that marriage rites are performed in three stages as *nkwu ajuju*, *nkwu ihu aku nwanyi* and *nkwu ukwu* or *nkwu mkporo nwanyi* the users may become competent enough to know when

and how to use each of these terms *gbaa nkwu/ buo mmanya/nkwu nwanyi* (performing of traditional marriage rites in Igbo). As a result, specialised monolingual dictionary preserves these terms and propagates cultural heritage and true identity.

With the digital approach, these terms were further sub-categorised based on themes. Such themes include general cultivation terms, tuber crops (yam cultivation) and tree crops (oil palm plant). Such categorisation avail researchers in historical linguistics and other related disciplines the opportunity to elicit reliable data to validate their researches (Austin & Sallabank, 2011). Having used lexiquepro software for exporting the online template of the selected terms in the World Wide Web, Igbo language in line with the suggestion of Universal Declaration on Cultural Diversity to promote languages in cyberspace. Are, (2015), has secured a digital software application with illustrative visuals that serves as a complementary tool for validating indigenous information on the specific themes. This boosts the question of readership and economic feasibility of monolingual dictionary works in the Igbo

language as researchers, learners, translators and lexicographers are availed the opportunity to be prolific in their choice of words and context of use (Chukwukere, 2005). Prospective learners are also afforded the mastery of Igbo technical lexicon. The post compilation

presentation in lexiquepro format allows for constant update on usages that may suggest a basis for re-assessing inventories of universal relations for new theoretical undertakings as well as reappraising already developed theories that will be valid in the Igbo language.



Source : Nwankwo PhD thesis (2018)

Figure 1: Screenshot of the digital Igbo agricultural dictionary database in the lexique Pro format.

Conclusion:

Without contesting the merits of the bilingual and multilingual procedures used in specialised or general lexicographic materials, this study upholds the opinion that Igbo language needs a monolingual LSP lexicographic

database which takes into consideration the nature of specialised transmission of indigenous and non-indigenous technical terms within the tenets of a user-based approach as proposed by the function theory of lexicography. The simple fact is that although, language dictionaries

are claimed to be incomplete, it is basically necessary to provide at least one in every aspect of life of the language users. This aids researchers to gain insight into vital information on usage patterns of current and atrophied words (such as pronunciation, class category and words in present usage). It is important for field workers to be aware of these because they are likely to come up at some point for future researchers to buttress sensitive cultural information especially

for technical entries should the need arise. Thus, to sustain and preserve true Igbo practices, compiling specialised e-dictionaries, builds confidence in users and learners by providing Igbo language dictionaries for specific purposes(ISP). This study therefore , concludes that it would be pertinent to provide a digital Igbo specialised database (DISD) for other fields to address terminological challenges and global referencing .

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