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HARMONIZING THE ORTHOGRAPHIES OF BANTU LANGUAGES: THE CASE OF GĨKŨYŨ AND EKEGUSII IN KENYA

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Despite the multiplicity of African languages, available literature on the development of these languages points to the need to have their orthographies harmonised and standardised. This is because properly designed orthographies can play a monumental role in promoting their use in all spheres of life, and hence contribute to Africa's socio-economic development. Such harmonisation is practical, especially among languages such as Gĩkŭyŭ and Ekegusii, two distinct Kenyan Bantu languages that are mutually intelligible. This paper examines how similar or dissimilar their phonologies and orthographies are, with a view to proposing how they can be harmonised. The paper concludes that there are benefits that can accrue from such harmonisation efforts, especially because there will be greater availability of literacy materials accessible to the speakers of the two languages.

1. INTRODUCTION

Kioko et al. (2012a: 40) have noted that a number of scholars in Africa have conducted research on and advocated the harmonisation of orthography in African languages (also see Prah, 2003; Banda, 2003). Prah points out that one way to address the multiplicity of African languages is to capitalize on their mutual intelligibility by clustering them and harmonising their orthographies. This makes practical sense because, as Prah's (2003: 23) research reveals, 85% of Africa's total population speaks no more than 12 to 15 languages. To illustrate, many Kenyan languages fall under Bantu, Nilotic and Cushitic language families. Languages in any one group have more similarities than differences in their orthographies and the harmonisation of these orthographies may be beneficial to those who use them. Gĩkŭyŭ and Ekegusii, the two Kenyan languages whose phonologies and orthographies

are discussed below, belong to the Bantu family and are in many respects mutually intelligible.

Ekegusii was classified as E42 by Guthrie (1971: 43), who added that it fell under Zone E40 together with most Kenyan and Ugandan languages[1]. According to Cammenga (2002: 27-33), the language has two dialects: Rogoro (the northern dialect) and Maate (the southern dialect). Cammenga considers the Rogoro dialect to be the standard one, for being the one used in written works such as the Bible, story books, and the grammar texts used to teach Ekegusii in primary school grades 1-3. According to the Kenya National Bureau of Statistics (2010: 397), the Kisii people (the assumed speakers of Ekegusii) totalled 2,205,669 in 2009.

For its part, Gĩkŭyŭ belongs to the Central Branch of the Niger-Congo family. It forms one of the five Bantu languages of the Thagichu subgroup which stretches from Kenya to Tanzania. Guthrie classified it as E 50 language 51 (Guthrie, 1971: 43). According to the Kenya National Bureau Statistics (2010), Kenya had 6,662,576 Agĩkŭyŭ in 2009. As cited in Macharia (2011: 7), Gĩkŭyŭ has five dialects: Southern Gĩkŭyŭ (spoken in Kiambu and southern Murang'a), Northern Gĩkŭyŭ (northern Murang'a), Mathira (Nyeri), Gichugu (northern Kirinyaga) and Ndia (southern Kirinyaga. The southern dialect is considered the standard one.

Kioko et al. (2012a: 41) note that the first Gĩkŭyŭ orthography was designed by Christian missionaries. These were non-native speakers of Gĩkŭyŭ who did not represent the words the way they were pronounced by the native speakers. Kioko et al. observe that "There was thus no one-to-one correspondence between the phonemes and their graphemes." And while the United Kikuyu Language Committee in the 1940s resolved some difficulties in representing vocalic phonemes graphemically, they did not do so with consonantal problems. They, for example, proposed that the cardinal vowel /e/ be represented by the grapheme <ĩ>. But while phoneme-grapheme discrepancies do exist in the Ekegusii vowel system as

[1] Other sources that have similarly classified Ekegusii are: Nurse and Phillipson (1980), Keragori (1995), Nash (2009), Lewis (2009) and Maho (2008).

well (cf. section 4), unlike for Gĩkŭyŭ, no such language committee has ever existed to resolve them.

Before making a case for the harmonization of the orthographies of Gĩkŭyŭ and Ekegusii, the paper will first present the phonemic and graphemic inventories of the two languages in order to establish the extent to which they are similar. Then it will address the discrepancies that are evident between the orthographies and phonologies of the two languages. In view of those discrepancies, the paper will propose how the orthographies can be harmonised and then conclude by outlining the benefits of such harmonization.[2]

2. THE VOWELS OF EKEGUSII AND GĨKŨYŨ

Below we look at the vowel graphemes and phonemes found in Ekegusii and Gĩkŭyŭ. For each vowel, a word in which it occurs is given.

2.1 The vowels of Ekegusii

According to Nyakundi (2010: 10), the Ekegusii orthography has five vowels, namely: *a, e, i, o, u*. However, there are seven vocalic phonemes, as shown in Figure 1. This discrepancy can be explained by the fact that two of the graphemes have two phonological realisations each, as shown below. The grapheme <e> is realised as a mid vowel/e/ in ***egete*** /eɣete/ (stick) and ***ekerito*** /ekeritɔ/ (heavy), but as an open vowel /ɛ/ in ***eyaye*** /ɛjajɛ/ (his or hers) and ***ekioge*** /ekiɔɣɛ/ (eyelash). The grapheme <o> also has two phonemic realisations: half open vowel /ɔ/ in ***rora*** /rɔra/ (see), ***bota*** /βɔta/ (the rising of dough), and ***rosa*** /rɔsa/ (tired), but mid /o/ in ***obokima*** /oβokima/ (ugali), ***kora*** /kora/ (finish) and ***obonge*** /oβoŋge/

[2] The Bible was the main source of data that were used to establish discrepancies between phonology and orthography and as a base for comparing the writing systems in the two languages.

(many). This means that there are homographs, as in the following examples, where (a) and (b) are both spelt as *esese* in (1) and as *soka* in (2):

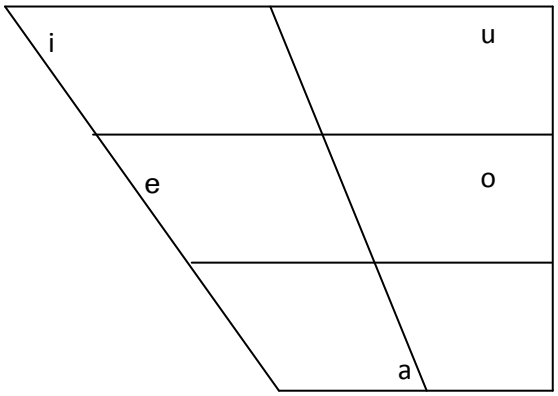
(1) (a) /ɛsɛsɛ/ (things have gone wrong)

(b) /esese/ (dog)

(2) (a) /sɔka/ (clothe – in the imperative)

(b)/soka/ (be ashamed)

Figure 1: Ekegusii vowel chart



(Source: Komenda, 2011: 28)

In Table 1, the vowel sounds and graphemes of Ekegusii are juxtaposed.

Table 1: Ekegusii vocalic phonemes and graphemes

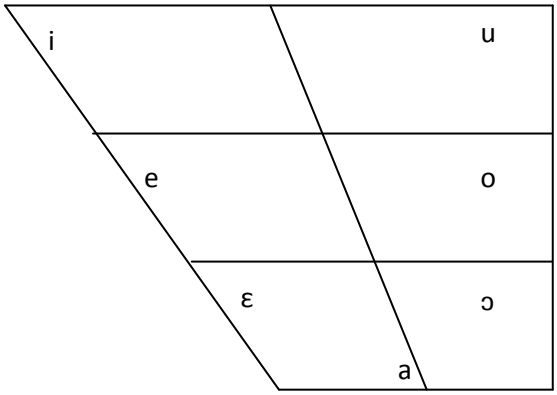
Phoneme	**grapheme**	**illustrative word**	**gloss**
/i/	*i*	*embor**i***	goat
/e/	*e*	***e**nyancha*	lake
/ɛ/	*e*	*ay**e***	you
/a/	*a*	*mes**a***	shine
/ɔ/	*o*	*nk**o**be*	escort
/o/	*o*	*b**o**ka*	wake up
/u/	*u*	*b**u**na*	break

It is evident that there is not a one-to-one correspondence between vowel sounds and graphemes.

2.2 The Gĩkŭyŭ vowels

The Gĩkŭyŭ vocalic phonemes are /a/, /ɛ/, /i/, /e/, /ɔ/, /u/ and /o/, as presented in Figure 2. They are represented graphemically as <*a*>, <*e*>, <*i*>, <*ĩ*>, <*o*>, <*u*>, and <*ũ*>, respectively. Unlike in Ekegusii, there is a one-to-one correspondence between graphemes and phonemes in Gĩkŭyŭ.

Figure 2: Gĩkŭyŭ vowel chart



Source: Mwihaki (1998: 37)

As noted by Kioko et al. (2012a: 41), the Gĩkŭyŭ vowel sound is short in a word like *bara* /ɸara/ (road) and long in *baara* /ɸa:ra/ (look carefully). Thus, vowel length is distinctive. The short sound corresponds to a single vowel letter and the long sound to a double vowel letter.

Table 2: Gĩkŭyŭ vocalic phonemes and their corresponding graphemes

Phoneme	**Grapheme**	**Illustration**	**Gloss**
/i/	*i*	*ira*	yesterday
/e/	*ĩ*	*ĩra*	tell
/ɛ/	*e*	*eka*	hiccup
/a/	*a*	*ara*	spread
/ɔ/	*o*	*onja*	be crippled
/o/	ũ	*ũka*	come
/u/	*u*	*uma*	get out

3. THE CONSONANTS OF EKEGUSII AND GĨKŨYŨ

3.1 The Ekegusii consonants

According to Komenda (2011: 28), Ekegusii has twenty-two consonants. However, our research revealed that they are actually twenty. Komenda (2011) includes the geminates <mm> and <nn> as consonants but we exclude them because they only occur as fillers (meaningless sounds such as *mmm, aaaa* that are used to fill gaps in thought and speech) and not in Ekegusii words. The twenty consonants are the ones that we plot in Table 3.

Table 3: Ekegusii consonant phonemes

PLACE / MANNER	Labial	Dental	Alveolar	Alveo-palatal	Palatal	Velar	Glottal
PLOSIVES	mb		t, nt, nd			k, ŋk, ŋg	
FRICATIVES	β		s, ns			ɣ	
AFFRICATES				tʃ, ntʃ			
NASALS	m	n			ɲ	ŋ	
APPROXIMANTS	w		r		j		

Table 4 pairs up the consonantal phonemes with their corresponding graphemes.

Table 4: Ekegusii consonantal phonemes and their corresponding graphemes

Phoneme	Grapheme	Example	Gloss
/β/	*b*	***b**era*	boil
/mb/	*mb*	*e**mb**ura*	rain
/m/	*m*	***m**ena*	lick
/t/	*t*	***t**ata*	father
/nt/	*nt*	*omo**nt**o*	person
/nd/	*nd*	*e**nd**a*	stomach
/n/	*n*	*bu**n**a*	break
/r/	*r*	***r**oga*	bewitch
/s/	*s*	***s**eka*	laugh
/tʃ/	*ch*	*ama**ch**e*	water
/ntʃ/	*nch*	*i**nch**wo*	come
/ɲ/	*ny*	*e**ny**ongo*	pot
/j/	*y*	*e**y**aberi*	female
/k/	*k*	***k**ogora*	to buy
/ɣ/	*g*	*i**g**oro*	yesterday
/ŋ/	*ng'*	*e**ng'**ombe*	cow
/ŋk/	*nk*	***nk**ai*	where
/ŋg/	*ng*	*e**ng**abi*	impala
/w/[3]	*w*	*b**w**eka*	alone
/ns/	*ns*	*e**ns**e*	world

3.2 The Gĩkŭyŭ consonants

[3] It should be pointed out that /w/ can also be realised through gliding where the root begins with a vowel as in -***eba*** /eβa/ (forget). So, the infinitive ***koeba*** is realised as ***kweba*** /kweβa/ (to forget).

Armstrong (1967), using the southern dialect of Gĩkŭyŭ, identified the following eighteen consonantal phonemes: /mb/, /ɸ/, /m/, /ɲ/ /t/, /θ/, nd/, /r/, /n/, /ʃ/, /ndʒ/, /k/, /ŋg/, /ŋ/, /w/, /h/, /j/ and /ɣ/. She used the phonemic principle to develop the orthography of Gĩkŭyŭ. From our research, however, we discovered that the voiceless inter-dental fricative /θ/ was not a phoneme in Gĩkŭyŭ; it is its voiced counterpart /ð/ that is. Karega (1983), cited in Macharia (2011: 7), however, claims that it is only the Mathira (Nyeri) dialect that has /ð/. According to him, the other dialects use /θ/. We concur with Macharia (2011: 71) that both sounds are found in the Mathira dialect but are not contrastive. They are allophones of the same phoneme.

The Gĩkŭyŭ consonant phonemes are presented in Table 5 below.

Table 5: Gĩkŭyŭ consonant phonemes

PLACE / MANNER	Labial	Dental	Alveolar	Alveo-palatal	Palatal	Velar	Glottal
PLOSIVES	mb		t nd			k ŋg	
FRICATIVES	ɸ	ð				ɣ	h
AFFRICATES				ndʒ			
Nasals	m	n			ɲ	ŋ	
Approximants	w		r		j		

Source: Njoroge (2006: 481)

Table 6: Gĩkŭyŭ consonantal phonemes and their corresponding graphemes

Phoneme	grapheme	Example	Gloss
/ɸ/	*b*	*bata*	need
/mb/	*mb*[4]	*mbata*	duck
/m/	*m*	*muti*	tree
/t/	*t*	*tene*	early
/ð/	*th*	*thina*	poverty
/nd/	*nd*	*nduuma*	arrow roots
/n/	*n*	*nene*	Big
/r/	*r*	*rora*	See
/ʃ/	*c*	*coro*	trumpet
/ndʒ/	*nj*	*njata*	star
/ɲ/	*ny*	*nyanya*	tomatoes
/j/	*y*	*maya*	these
/k/	*k*	*kena*	be happy
/ɣ/	*g*	*gĩra*	come for
/ŋg/	*ng*	*ngara*	mouse
/ŋ/	*ng'*	*ng'etia*	have a look at
/w/	*w*	*wira*	work
/h/	*h*	*haata*	sweep

4. DISCREPANCIES BETWEEN ORTHOGRAPHY AND PHONOLOGY

A close examination of the writing system and the phonology of Ekegusii and Gĩkŭyŭ reveals a number of discrepancies between the two. In relation with Ekegusii, Nyakundi (2010: 11) has claimed that the following consonant

[4] This sequence of letters comes out as a prenasalized /b/. However, /m/ is only slightly perceptible. Indeed our own investigation revealed that some Gikuyu speakers do not prenasalize the sequence it all.

letters do not exist in Ekegusii orthography: b, c, f, h, j, l, q, v, x, z. Yet a number of them have been used in Ekegusii, as in the following examples drawn from biblical books: *Timotheo* appears in the Ekegusii Bible for the book of Timothy, yet the grapheme <*th*> is absent in Ekegusii. However, even in the reading of the Bible, <*th*> is not pronounced as /ð/, as is the case in other Bantu languages like Gĩkũyũ, Kiembu, Kimeru and Kikamba, but as /t/. Similarly, <*l*>, <z> and <*f*> are in principle nonexistent in Ekegusii, yet <*l*> occurs in *Luka* (Luke) (pronounced as /ruka/, though), <z> occurs in *Zaburi* (Psalms), *Zekaria* (Zechariah) and *Ezekieli* (Ezekiel), though it is read as /s/, while <f> is present in *Filemoni* (Philemon) and *Abaefeso* (Ephesians), but is read as /β/ in spoken Ekegusii. Our recommendation is that the graphemes used in these biblical names be written as they are pronounced: thus, *Timotheo* as *Timoteo*, *Luka* as *Ruka, Zaburi as Saburi, Zekaria as Sekaria and Abaefeso as* Afaefeso.

A discrepancy of a different nature is in the use of the sound /ŋ/, represented by both <*ng*>, with a bar over it, in the word *engombe* (cow) and <ng'>–as *eng'ombe*. In school, learners are taught the one with a bar, while in the Bible and other written texts such as Ngoko's (1979) book *Ninyanchete omonwa oito* (I like my language), they encounter <*ng'*>. By way of harmonisation, Ekegusii should use this latter variant with the apostrophe because it is the one that is used in related languages.

In Gĩkũyũ, the palatal alveolar /ʃ/ is orthographically represented by the letter <*c*>. However, it has allophonic dialectal realizations: /tʃ/, /s/ and /ʃ/. In the Gĩkũyũ Bible, however, we find this sound represented by both <*sh*> and <*c*> in the book of J*osh*ua and in *Macakaya* (Lamentations), respectively. To avoid these discrepancies, we suggest that the phoneme should be represented by the grapheme <*s*> in line with related languages like Kikamba. The bilabial fricative /ɸ/, represented by the letter <*b*>, is close to /v/ and /f/ in terms of place and manner of articulation. This probably explains why the Gĩkũyũ Bible uses <*v*> in *Jeho**v**a* (Jehovah) and *Nine**v**e* (Nineveh) and <*f*> in *Ae**f**eso* (Ephesians) and *A**f**ilipi* (Phillipians). The same sound is even represented by <*p*> in ***P**etero* (Peter) and *Afili**p**i*. Intriguingly, the same Bible represents the same sound with the commonly

used <*b*> in *Jaku**b**u* (Jacob) and *Ayu**b**u* (Job). But as is evident from Table 6, the graphemes <*v*>, <*f*> *and* <*p*> are not present in the orthography of Gĩkŭyŭ. Other graphemes that are present only in the Bible are <*l*> and <*z*>. They occur in *Alawii* (Levites), ***L**uka* (Luke), *Ezara* (Ezra) *and* **Z**ekaria (Zechariah).

5. SPECIFIC PROPOSALS FOR HARMONIZING THE ORTHOGRAPHIES OF GĨKŬYŬ AND EKEGUSII

The first proposal for harmonizing the two orthographies concerns the harmonization of the vowel graphemes in the two languages by just adding two vowels, <*ĩ*> and <*ŭ*>, in Ekegusii, to bring this in line with related languages like Gĩkŭyŭ, Kikamba, Kimeru and Kiembu. More importantly, adding the two vowels would help to distinguish between the two different realizations of <*e*> and <*o*>. For instance, <*ese**s**e*> (things gone wrong) could be spelt using the tilde used in Gĩkŭyŭ, as <*ĩsĩsĩ*>, to differentiate it from <*ese**s**e*> (dog). The word <*soka*> (be ashamed) could be spelt as <s*ūka*>, to differentiate it from <*soka*> (clothe – in the imperative). In this way, Ekegusii would have a seven-letter vowel system like Gĩkŭyŭ and related Bantu languages. This is a suggestion already made by Kioko et al (2012b: 15) and we totally agree with it. And it is one which agrees with Guthrie's (1971: 7) observation that "… it would be misleading to represent identical pronunciation differently in different languages".

Since, as Kioko et al. (2012a: 2) have pointed out, in Gĩkŭyŭ, the sounds /s/, /ʃ/ and /tʃ/ are dialectal variants, they could be represented by the grapheme <s>, so as to have a word like <*coro*> (trumpet) written as <soro>. And since the letter <*b*> (pronounced as /f/) is found in both languages in words such as *baba* (father) in Gĩkŭyŭ) and *boka* (wake up) in Ekegusii, the letter <*f*> could be used to spell the two words as <*fafa*> and <*foka*>.[5]

[5] This suggestion only partly agrees with Kioko et al.'s (2012b: 1) suggestion of using <*f*> for Gĩkŭyŭ but <*bh*> for Ekegusii.

6. CONCLUSION

This paper set out to make a case for the harmonization of the orthographies of two Bantu languages, Gĩkŭyŭ and Ekegusii. It first presented the phonemic and graphemic inventories of the two languages, which showed that all the five vowels found in Ekegusii were also found in Gĩkŭyŭ, although the latter has an additional two. Regarding the corresponding consonant inventories, these showed both intra- and inter-language discrepancies: for example, the sounds /ɸ/ in Gĩkŭyŭ and /β/ in Ekegusii, though close to /f/, are orthographically represented by <*b*>. We have proposed that the grapheme <*f*> should be used in both languages. As for vowels in Ekegusii, a discrepancy was noted in the word *esese,* which can be pronounced either as /esese/ or /ɛsɛsɛ/, depending on the intended meaning. We have proposed that the grapheme <*ĩ*> should be adopted to distinguish the two meanings, so that <*ĩ*> represents /e/ and <*e*> represents /ɛ/.

At least two benefits would be reaped from harmonising the orthographies of the two languages. First, as documented by Kioko et al. (2012a), a harmonised orthography would make the production of literacy materials more cost-effective because the same materials would not need to be written in two different orthographies. Second, the harmonisation would make the process of translation from one language into the other easier, since the two languages already have very many common lexical items and share a lot culturally. The exchange of written or translated materials across the two languages would end up enriching the lexis of the two languages. As Banda (2003: 46) argues, properly designed orthographies can play a monumental role in promoting the use of African languages in all spheres of life, and, hence, contribute to the socio-economic development of Africans.

REFERENCES

Armstrong, L. E. 1967. *The Phonetic and Tonal Structure of Kikuyu*. London: Dawsons of Pall Mall.

Banda, F. (ed.). 2003. *Language across Borders*. Cape Town: CASAS.

Banda, F. 2008. "Orthography design and harmonization in development in Southern Africa". *Open Society Initiative for Southern Africa*, 12/3: 39-48.

Bosire, M. 1993. A comparative study of Rogoro and Maate dialects of Ekegusii. Unpublished MA Disseration, University of Nairobi.

Cammenga, J. 2002. *The Phonology and Morphology* of *Ekegusii - A Bantu Language of Kenya*. Koln: Rudiger Koppe Verlag.

Ebibilia Enchenu [The Bible in Ekegusii]. 1990. Nairobi: The Bible Society of Kenya.

Guthrie, M. 1971. *Comparative Bantu: An introduction to the Comparative Linguistics Pre-history of Bantu Languages*, vol. 2. Farnborough: Greyg Press.

Kenya National Bureau of Statistics. 2010. *The* 2009 *Kenya Population and Housing Census: Population Distribution by Age, Sex, and Administrative Units, vol. 1 c*. Nairobi: Government Press.

Keragori, A. 1995. *Totems of Ekegusii*. Nairobi: Jacaranda Design Ltd.

Kioko, A. N., M. Njoroge, and P. Kuria, P. 2012a. "Harmonizing the orthography of Gĩkŭyŭ and Kikamba", in N. Ogechi, J. Oduor & P. Iribemwangi (eds.), *The Harmonization and Standardization of Kenyan Languages,* Cape Town: CASAS, pp. 39-63.

Kioko, A. N., B., Mbori, C. Kitetu, D. Ongarora, F. Buliba, F. Mworia, F. Chai, H. Babusa, H., Mwaliwa, L., Chacha, M. Saidi, M. Njoroge, M., Lonyangapuo, M. Njoka, R. Ndung'u, and N. Ogechi. 2012b. *A Unified Orthography for Bantu Languages of Kenya*. Cape Town: CASAS.

Komenda, S. 2011. An autosegmental analysis of vowel compensatory lengthening in Ekegusii. Unpublished MA thesis. Kenyatta University.

Kuria, P. 2005. An examination of the discrepancies between the graphemic and the phonological structure of Gĩkŭyŭ. Unpublished MA Thesis, Kenyatta University.

Lewis, M. P. (ed.). 2009. *Ethnologue: Languages of the World*, 16th ed. Dallas, Texas: SIL International.

Macharia, D. 2011. Phonological variation and change in Gikuyu: A case study of Mathira dialect in Kenya. Unpublished MA Thesis, Kenyatta University.

Maho, J. 2008. *The Bantu Bibliography* (*African Linguistic Bibliographies*). Koln: Rudiger Koppe Verlag.

Mwihaki A. N. 1998. Loanword nativization: A generative view of the phonological adaptation of Gĩkũyũ loanwords. Unpublished PhD Thesis, Kenyatta University.

Nash, M. C. 2009. Tone in Ekegusii: A description of nominal and verbal tonology. Unpublished Doctoral Dissertation, University of California.

Ngoko, A. M. 1979. *Ninyanchete Omonwa Oito*. Nairobi: East African Publishing House.

Njoroge, M. 2006. Linguistic variation in spoken English as used by teachers in Kenyan primary school. Unpublished PhD Thesis, Kenyatta University.

Nurse, D. and G. Phillipson. 1980. *The Bantu Languages*. London: Routledge.

Nyakundi, P. M. 2010. Motivation, morphological process in Egesembesa Argot Ekegusii-speaking males of western Kenya. Unpublished MA Thesis, Kenyatta University.

Prah, K. 2003. "Going native: Language of instruction in education, development and African emancipation", in Birgit Brock-Utne, Zubeda Desai and Martha Qorro (eds.), *Language of Instruction in Tanzania and South Africa (LOITSA)*, Dar es Salaam: E & D Limited, pp. 14-34.

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