# Ministry of Scientific Research and Innovation 

## ISU ORTHOGRAPHY GUIDE

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This article concerns the Isu language, spoken in Fungom Subdivision, Menchum Division, in the North West Region of Cameroon

ISO 639-3 language code: isu
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## Abbreviations



CHU CHIY Peter, Stephen ANDERSON and B. Elias KUM

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## 1 Introduction

This paper ${ }^{1}$ proposes an initial writing system for Isu, a West Ring language spoken by at least 10,300 people (1994 estimate) in the Fungom Subdivision, Menchum Division of the North West Region, Republic of Cameroon. The Ethnologue lists its full classification as: Niger-Congo, Atlantic-Congo, Volta-Congo, Benue-Congo, Bantoid, Southern, Wide Grassfields, Narrow Grassfields, Ring, West
(http://www.ethnologue.com/show_language.asp?code = isu).
Though the language is spoken over a relatively large area (right up to the Nigerian border), no dialect differences have been noted. This orthography conforms to the guidelines adopted in 1979 by the National Committee for the Unification and Harmonisation of the Alphabets of Cameroon Languages (Tadajeu and Sadembouo, 1979).

In the early 1970's, the Grassfields Bantu Working Group studied the noun class systems of all Grassfields Bantu languages. The noun classes of the Ring languages were described by Larry Hyman and finally published in 1980 (Hyman and Voorhoeve). Then, Larry Hyman went on to study in depth Aghem (Hyman:1979), Isu's better known relative. Finally, from 2000 onwards, Roland Kiessling, a professor in Germany, together with several of his graduate students have been working on Isu, writing a steady stream of linguistics papers and preparing a large grammar of the language. The bibliographical references to all of these papers can be found at the end of this paper.

The Isu language area is quite large and quite remote compared to other languages in the North West Region of Cameroon. The author is very thankful for the following language map of the Isu area, contributed by Colin Davis. In this map, one can see how far it is from the major "Ring Road" (in red) to the village of Isu and then the additional distance from there to various Isu who are living and farming right up to the border with Nigeria. One can also see the long language border that they share with the Esimbi language to the Southwest and the opposite long border with a sparsely populated forest reserve to the Northeast.

[^0]

## 2 Alphabet

The Isu segmental alphabet is made up of 28 consonants (including 3 that are only used in loan words from English) and seven vowels. They are represented below in upper and lower cases in their alphabetical order:

A a, B b, Bv bv, Ch ch, D d, Dz dz, E e, F f, G g, Gb gb, Gh gh, H h, I i, ¥ í, J j, K k, Kp


### 2.1 Consonants

The consonant phonemes, their allophones and graphemes are presented in the table below. We also show their use in various positions in the word.

| Phoneme | Allophone | Grapheme | Initial position | Medial position | $\begin{gathered} \text { Final } \\ \text { position } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (/p/) ${ }^{1}$ | [p] | $\mathbf{P} \mathbf{p}$ | pì̀ <br> to burn | - | - |
| /b/ | [b] | B b | bi to give birth | nàbì to dig | - |
|  | $\left[p^{2}\right]^{2}$ |  | - | - | nàb <br> to excavate |
| /t/ | [t] | T | $\begin{aligned} & \hline \mathbf{t i} \\ & \text { three } \end{aligned}$ | ute boundary | - |
| /d/ | [d] | D d | $\begin{aligned} & \hline \text { dì } \\ & \text { to cry } \\ & \hline \end{aligned}$ | ndùy potato | - |
|  | $\left[\mathrm{t}^{\prime}\right]^{2}$ |  | - | - | bud <br> cat |
|  | $[\mathrm{r}] \sim[1]^{3}$ | L 1 | - | tìl̀̀ to press, iron | - |
| /k/ | [k] | K k | ka monkey | aka <br> egusi seeds | - |
|  | [2] ${ }^{4}$ | , | - | isa'è splinter | sà <br> fishhook |
| /g/ | [g] | G g | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { gû } \\ \text { skin; shoe } \end{array} \\ \hline \end{array}$ | $\begin{aligned} & \hline \text { ngî } \\ & \text { giraffe } \end{aligned}$ | - |
|  | $[\mathrm{b}]^{5}$ |  | - | sigi cut to pieces | - |
|  | $\left[q^{\wedge}\right]^{2}$ |  | - | - | $\begin{array}{\|l\|} \hline \text { utsug } \\ \text { day } \\ \hline \end{array}$ |
| /kp/ | [kp] | Kp kp | kpi to harvest | kikpa'a spoon | - |
| /gb/ | [gb] | Gb gb | gbù <br> to cut off | kìmgbêe tsetse fly | - |
| /pf/ | [pf] | Pf pf | pfo <br> to die | ipfo death | - |
| /bv/ | [bv] | Bv bv | bvò <br> to fall | mìmbvì oil | - |
| /ts/ | [ts] | Ts ts | $\begin{array}{\|l} \hline \text { tsam } \\ \text { war } \\ \hline \end{array}$ | $\begin{aligned} & \text { itsi } \\ & \text { fish } \\ & \hline \end{aligned}$ | - |


| Phoneme | Allophone | Grapheme | Initial position | Medial position | Final position |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /dz/ | [dz] | Dz dz | $\begin{array}{\|l\|} \hline \text { dzì } \\ \text { to say } \\ \hline \end{array}$ | ndzû <br> sheep | - |
| $(/ \mathrm{t} \mathrm{J} /)^{6}$ | [ t ] | Ch ch | Châs Charles (E) | kichîn <br> kitchen (E) | chôych church (E) |
| $(/ \mathrm{d} 3 /)^{6}$ | [d3] | J j | Josèf <br> Joseph (E) | fijà̀y fragile being (E) | kabej cabbage (E) |
| /f/ | [f] | F f | $\begin{aligned} & \hline \text { fè } \\ & \text { to sell } \end{aligned}$ | $\begin{aligned} & \text { ifu } \\ & \text { axe } \end{aligned}$ | - |
| /v/ | [v] | V v | vìl̀̀ <br> to hoe ground | ivu death | - |
| /s/ | [s] | S s | sù to wash | asay maize | - |
| /z/ | [z] | Z z | $\begin{aligned} & \hline \text { zù } \\ & \text { bee } \\ & \hline \end{aligned}$ | tizu honey | - |
| (/S/ $)^{6}$ | [ [] | Sh sh | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { shîd } \\ \text { shirt (E) } \end{array} \\ \hline \end{array}$ | Neshı̀n <br> Nelson (E) | tìsh teach (E) |
| /8/ | [४] | Gh gh | ghayi <br> become dry | ighe breast; udder | - |
| (/h/) ${ }^{6}$ | [h] | Hh | Hay! <br> No way! | ł̀ḥ̂̂! Well! | - |
| /m/ | [m] | M m | mu to drink | kùmì to repay | anam thing |
| /n/ | [n] | N $n$ | nè to hide | kina rock | ulun shame |
| /y/ | [口] | V 7 | yùmì <br> to heat up | gù̀ì <br> to pray | may to join |
| /1/ | [1] | L 1 | la to be poor | ila poverty | - |
|  | $[\mathrm{r}] \sim[1]^{3}$ |  | - | bili to mix | - |
| /w/ | [w] | W w | wà child | iwe rain | ndàw <br> house |
| /j/ | [j] | Y y | yàyì <br> to crawl | kiyani gigantic thing | ikay charcoal |

${ }^{1}$ The voiceless stop / $\mathrm{p} /$ is shown in parentheses because it occurs in only one word in our data.
 final and especially in utterance-final position.
${ }^{3}$ The contrast between the voiced stop $/ \mathrm{d} /$ and the lateral $/ 1 /$ is neutralised when occurring in $\mathrm{C}_{2}$ position before an echo vowel: there both of them vary between [1] and [r], with [1] more frequent in slower, more careful speech and [r] more frequent in faster speech. The underlying consonant can sometimes be discovered for verbs by looking at the shorter perfective form.
${ }^{4}$ The voiceless stop /k/ becomes a glottal stop [?] when a $\mathrm{C}_{2}$ consonant, whether that consonant be word-final (where it is unreleased) or whether it is followed by an echo vowel.
${ }^{5}$ The voiced stop / g / becomes a uvular fricative $[\mathrm{b}]$ when in $\mathrm{C}_{2}$ position followed by an echo vowel.
${ }^{6}$ The alveopalatal fricatives and affricates $/ \mathrm{S} /, / \mathrm{t} \mathrm{f} /$ and $/ \mathrm{d}_{3} /$ are in parentheses because they are only realized as such (without the allophonic variation mentioned in section 2.1.2 below) when they are loan words. Similarly, the glottal fricative $/ \mathrm{h} /$ is in parentheses because it is only found in Isu
exclamatory remarks or loan words. All these are nevertheless included in this chart so that Isu people can write these words (the vast majority borrowed from English) in their own language.

### 2.1.1 Nasal-Consonant complexes

One kind of consonant complex found in Isu is where the first consonant is a nasal that is pronounced at the same place of articulation as the following consonant. (Though we have noticed a few such nasal consonants that appear to be syllabic, we have not found any contrast to date between syllabic and non-syllabic nasals, as found in neighbouring Weh, so we will treat them all the same for the time being.) Most of the basic consonants may be preceded by such homorganic nasal consonants, as shown in the following table:

| Consonant complex | Allophone | Grapheme | Initial position | Medial position | Final position |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /Nb/ | [mb] | Mb mb | mbam cobra | tìmbà' clouds | - |
| /Nt/ | [nt] | Nt nt | ntà' <br> palace | ìntùm monkey (sp) | - |
| /Nd/ | [nd] | Nd nd | ndàw house | ùndây debts | - |
| /Nk/ | [ yk ] | Nk nk | nkwây xylophone | kìnkâm frog | - |
| /Ng/ | [ g g ] | Ng ng | $\begin{array}{\|l\|} \hline \begin{array}{l} \text { ngî } \\ \text { giraffe } \end{array} \\ \hline \end{array}$ | ingali violence | - |
| /Ngb/ | [nmgb] | Mgb mgb | - | fimgbû tapping tool | - |
| /Npf/ | [mpf] | Mpf mpf | - | ìmpfù crocodile | - |
| /Nbv/ | [mbv] | Mbv mbv | mbvì <br> hen | mìmbvò oil (n) | - |
| /Nts/ | [nts] | Nts nts | ntsà' <br> trap (n) | $\begin{aligned} & \text { mìntŝ̂' } \\ & \text { salt } \\ & \hline \end{aligned}$ | - |
| /Ndz/ | [ndz] | Ndz ndz | ndzû <br> sheep | findzât mouse | - |
| /Nf/ | [mf] | Mf mf | mfàd <br> joint | ìmfù crocodile | - |
| /Ns/ | [ns] | Ns ns | - | fànsà' needle | - |
| /Nz/ | [nz] | Nz nz | - | mìnzù cleared farms |  |
| / N / | [刀\%] | Ngh ngh | - | mìnghû <br> little people | - |
| /Nm/ | [m:] | Mm mm | mmwànì <br> to grope | - | - |
| /Nn/ | [n:] | Nn nn | nnây scorpion | - | - |
| /N1/ | [nl] | N1 nl | nle type (n) | mànlû <br> palm wine | - |

### 2.1.2 Consonants plus ' $y$ '

Another kind of consonant complex is where the second element is the palatal glide [j] or its rounded cousin [ $\Psi$ ]; both are always written in Isu as " y ". Only nine of the basic consonants have been found with these semivowels following, as seen in the table below:

| Consonant complex | Allophone | Grapheme | Initial position | Medial position | Final position |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /bj/ | [bj] | By by | byàyì to seize | - | - |
|  | $[\mathrm{bu}]^{1}$ |  | - | mbyòyì bell | - |
| /tj/ | [tj] | Ty ty | tyeb limper | ùntyàyî <br> caps | - |
|  | $[\mathrm{t} ¢]^{1}$ |  | $\begin{array}{\|l\|} \hline \text { tyכŋJ } \\ \text { to call (IMPF) } \\ \hline \end{array}$ | - | - |
| /dj/ | [dj] | Dy dy | dyaji to move with long strides | ndya'a <br> to waste time | - |
|  | $[\mathrm{d} ¢]^{1}$ |  | dyò’’ <br> to sit; remain | - | - |
| /kj/ | $[\mathrm{kj}] \sim[\mathrm{t}]]^{2}$ | Ky ky | kyali to praise | ikyəŋi ankle | - |
|  | $\left.[\mathrm{ku}]^{1} \sim[\mathrm{t}]\right]^{2}$ |  | kỳ̀̀ì <br> to be delicious | - | - |
| /gj/ | $[\mathrm{gj}] \sim[\mathrm{d} 3]^{2}$ | Gy gy | $\begin{aligned} & \text { gyayi } \\ & \text { to tilt } \end{aligned}$ | igyeli <br> folding (n) | - |
| /fj/ | [fj] | Fy fy | fya'a to suffer | ifyây frightfulness | - |
| /mj/ | [mj] | My my | myì̀ì <br> to remember | imyay lack of knowledge | - |
| /nj/ | $[\mathrm{n}]^{3}$ | Ny ny | nyâm animal | tinya'a eye excretions | - |
| /lj/ | [1]] | Ly ly | lyabi to be fat | ilya'ì foolishness | - |

${ }^{1}$ The semivowel $/ j /$ becomes rounded to $[\Psi]$ preceding rounded vowels, except when following the prefix /i-/.
${ }^{2}$ The two velar stops $/ \mathrm{k} /$ and $/ \mathrm{g} /$ that occur together with the $/ \mathrm{j}$ / semivowels are in free variation with their respective alveopalatal affricates [ t$]$ ] and [ d 3 ] in all environments.
${ }^{3}$ We are treating the phonetic palatal nasal $[\mathrm{n}]$ as a fusion of the underlying consonants $/ \mathrm{nj} /$ (i.e. a palatalized version of $/ \mathrm{n} / \mathrm{)}$ instead of as a separate consonant. There are three advantages of this interpretation: $[\mathrm{n}]$ never occurs finally and would thus be an exception to the rule that individual nasal consonants can occur in $\mathrm{C}_{2}$ position; there is no other underlying alveopalatal consonant in Isu; and treating it here reduces the number of our underlying consonants and basic graphemes above.

### 2.1.3 Consonants plus ' $w$ '

Another kind of consonant complex is where the second element is the labial-velar glide [w], which is always written in Isu as " $w$ ". Most of the main consonants in Isu may be followed by this semivowel, as in the following table:

| Consonant complex | Allophone | Grapheme | Initial position | Medial position | Final position |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /bw/ | [bw] | Bw bw | bwám сир | ibwo' bundle | - |
| /tw/ | [tw] | Tw tw | twábí to sharpen | utwab intelligence | - |
| /dw/ | [dw] | Dw dw | dwà' to try to move | ndwàm never | - |
| /kw/ | [kw] | Kw kw | kwali to cough | ukwe <br> arm | - |
| /gw/ | [gw] | Gw gw | $\begin{aligned} & \hline \text { gwo’ } \\ & \text { to rub } \end{aligned}$ | tìngwò’ fists | - |
| /pfw/ | [pfw] | Pfw pfw | - | ipfwo burial | - |
| /tsw/ | [tsw] | Tsw tsw | tswod <br> to knot | utswôd trouble | - |
| /dzw/ | [dzw] | Dzw dzw | dzwàb to be good | tidzwî river; stream | - |
| /fw/ | [fw] | Fw fw | fwod to mix | ufwe <br> leg | - |
| /sw/ | [sw] | Sw sw | swé <br> to suck out | iswam palmtree | - |
| /zw/ | [zw] | Zw zw | zwe to buy | kizwà speargrass | - |
| /mw/ | [mw] | Mw mw | mwây lover | kimwa' <br> rooster; cock | - |
| /nw/ | [yw] | Jw yw | ywâ crowd | ayẁ̀ because | - |
| /lw/ | [lw] | Lw 1w | lwıे' <br> to bewitch | kilwâa spinach (sp) | - |

### 2.1.4 Consonants plus ' $h$ '

Another kind of consonant complex is where the second element is the velar glide [ $\underset{\Psi}{ }]$, though it also frequently sounds like aspiration [h]. Because this sound occurs only in a very limited environment, we have decided to always write it as " $h$ ". The only places we have found it so far are exemplified below:

| Consonant <br> complex | Allophone | Grapheme | Initial <br> position | Medial <br> position | Final <br> position |
| :--- | :--- | :--- | :--- | :--- | :--- |
| /bu/ | $[\mathrm{bu}] \sim[\mathrm{bh}]$ | Bh bh | - | mbhi <br> world | - |
| /ku/ | $[\mathrm{ku}] \sim[\mathrm{kh}]$ | Kh kh | khu <br> to have | ukhi <br> money | - |
| /gu// | $[\mathrm{gu}] \sim[\mathrm{gh}]$ | Gh gh $^{1}$ | Ghê <br> (male name) | nghî <br> eyebrow | - |
| /bvu/ | $[\mathrm{bvu}] \sim[\mathrm{bvh}]$ | Bvh bvh | bvhゝ̀s <br> to fall | - | - |

${ }^{1}$ Note: We are aware that we are using the "gh" digraph to write either the voiced velar fricative $/ \mathrm{\gamma} /$ (See Section 2.1 above) or this voiced velar stop plus velar semivowel. In practice, these two phonetic outputs are actually very close to each other and both of them are very rare in Isu, so we expect little or no confusion.

### 2.1.5 Double fricative consonants

Isu has several fricative consonants which can occur long or short. Since this contrast can cause a difference in meaning, the long fricatives will be written by doubling the letter of the consonant, as in the examples below:

| ssay | to discuss (PERF) | say | to split wood (PERF) |
| :--- | :--- | :--- | :--- |
| zzo's | to teach (IMPF) | zo's | to lean (IMPF) |
| uffu | friendship | ifu | mushroom (sp) |
| ivvin | price | kìvùvòẏ̀ | soldier ant |

We have also noted a highly irregular variation that is found in only six idiosyncratic words (but not with similar words of the same shape). These appear to maintain their unusual variation because they are such frequently used words in normal speech:

| ffi | [f:í] | to exit (PERF) | shi | [ [jí] | to exit (PERF) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ffii | [f:íá] | to exit (IMPF) | shii | [[íà] | to exit (IMPF) |
| kiffii | [káf:íá] | thing | kishii | [kójíá] | thing |
| uffii | [úf:íá] | things | ushii | [úfíá] | things |
| fifii | [fáfíá] | narrow thing | fishii | [fáfíá] | narrow things |
| fiffii | [fáfí̀̀] | small thing | fishîi | [fáfí̀̀] | small things |

### 2.1.6 Consonant orthography rules

Various rules about which consonants can occur in which positions or which can occur before and after other consonants are important to learn. Here is a partial list of consonant orthography rules:

1. Never write "r". If you hear an " r ", write "l" instead.
2. The only consonants that can be word-final are "b", "d", " g ", "m", "n", " $\mathrm{y} "$ and " ' ".
3. If you hear a nasal consonant before " $k$ " or " g ", always write " n ".
4. If you hear a nasal consonant before "kp" or "gb", always write " m ".

### 2.2 Vowels

The Isu language has seven vowel phonemes, presented with their allophones and proposed graphemes in the table below. The sounds are shown as they occur in different positions of the word.

| Phoneme | Allophone | Grapheme | Initial position | Medial position | Final position |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /i/ | [i] | I i | ibe locust | bi' <br> to bring | bì <br> goat |
| /e/ | [e] | E e | - | legwo cassava | zè to untie |
|  | $[\varepsilon]^{1}$ |  | - | izem <br> song | - |
| /ə/ | [ə] | ¢ | - | sig <br> to go to bush | $\begin{array}{\|l\|} \hline \text { tsi } \\ \text { to spit } \\ \hline \end{array}$ |
|  | $[\partial] \sim[\Lambda]^{2}$ |  | - | $\begin{array}{\|l} \hline \text { ibin } \\ \text { dance ( } n \text { ) } \end{array}$ | - |
|  | $[\Lambda]^{3}$ |  | - | zid to sweep | - |
| /a/ | [a] | A a | aghi <br> wives | iwad abyss | kiba fufu |
| /u/ | [u] | U u | uli marrow; fat | bum to hunt | idzu termite |
| /v/ | $[u] \sim[\theta]^{4}$ |  | - | usum farm (n) | - |
|  |  | 0 o | - | - | idzo jealousy |
| /0/ | [〕] | 50 | - | $\begin{aligned} & \hline \text { zày } \\ & \text { wind (n) } \end{aligned}$ | awo hands |

${ }^{1} / \mathrm{e} /$ is always realised as the more open [ $\varepsilon$ ] in closed syllables.
${ }^{2} / \partial /$ is usually lowered to or towards the more open $[\Lambda]$ in syllables preceding $/ \mathrm{p}, \mathrm{m}, \mathrm{n}, \mathrm{l} /$ in $\mathrm{C}_{2}$ position.
${ }^{3} / \partial /$ is always realised as [ $\Lambda$ ] before any $/ \mathrm{d} /$ in C 2 position.
${ }^{4} / \mathrm{v} /$ is only found after fricative consonants /f, v, s, z, pf, bv, ts, dz, y/. In this position, it contrasts with $/ \mathrm{u} /$ in open syllables but does not contrast with $/ \mathrm{u} /$ in closed syllables (where $/ \mathrm{v}$ / always follows fricative consonants and $/ \mathrm{u} /$ follows the other consonants). In all these positions, it varies phonetically from $[u]$ (a rounded vowel near [ $u$ ]) to $[\theta]$ (a rounded vowel near schwa). The phonetic rounded vowel [o] is only found in Isu as a rapid variant of [wa].

### 2.2.1 Vowel length

Isu has contrasting short and long vowels. The long vowels are written as a sequence of two identical vowels. Examples of these long vowels and corresponding short vowels are given below in various non-verbs:

| wii | old times past | wi | wife |
| :--- | :--- | :--- | :--- |
| ughêe | grass | ughe | bitterleaves |
| t̀̀̀ | until (CONJ) | tì | like; as if (CONJ) |
| mbàa | nail | mbâ | fence |
| ifuu | axe | ifu | mushroom (sp) |
| itsôo | advice | ntsô | traditional council |
| mכد | or | mô' | one |

In verbs, the long vowel is a frequent way to mark the imperfective mood (IMPF) in contrast to the short vowel for the more frequent perfective mood (PERF), as below:

| dìi | to cry (IMPF) | dì | to cry (PERF) |
| :--- | :--- | :--- | :--- |
| see | to slaughter (IMPF) | se | to slaughter (PERF) |
| bvì | to fall (IMPF) | bvi | to fall (PERF) |
| saa | to split wood (IMPF) | sa | to split wood (PERF) |
| kuu | to find (IMPF) | ku | to find (PERF) |
| dzoo | to be jealous (IMPF) | dzo | to be jealous (PERF) |
| bvj̀د | to fall (IMPF) | bvò | to fall (PERF) |

### 2.2.2 Echo vowels

Isu frequently has what we choose to call an "echo vowel" following a $\mathrm{C}_{2}$ consonant in a root. The main reason we call it an echo vowel is that the vowel is very soft and hard to hear compared to the stronger vowel before the $\mathrm{C}_{2}$ consonant. Below are some examples of such lax "echo vowels" in Isu (usually " $\mathbf{i}$ ", sometimes " $\mathbf{i}$ "):

| ifemi | [ífémí] | gossiping | ka | [kálá] | only; exclusively |
| :---: | :---: | :---: | :---: | :---: | :---: |
| zònı̀ | [ázònว̀] | concerning (PREP) | bùgi | [bùcว̇] | nine (NUM) |

Once again, many imperfective verbs take additional vowel length at the end of the root and this length is realized as an "echo vowel" in the presence of a $\mathrm{C}_{2}$ consonant:

| saỳ̀ | [sáyá] | to disappear (IMPF) | say | [sáy] | to disappear (PERF) |
| :--- | :--- | :--- | :--- | :--- | :--- |
| nyàbì | [nàbà] | to waste (IMPF) | nyàb | [nàp'] | to waste (PERF) |

### 2.2.3 Vowel diphthongs

Of all the possible combinations of adjacent vowels, only four are actually found in Isu, as shown in the following table (notice that tones are only marked on the first vowel of such diphthongs for both vowels, when tone marks are needed):

| Phoneme | Allophone | Grapheme | Initial position | Medial position | $\begin{gathered} \text { Final } \\ \text { position } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: |
| /iə/ | [iə] | Ii ii | - | miimi <br> to stutter | $\begin{array}{\|l\|} \hline \text { fii } \\ \text { to go out } \end{array}$ |
| /ia/ | [ia] | Ia ia | - | nìa'à <br> to rain (IMPF) | kia to cook |
| /us/ | [us] | Us us | - | - | mus <br> to drink |
| /00/ | [uJ] ${ }^{1}$ |  | - | - | isûo joke |

${ }^{1} / \mathrm{v} /$ / is only found after fricative consonants /f, v, s, z, pf, bv, ts, dz, $\mathrm{y} /$. Crucially, it does not contrast with / $\mathrm{u} /$ /, but is found in complementary distribution in closed syllables (where $/ \mathrm{v} /$ always follows fricative consonants and $/ \mathrm{u}$ / follows other consonants).

### 2.2.4 Vowel orthography rules

Various rules concerning which vowels can occur in which positions are important to learn. Here is the only vowel orthography rule we have proposed so far:

1. The vowel $\mathbf{o}$ should only follow the consonants $\mathbf{f}, \mathbf{v}, \mathbf{p f}, \mathbf{b v}, \mathbf{s}, \mathbf{z}, \mathbf{t s}$ and $\mathbf{d z}$ and only then when it is word-final.

## 3 Pitch and Tone

So far, we have identified seven pitch patterns in Isu that appear to contrast on roots: three level pitches, high [á], mid [ā] and low [à]; three falling contour pitches, high-mid [ā], high-low [â], and low-falling [ä]; and a single low-mid rising contour [ă]. A deeper analysis will likely show that the mid pitch should be seen as downstepped high tone, the high-mid falling pitch as a high-downstepped-high falling tone and the low-mid rising pitch as a low-rising-to-downstepped-high tone. However, for the purposes of this practical orthography for Isu, the important issue is how many different pitch patterns contrast in specific environments, so we will discuss our seven pitches as those most relevant to this orthographic proposal.

### 3.1 Lexical pitch contrasts marked by diacritics

At this point in time, we have discovered many pairs of words that contrast only by their pitch, these being especially numerous between low and high tone verbs. After their collection, we carefully analyzed these pitch contrasts (especially those between non-verbs) in order to see if we might propose a pitch writing system that does not need to mark the complete seven-way pitch contrast. We then discovered that minimal pitch pairs are very rare between the three different falling pitches and almost non-existent between high, mid and the rising pitches. These facts have given us the confidence to propose an initial writing system that groups the seven pitches into three groups and marks each group as below:

1. All three falling pitches to be marked with a falling diacritic, i.e. "â"
2. All low, non-falling pitches to be marked with a low pitch diacritic, i.e. "à"
3. All remaining high, mid and rising pitches to not be marked by any diacritic at all. It is common orthographic practice to indicate one of the most frequent contrastive pitches by specifically omitting to mark a diacritic over the vowel and high pitches are by far the most frequent pitch in Isu. These decisions are summarized in the table below:

| Contrastive Pitches | Phonetic Pitch | Grapheme (Diacritic) | Examples | Frequency |
| :---: | :---: | :---: | :---: | :---: |
| High | [á] | a | ikemi assigned bushland | Very many roots, verbs and non-verbs |
| Mid | [ $\overline{\text { a }}$ ] |  | ùnemi adult | Quite rare: twenty monosyllabic roots |
| Low-Mid <br> Rising | [ā] |  | ìndzuu intestine | Quite rare: only five monosyllabic roots |
| Low | [à] | à | tàa five | Very many roots, verbs and non-verbs |
| Low-Falling | [à] | â | tâa father | Many non-verbs |
| High-Low Falling | [â] |  | ivû feather | Many non-verbs |
| High-Mid Falling | [ā] |  | iwûm egg | Many non-verbs |

Our proposal is to write all Isu words as they occur in isolation (i.e. as they occur when pronounced by themselves), and it is these forms that will be written in the dictionary. Isu speakers should have no problem reading or pronouncing the actual phonetic pitch of entire sentences as long as they easily recognize the meanings of all the individual words that make up that sentence and any grammatical tone diacritics that might be required by such a system for writing grammatical tone changes (see following section). The huge advantage of this is that the written words have a "constant word image", an issue which has been proven to greatly aid fluent reading once readers have gained a certain level of fluency.

It is fairly easy to find Isu words where the only difference between them is pitch. For example, below you will find a few of the many minimal pairs (or triplets) between the most frequently contrasted pitch patterns from the three different groups of pitches:

| ibam | [íbám] | attaching |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| ibâm | [íbâm] | forgetfulness |  |  |  |
| ibàm | [íbàm] | behind |  |  |  |
| dzi | [dzá] | to be dirty | say | [sáj] | to sharpen |
| dzì | [dzà] | to remove | sày | [sàj] | to choose |
| dzât | [dzà] | voice | sây | [sàj] | gizzard |
| tifon | [táfón] | $s i x$ | ibi | [íbí] | kola-nut |
| tifôy | [táfôn] | hearts | ibî | [íbî] | laps |
| iwe | [íwé] | mosquito | ti | [tı́] | aforementioned |
| iwê | [íwē] | bodies | tit | [tə̄] | as if; like (CONJ) |
| ndzàn | [ndzàn] | castor oil | kày | [kàj] | to be cold |
| ndzây | [ndzày] | song | kây | [käj] | each |

As mentioned above, there are rare minimal pairs that contrast within the three groups of pitches. Fortunately, most of these minimal pairs come from different grammatical classes and therefore run less of a risk of being confused in context. It is therefore our feeling that we should test the possibility that these few words can be written identically even though they will be pronounced with a different pitch. All of the orthographically ambiguous word pairs that we have found in our data so far are shown below:

| awo | [áwó] | hands (noun:pl) | isi | [ísá] | eye; seed (noun:sg) |
| :---: | :---: | :---: | :---: | :---: | :---: |
| awo | [áw̄̄] | to; at (prep.) | isi | [ísə̄] | ahead of (prep.) |
| awo | [áw̄̄] | there (dem. adj.) |  |  |  |
| gha | [̌á] | to look proud (v) | fi | [fђ] | there (postv. ADV) |
| gha | [үǎ] | you (subj. pron.) | fir | [fว̀] | then (prev. AUX) |

We feel that the above Isu words will rarely if ever be confused in context because they belong to different grammatical classes and are thus found in different positions in Isu sentences. It is because of this that we propose to write high-mid, high-low and low-fall falling pitches with the same diacritic mark, and also to leave all high, mid and rising pitches without diacritic marks to distinguish their pitch. In addition to the few words above which can be distinguished in spoken speech but not by their written word form, Isu
also has many homophones where both the pronunciation and the written form are identical (and no attempt is made to distinguish them in their written form), as below:

| bwam | [bwám'] | cup (noun:sg) | dzî̀ | [dzà] | voice |
| :--- | :--- | :--- | :--- | :--- | :--- |
| bwam | $\left[\right.$ bwám'] $\left.^{\prime}\right]$ | to build (v) | dzî̀ | [dzä] | bundle |

The pitch patterns on long vowels and diphthongs are written on only the first vowel of the two-vowel sequence, as below:

| tàa | [tà:] | five <br> tâa | [tà:] | father | ifuu <br> ifûu |
| :--- | :--- | :--- | :--- | :--- | :--- | | [ífú:] |
| :--- |
| [ífú:] | | axe |
| :--- |
| plantain leaf |

Isu words with echo vowels need to have their pitch pattern spread over the two vowels of the root because of minimal pitch sets like the following:

```
dyani [djání] to move with long strides (v)
dyàyi [djàyī] even; also; immediately (ADV)
dyàyì [djàyì] to pass through (v)
```

A couple more minimal pitch pairs with these echo vowels are presented below:

| dzoyi | [dzóní] | to return | ffili | [f:へ́lá] | to chew; to chomp |
| :---: | :---: | :---: | :---: | :---: | :---: |
| dzònı̀ | [dzònì] | to prepare | ffilì | [f:へ̂lò] | to turn; to chang |

Finally, Isu noun prefixes can have high or low tones on them and, occasionally, one finds a pair of words that differ orthographically by the pitch mark on their prefix, as below:

| kidzôy | [kádzồn] | good luck | filûu | [fólû:] | pineapple |
| :--- | :--- | :--- | :--- | :--- | :--- |
| kìdzồ | [kə̀dzว̀n] | blade of hoe | mìlûu | [mòlü:] | pineapples |

If, upon testing the pitch marking system shown above, it seems that it needs further refinement, the Isu community should perhaps decide upon a separate diacritic to distinguish the low-falling pitch from the two high-falling pitches.

Recently, in another Grassfields Bantu language, after extensive research and testing, they found that they could get by with marking tone on nouns and verbs but omitting tone marks from any other word classes unless those other words were part of minimal tone pairs. This might also be a possibility for Isu in the future, but it is the author's view that such a move should wait until adequate research and testing has been done on Isu as well.

### 3.2 Grammatical meanings marked by diacritics

Many Grassfields Bantu languages need one or more additional diacritics to indicate specific grammatical meanings because these meanings are often signalled by tonal morphemes (morphemes without any consonants or vowels) which cause various changes in pitch throughout the sentence. The effects of these tonal morphemes are often found by making a very careful study of verb paradigms, looking for those verbal meanings that are ambiguous with each other if we just use the word level tone marks proposed in the preceding section.

Though we have not yet had time to investigate verbal paradigms in Isu, we expect that we will need to later revise this section to include additional diacritics. From reading Kiessling's draft grammar (Kießling, forthcoming) and from past experience with other Grassfields languages, we expect that careful examination of imperatives, hortatives, subjunctives, consecutives and others may result in the need to tweak our word-level tone marking system with a few extra diacritics. For the moment, Isu speakers should use the lexical tone marking rules above and take note of any grammatical ambiguities they might notice.

## 4 Word division

Isu word division will hopefully be examined further at some later point in time. It will be especially important to develop appropriate criteria for distinguishing compound nouns from associative noun phrases. In the meantime, we mention that all the normal Bantu noun class prefixes will be written as part of the nouns, as for the classes shown below:

| Class | Noun | Gloss |
| :---: | :---: | :---: |
| $\mathbf{1}$ | wà | child |
| 2 | awa | children |
| 3 | ukwe | arm |
| 4 | ikwe | arms |
| $\mathbf{5}$ | itay | stone |
| $\mathbf{6}$ | atay | stones |
| $\mathbf{7}$ | kitu | head |
| $\mathbf{8}$ | utu | heads |
| $\mathbf{9}$ | mbam | cobra |
| $\mathbf{1 0}^{\mathbf{1}}$ | tìmbàm | cobras |
| $\mathbf{1 1}^{\mathbf{1}}$ | fikwab | knife |
| $\mathbf{1 2}^{\mathbf{1}}$ | mìnkwàb | knives |

${ }^{1}$ We have numbered the noun classes above to make it easier for new literates to learn them. The informed reader should however be aware that the noun classes numbered 10, 11 and 12 above are more usually numbered 13,19 and 6 a respectively by Bantu linguists. The reader may also notice that, while class 1 has no syllabic prefix, the low tone prefixes of classes 10 and 12 (and a "floating" low tone prefix for class 1) all have a lowering effect on the phonetic pitch of the whole word.

## 5 Elision

At this point in time, we have not been able to research the role that elision might play in the Isu language. For the moment, therefore, we propose that Isu be written as it is pronounced in careful speech (i.e. not in fast speech). Once we become aware of the places where elision is possible or is even common, we can then examine those places to see what further adjustments might or must be made to the writing system. (It is important that new Isu writers refrain from using the apostrophe to indicate elision, as it is used in English, because the apostrophe is used exclusively to write glottal stops in Cameroonian languages.)

## 6 Punctuation and capitalisation

The punctuation marks and the rules that govern the Isu language are the same as those for English. The punctuation marks and capitalisation used for Isu are therefore as follows:

1. Full stop (.)
2. Question mark (?)
3. Exclamation mark (!)
4. Comma (,)
5. Colon (:)
6. Semicolon (;)
7. Quotation marks ("... ") and ('... ')
8. Capitalisation
9. Parentheses (brackets)

### 6.1 Full stop

The full stop (.) in Isu marks the end of a declarative sentence.
Mì ku mbôy.
I have cow
I have a cow.

### 6.2 Question mark

The question mark (?) marks the end of an interrogative sentence.
Ghà kì zịyi mìyi?
you F1 do what?
What will you do?

### 6.3 Exclamation mark

The exclamation mark (!) is written at the end of a command, or it is placed following exclamatory words or phrases. It functions to express interjections, surprises, excitement, and forceful comments as well as simple commands; as below.

Mày kwo'!
finish go.up
Finish it up!
Hay! Mi kì nì way wè.
no.way I F1 marry NEG him
No way! I will never marry that man.

### 6.4 Comma

Commas (,) are used to separate clauses or parallel words within a clause, as below:
Ghu zèe way ndàw kìywà'â, ghu zèe aní bekivvìn.
they go.IMPF NOT house book they go.IMPF to market
They are not going to school, they are going to the market.

Kum khu fìbud, bvì nì bì iti a ndàw.
Kum have small.cat dog and goats three at house
Kum has a small cat, a dog and three goats in the house.

### 6.5 Colon

Colons (:) are used to introduce a list of similar items, as below:
Ù lii mìi nì zwe kì ushia ubè: mìntsı̀mbì nì ffee ki.
he want.IMPF me COMP buy DUR things two groundnuts and plantain 7.OF
He is wanting me to buy two things: groundnuts and plantain.

### 6.6 Semicolon

Semicolons (;) are used to separate longer clauses within a long sentence, as below:
Iyīi kì ŋwùgì kitsa'; iŋìmì bwami utsa'.
women P2 mix:IMPF mud men mould:IMPF blocks
The women were mixing the mud; the men were making the blocks.

### 6.7 Quotation marks

Quotation marks ("... ") occur at the beginning and end of direct speech, as below:
Ù bỉbì a wi we, "Wûo zèe yị?"
he ask.IMPF to wife his you go:IMPF where?
He was asking his wife, "Where are you going?"
Note: In English and Isu, other punctuation marks always precede closing quotation marks when they occur next to each other.

### 6.8 Capitalisation

Capital letters are used at the beginning of sentences, for proper nouns, and after a colon only if what follows is an entire sentence.

First word in a sentence:
Ù kì nì wi azwa.
he P2 take wife yesterday
He got married yesterday.
Proper nouns:
Mfwàa Usuu kì toỷ nà nghìd tị Usuu: Kum, Kibêe, Ghî nì Tsîi.
chief Isu P2 call OM notables 7:AM Isu Kum Kebeh Gih and Chiy
The Isu chief invited the Isu notables Kum, Kebeh, Gih and Chiy.
After a colon IF what follows the colon is a complete sentence:
Mê kamí sigg: Ù nam dì ndàw.
Meh NEG go.farm he still be.in house
Meh did not go to the farm: He is still in the house.

### 6.9 Parentheses

Parentheses are usually used to fill in background information in the middle of a sentence.
Ù kì ffè nyâm tịwe (tìmbvì ibe nì bvì) ŋwò dyàyi.
he P2 sell animals his hens two and dog leave immediately
He sold his animals (two hens and a dog) and left immediately.

## 7 Need for further testing of the orthography

Any new orthography needs people to use it for a time before potential problems reveal themselves. It is our hope that this proposal will be a significant first step in allowing Isu people to start reading and writing their language. It is our hope and expectation that this orthography guide will be revised at various times over the coming years as we are able to study grammatical tone, word boundaries and elision in addition to any additional problem areas that crop up.

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