ICONIC PHONICS

**a demonstration and report on
an innovative literacy teaching method**

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In 2011 ASPBAE/PEAN published a literacy survey of the Gulf Province (amongst others), and concluded:

- "Attending school was no guarantee of achieving literacy."
- "The education system produces mainly semi-literates."
- There is a need for
  "creative new programs"

In 2013 the Department of Education put out a circular elaborating certain policies. The headings for some of those policies are:

- "5.1 ENGLISH AS LANGUAGE OF INSTRUCTION"
- "5.2 ENGLISH TO BE TAUGHT AS A SUBJECT"
- "5.3 TEACHING OF PHONICS"
- "6.   VERNACULAR TO BE TAUGHT AS A SUBJECT"

It should be noted that a part of the first of those policies states that "Elementary Preparatory teachers are allowed to use the local vernacular during their lessons to explain difficult concepts". This along with policy 6 are important because **phonics** literacy has to be taught using the *sounds of language that a child already knows how to speak*.

The PHONICS way to READING

6 STEPS

1. Hear WORDS <<< SOUNDS   /san/ <<< /s/ + /a/ + /n/
   (**Phonemic Awareness**)

2. Connect SOUND ↔ SYMBOL   /a/   ↔   u

3. **Blend** SOUNDS/SYMBOLS >>> WORDS   s+u+n > /s a n/ > /san/

4. Connect WORD ↔   MEANING   sun /san/ ↔

5. Blend WORDS >>> SENTENCES   the + sun + is + hot
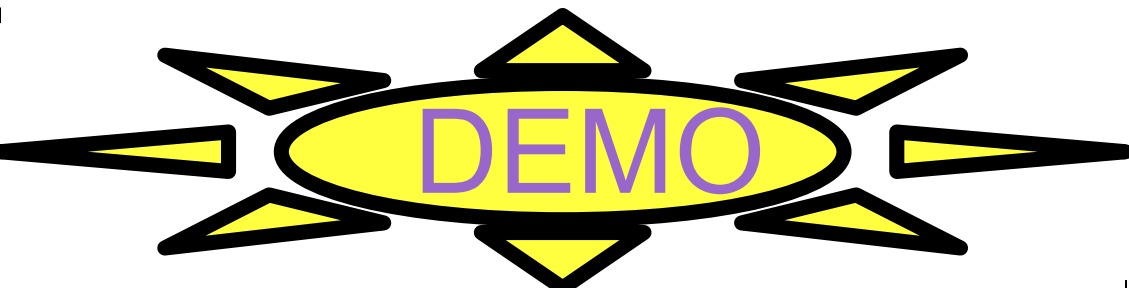   >>> The sun is hot.

6. Connect SENTENCE   ↔   MEANING   The sun is hot. ↔

Kali Woodward (2013)

ICONIC PHONICS

Why not use icons of the oral apparatus as initial literacy symbols?

- easy to remember
- teach phonemic awareness

DEMO

TOK PISIN

△ ̥ ◯ ⌃ ⌢   ⊖ − ⌃̆ − ⌃̈

an
icono-phonological
or
icono-featural
writing system

Ol Maus Piksa Bilong Tok Pisin

The Features Of

$$[\alpha]$$

streamlined airflow

Front   Central   Back

A bundle of features
Vocoid
Central tongue
Open mouth
Unrounded lips

Close

Mid

Open

O

Rounded lips

Unrounded (unmarked)
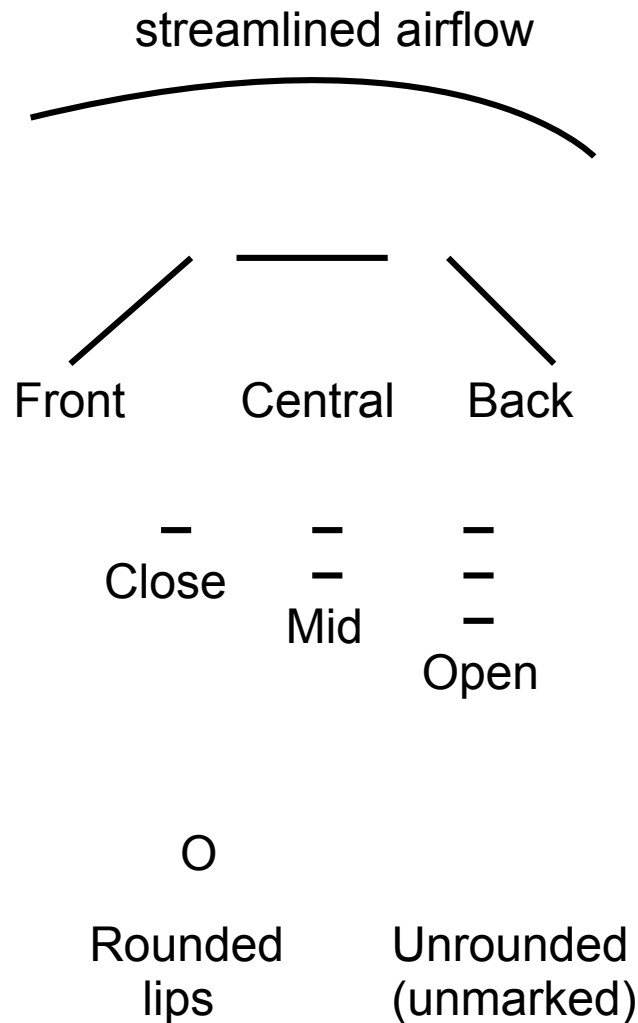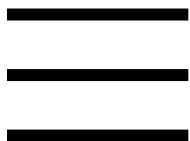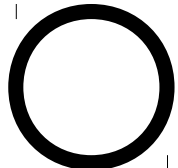
The Features Of

[s]

closed shape
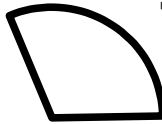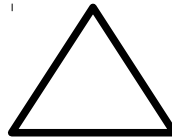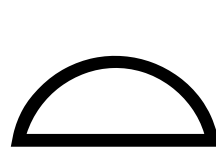
Lip   Tip/Blade   Dorsum   Back   Glottis
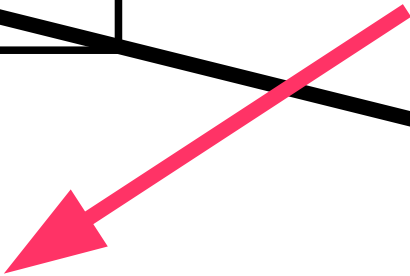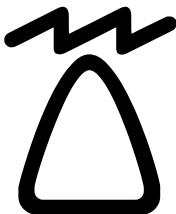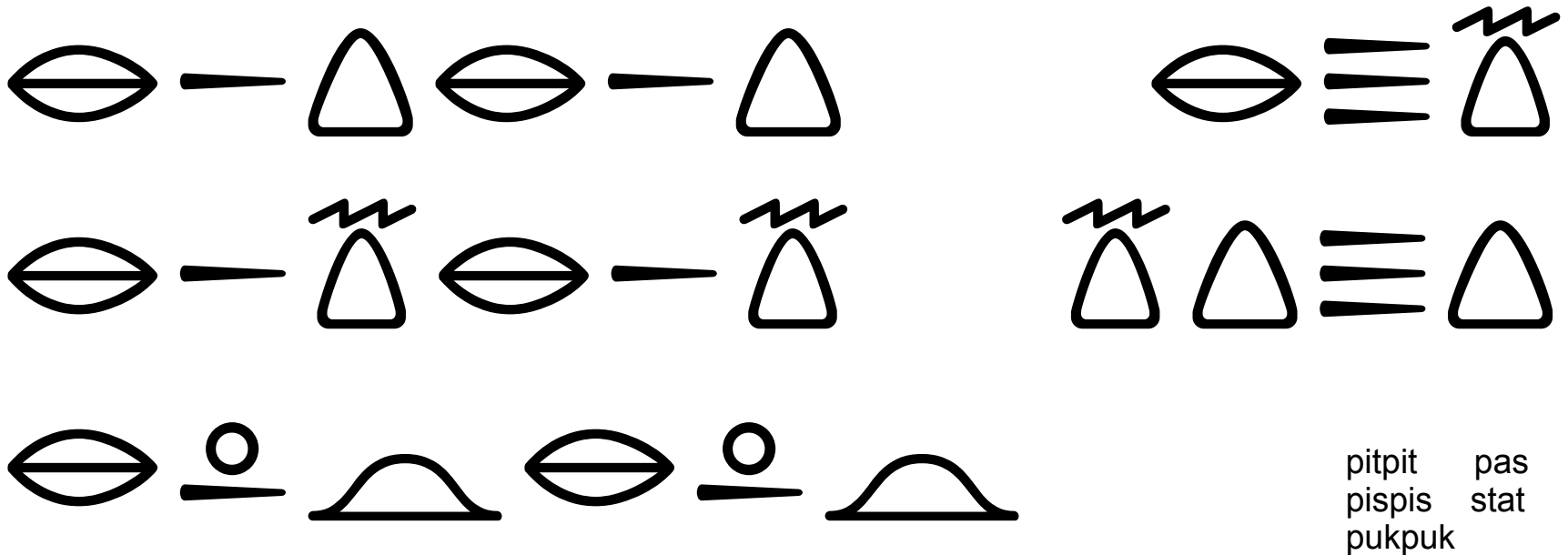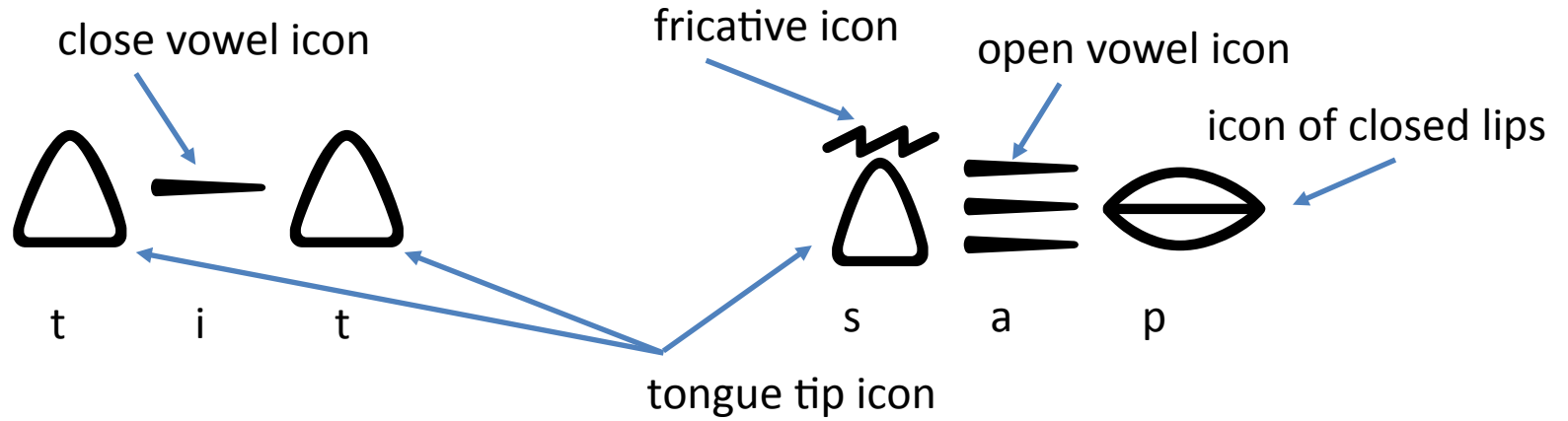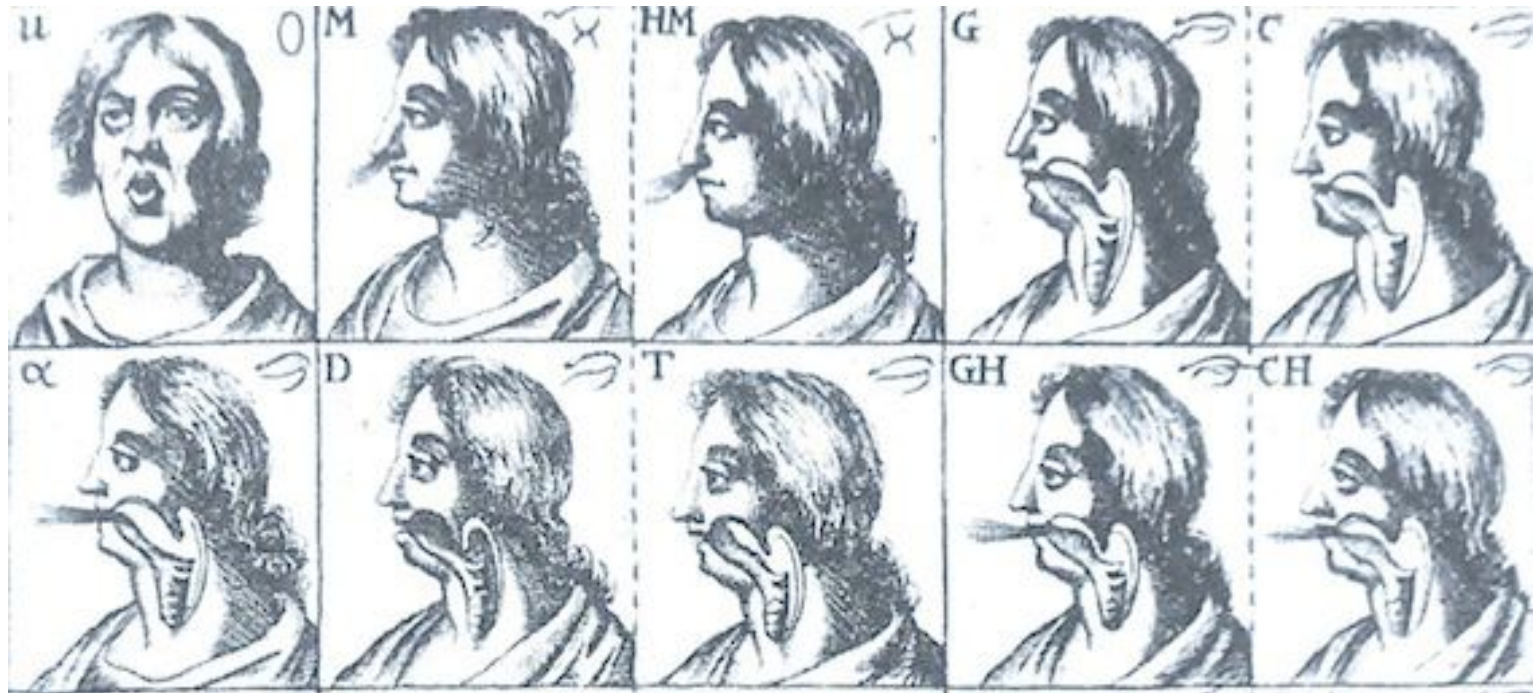
A bundle of features
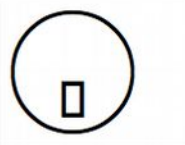Consonant
Tongue blade
Friction
Groove

Groove   Lateral

Examples from Tok Pisin:

close vowel icon

fricative icon

open vowel icon

icon of closed lips

t   i   t   s   a   p

tongue tip icon

pitpit   pas
pispis   stat
pukpuk
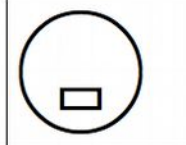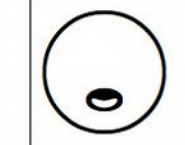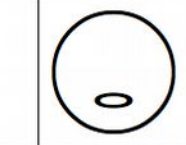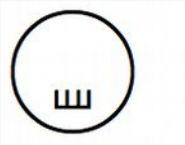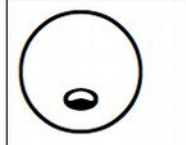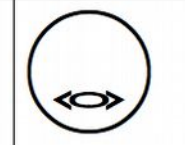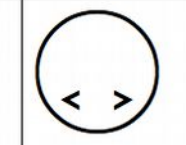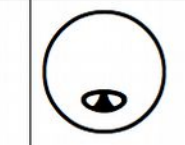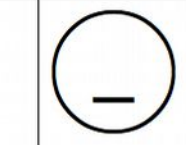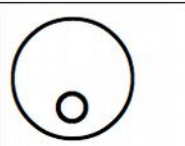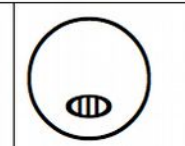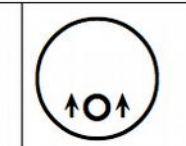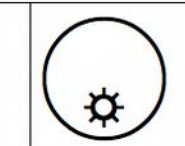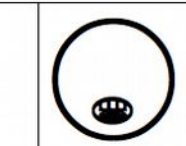
ICONO-FEATURAL ALPHABETS (1)

John Wilkins' Physiological Alphabet (1668)

see Coulmas, p. 29

ICONO-FEATURAL ALPHABETS (2)

Stefan Woehrmann's Mundbilder for German deaf children (current)

a, aa, ah, ha	ä, hä,	b, bb, p, pp	ch,	d, t, n, nn,dt, nt,tt,	e,ee, he, eh,
f, ff, v, w, ph	g, gg, rr, k, ck, r, rr, rk, kr, ch, chr, c	i, ie, hi, ih,	j	l, ll	m, mm
o, oo, ho, oh, ö,	o	s,ss,ß,z,c	sch, g,	u, hu, uh, ü, hü, üh,	th (engl)

see Woehrmann

ICONO-FEATURAL ALPHABETS (3)

A.M.Bell's Visible Speech
(1867)

Wikipedia at Visible Speech
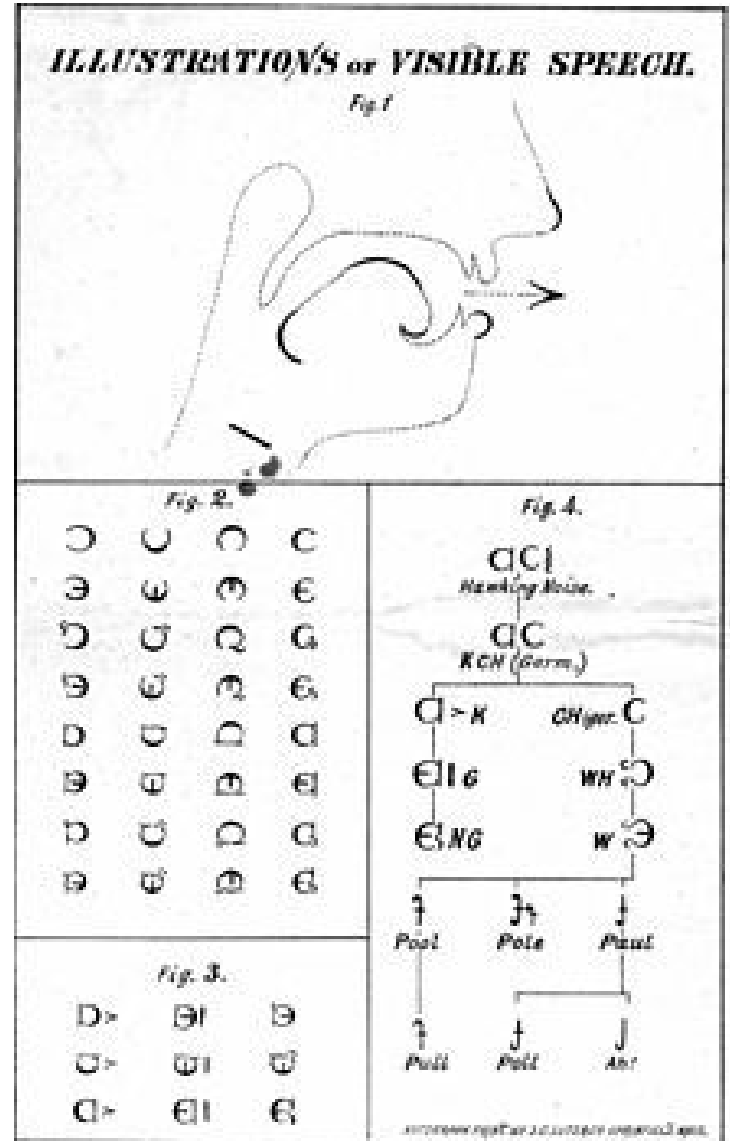
ICONO-FEATURAL ALPHABETS (4)

King Sejong's Hangul for Korean (1446)
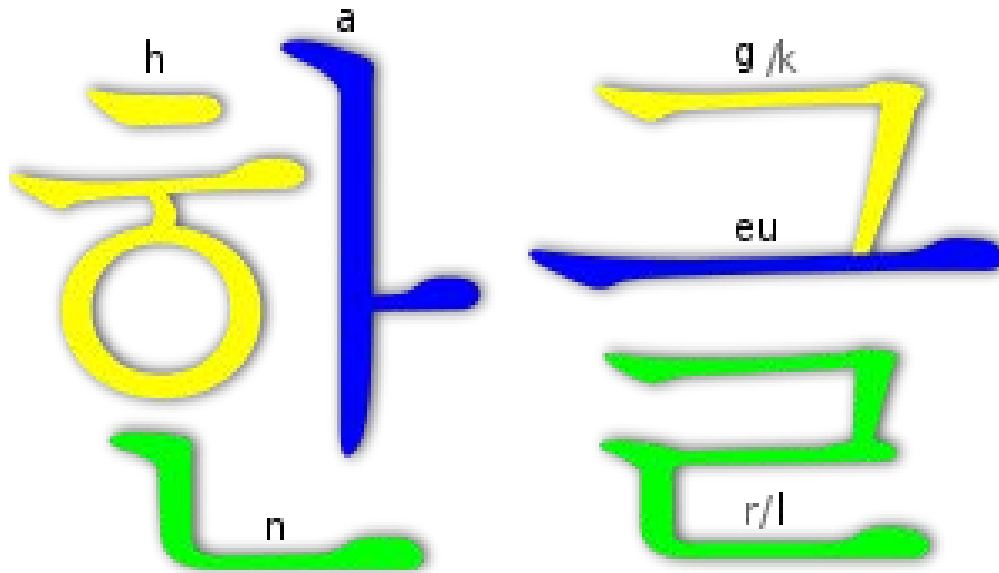
Symbol	Meaning
⌐	tongue back
⌐	tongue tip
□	lips
O	glottis

ICONO-FEATURAL ALPHABETS (5)

Uniskript (current - University of the Nations)

Dr Kim Cho expanded Hangul for possible international use - she showed her idea to YWAM (Youth with a Mission) leaders in 2002.

A YWAM team, including Brazilian linguists Marcia and Edson Suzuki, reworked the idea, distancing it from Korean, developing a more *universally applicable icono-featural system*.
Then they tried it out with 8 languages.

In 2013 the YWAM shared their idea with SIL.
We took 4 PNG people to the University of the Nations in Hawai'i
 to learn about it.

We were impressed by its
  ease of learning and linguistic & cultural adaptability,
    and have been trying it out with much interest ...

Examples of Application of UNISKRIPT principles
  to Specific Language/Culture Groups using their own symbol forms

Tok Pisin/Motu
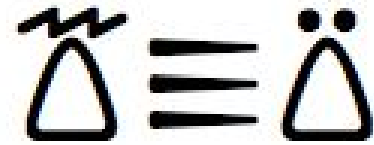
Urama
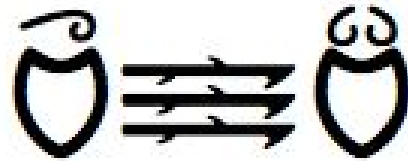
Koriki

Kope

English

M
a
n
d
a
r
i
n

50. 请跟我说 p，这是由双唇发出的送气音：

36. 请跟我说 ao: a→u

[p]   [pʰ]   [m]   [f]
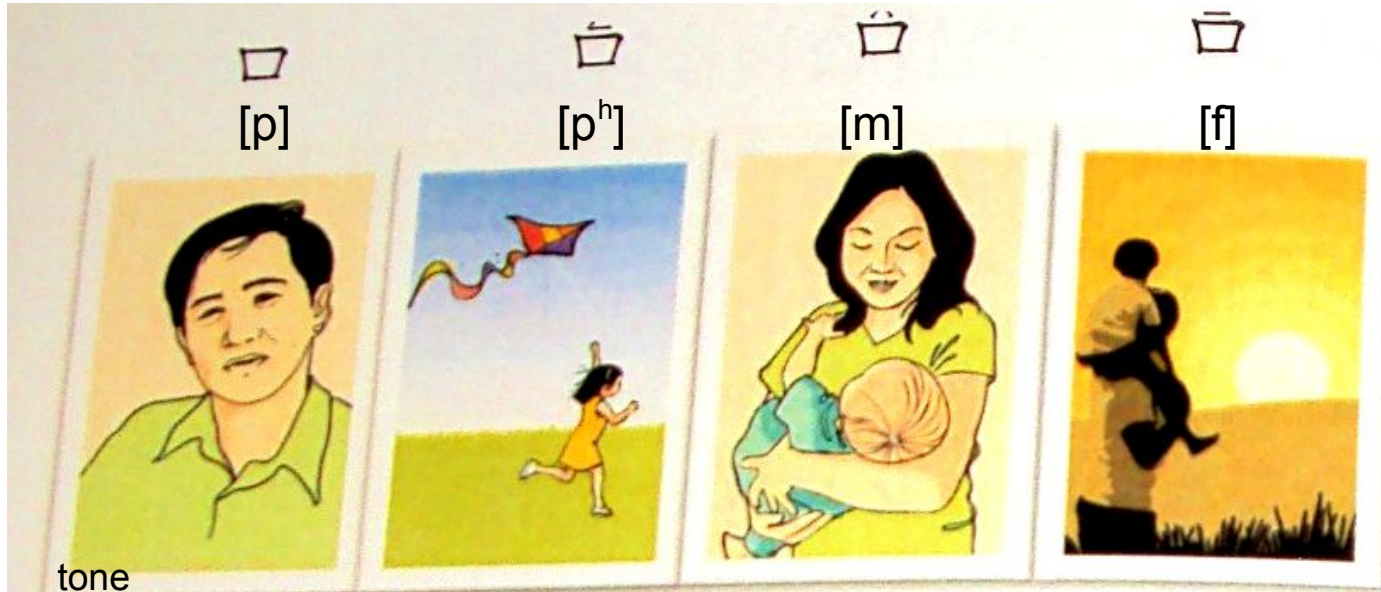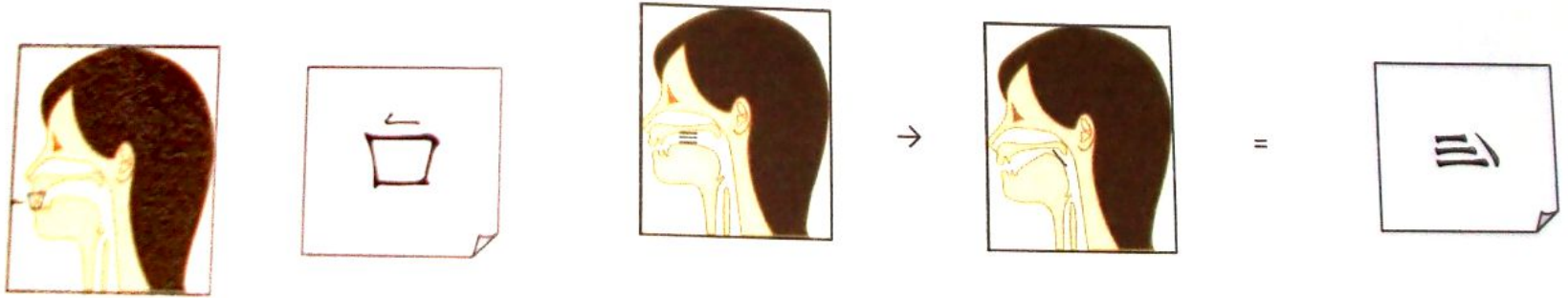
tone
icons

consonant icons
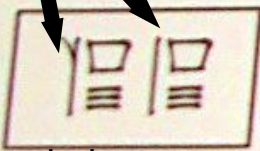
closing
nasal icon
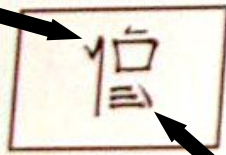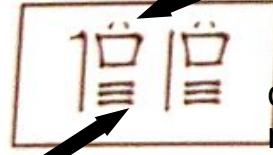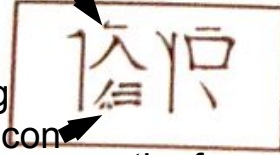
baba   pao   mama   tianfu

vowel icons

P. Jiang (2013)

THE UNISKRIPT to ENGLISH LITERACY PATHWAY

3 Stages

From Uniskript vernacular literacy
to Roman letter vernacular literacy
to English literacy (with Uniskript pronunciation help)
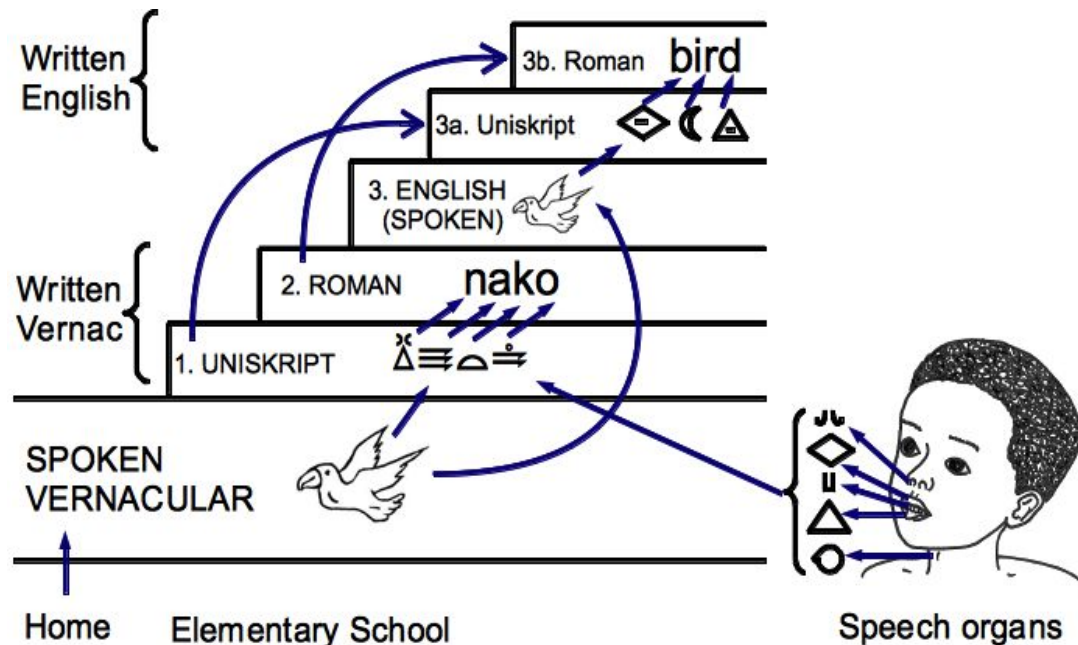
Who is using Uniskript in PNG?
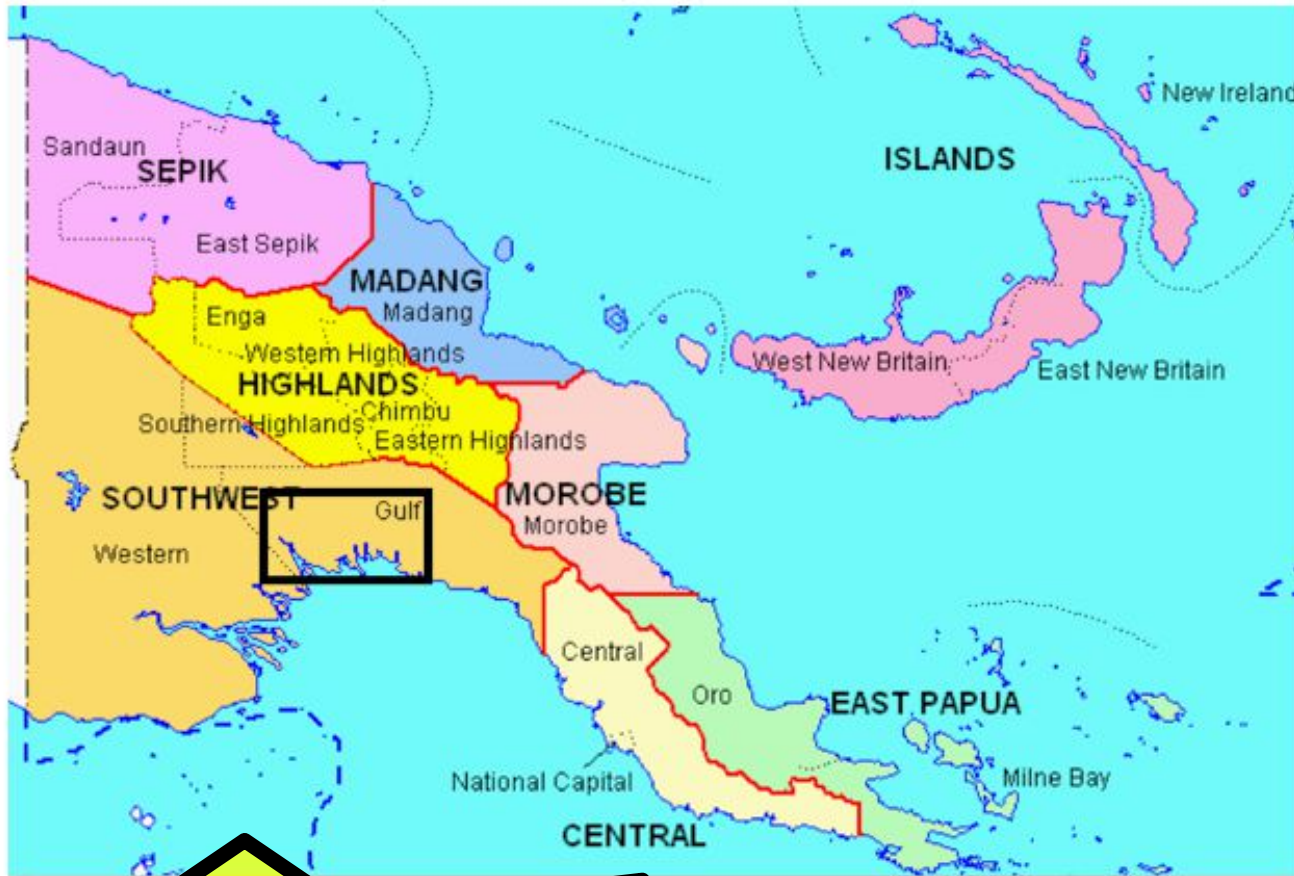
Successfully taught ...

2013 - one class, Koriki language
           (Kapuna: 15 children)
2013/14 - one school, Koriki language
           (Ara'ava: 127 children)
2014 - 4 schools, Koriki and Kope languages
            (Kapuna, Kai'alavi, Kairimai, Ubu'o:
             130 children)
2015 - 5 schools, Koriki and Kope languages
           (Kapuna, Kai'alavi, Kairimai, Ubu'o,
            Goilavi: 150 children)

Unsuccessful …

2014 - Akoma Kindergarten, Koriki language
              * teacher was untrained, and teaching
                 English literacy simultaneously
         - Kivaumai EP, Urama language
            * teacher was teaching English literacy
                 simultaneously
         - Ara'ava Kindergarten, Koriki language
            * Elementary TIC opposed it, stopped it
         - Goilavi Literacy School, Kope language
            * teachers completely untrained

EP = Elementary Preparatory TIC = Teacher in charge

How good is it?

Is the extra stage worthwhile?

At Ubu'o Primary (Feb 2015)

We spent 5 hours training teachers to use Uniskript in class
        with all 73 children (Gd 3 - 8).
1 hour - phonological awareness + vowel icons
1 hour - revision + vowels and vowel blending + consonant icons
1 hour - revision + blending "‿" (p) with a vowel (pi, po, pu, ...)
  ... but many knew ‿ (p), and knew ⌒ (i), but could not blend ‿⌒ (pi)
(Most had been taught only in English, but could not read it, or any language.)

So we split the class and spent ...
1 hour with the 60 students who could not read (Grades 3, 5, 6, 7, 8)

  - revised + taught them to BLEND ⌣ (p) + any vowel

plus
1 hour with the 13 literate students (Grades 3, 5, 6, 7, 8)
  - taught the WHOLE of Kope Uniskript.
  (At the end these 13 could write any 2-syllable word I asked them to.)

Show me the NUMBERS!

The situation with
1079 school students
EP-G6 ...

MT ■ read Mother Tongue

Eng ■ read English

X □ cannot read well

→

Mother Tongue literacy first
gives best results so far

English-only
n = 583
MT   3%
Eng 10%
X   88%
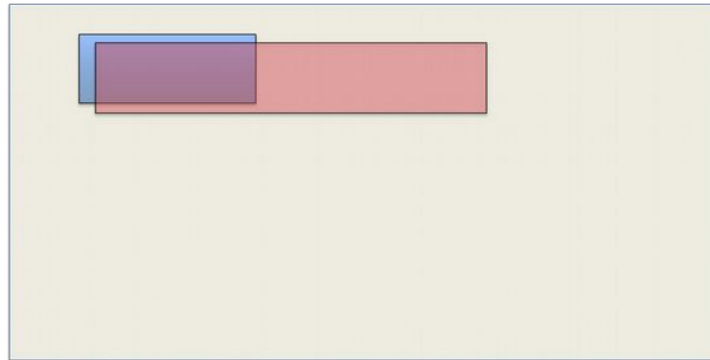
Both-at-once
n = 169
MT   5%
Eng 11%
X   88%

MT-first
n = 327
MT 34%
Eng 37%
X   53%

The situation with
  560 children
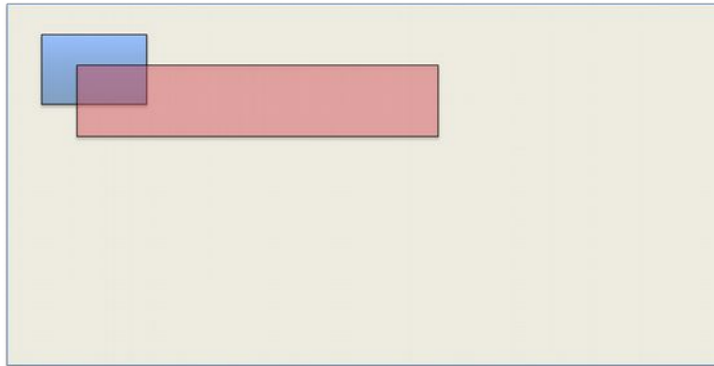   in typical *ELEMENTARY* schools

MT ▆ read Mother Tongue

Eng ▆ read English

X ▆ cannot read well
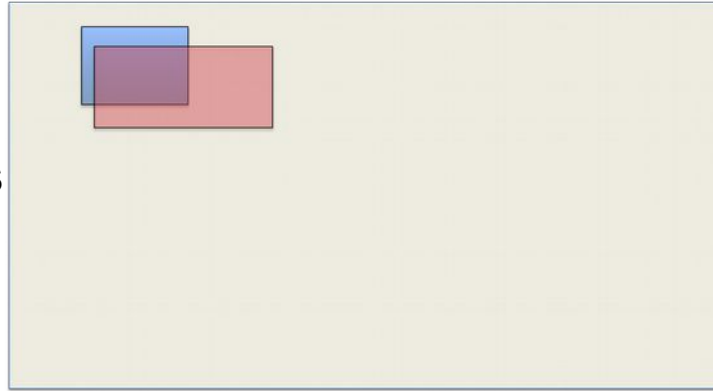
English-only
n = 368
MT   3%
Eng   5%
X   94%
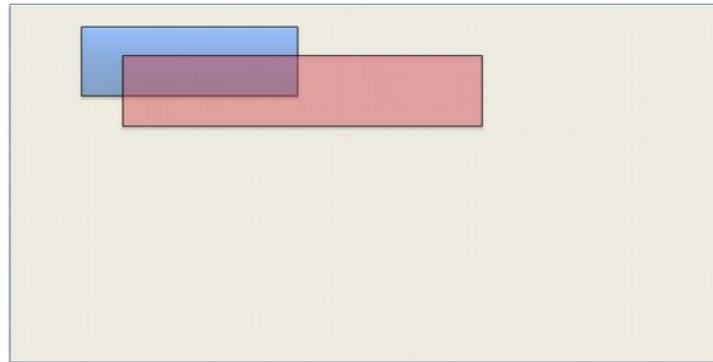
Both-at-once
n = 143
MT   6%
Eng 10%
X   87%

MT-first
n = 49
MT 31%
Eng 18%
X   61%

→

Mother Tongue literacy first
gives best results.
Let's look more at this one ...

Literacy success in Mother-tongue first elementary level schools

NO Uniskript NOR trainer input
(from previous slide)

MT-first
n = 49
MT 31%
Eng 18%
X   61%

WITH Uniskript AND trainer input

MT-first+U
n = 76
MT 74%
Eng 74%
X   14%

MT   read Mother Tongue

read English

X   cannot read well

most of class achieving vernacular literacy
and successful bridging to English literacy

Comparing classes of 2014

Ubu'o Literacy School Year 1 & Ubu'o Elementary School Year 3
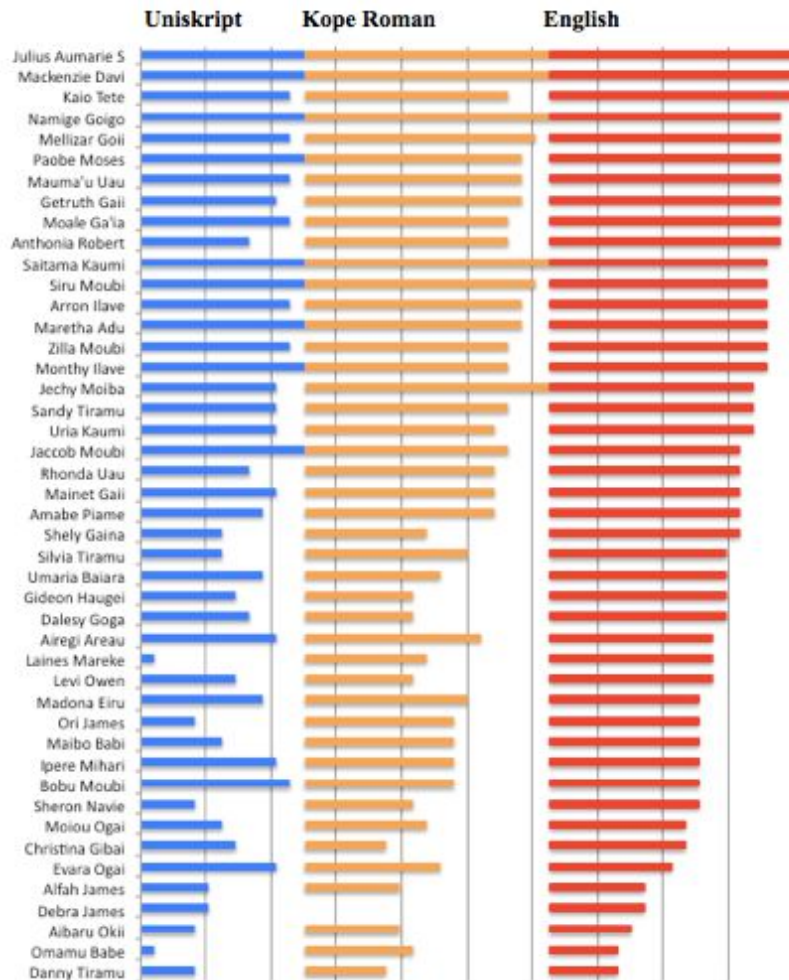
Shorter lines because tested only letters & word reading, not fluency

Started with Uniskript literacy in Mother Tongue before English 1 year ago
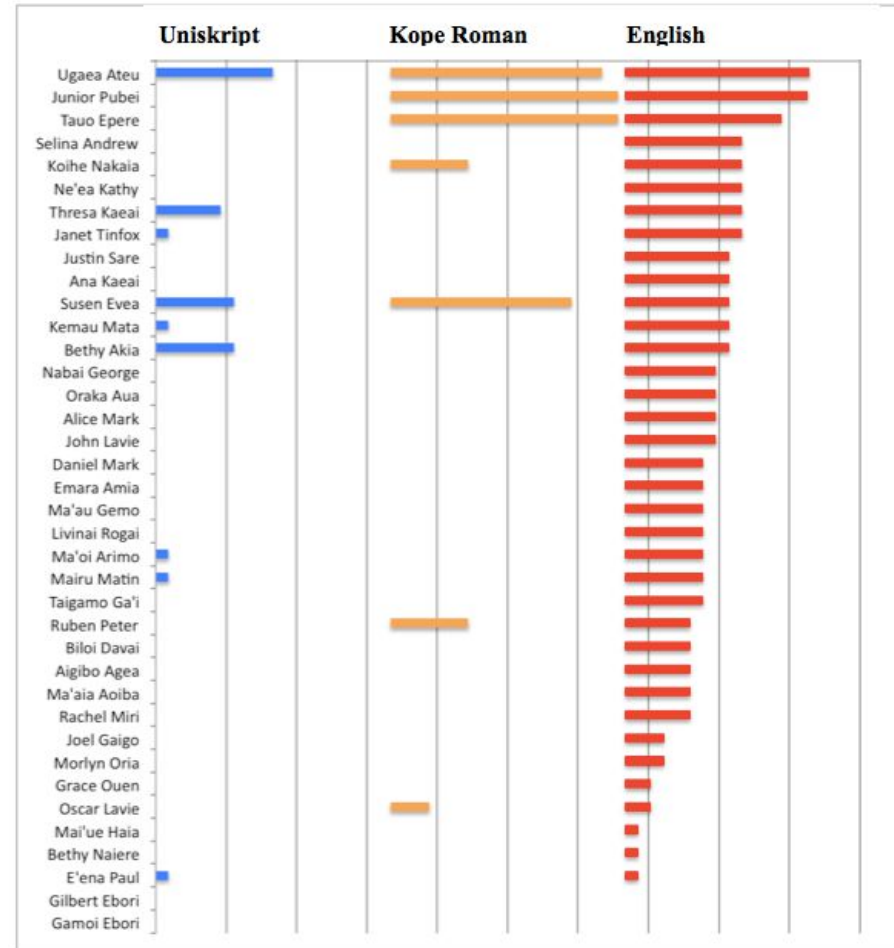
Started with English 3 years ago!

What is making the difference?

Success comes with …
- <u>training</u> + <u>follow-up</u>
  to teach in ways that children will learn

- <u>teaching ONLY one system of initial literacy</u>
  e.g. home language Uniskript, or home language in Roman letters
  until the children can read. Then bridge to English or whatever.

- <u>keeping school open</u>
  in spite of rain, pay problems, building needing repair, etc

How well does it compare to the normal literacy pathway?

Although in our area of the country teachers teaching Uniskript are often getting good results, and elementary teachers teaching English are often getting poor results, it is hard to compare fairly when teacher training is of such variable quality, and teachers are largely unsupervised in the field, and language policies change without upgrading skills to cope with the change.

However comparative studies are being planned, with some teachers trained in Roman letter phonics, and others in Uniskript; equal training, equal assistance, equal supervision.

Please wait for results ...

References

ASPBAE Australia Ltd. and PNG Education Advocacy Network (PEAN). 2011.
   PNG education experience survey and literacy assessment: A report on 5 provinces—
   New Ireland, NCD, Chimbu, Sandaun & Gulf Provinces. ASPBAE Australia Ltd.
   www.ausaid.gov.au/Publications/Pages/aspbae-png-education-experience-surveyliteracy-
   assessment.aspx accessed 4 December 2012.
Coulmas, Florian. 2003. Writing systems: an introduction to their linguistic analysis.
   Cambridge: Cambridge University Press.
Jiang, P. 2013. Draft Mandarin Uniskript primer. Unpublished manuscript.
Petterson, Robert. 2013. The vernacular factor in literacy in west Gulf Province
   schools of PNG. SIL Electronic Working Papers 2013-001.
Suzuki, Márcia. 2015. Uniskript course notes. Kona, Hawai'i: University of the Nations.
Wikipedia. 2014. Visible Speech.
   http://en.wikipedia.org/wiki/Visible_Speech#mediaviewer/File:VisibleSpeech-nature%26use.jpg
   accessed 27-Sep-2014
Wikipedia. 2014. Hangul. http://en.wikipedia.org.
Woehrman, Stefan. 2007. Sprechen lernen mit der Mundbildschrift
   http://www.gebaerdenschrift.de/read/Mundbilder/mundbild_lesen_lernen001.htm
   http://listserv.linguistlist.org/pipermail/sw-l/2007-May/014747.html
   accessed 27-Sep-2014
Woodward, Kali. 2015. Youthlit course notes. American Youth Literacy Foundation.
   http://www.youthlit.org accessed Mar-2014.