Most rational writing system in the world: Universal Literacy Alphabet Against Poverty, Spread of AIDS (HIV), of Malaria, and of Tuberculosis, and Population Crisis

For more contents please read, http://ccmg.cc.toin.ac.jp/tech/bmed/ft28/univalphen.pdf

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"Hangul" and Japanese writing system "Kana"

Korean Alphabet was created by scholar for literacy of common people in 1443 by the order of Great King Sejong.

It was developed by the knowledge of phonetics at that time and is recognized as the most rational writing system in the world ⁽¹⁾. Japanese writing system "Kana", on the other hand, is a complicated writing system and, to rationalize to some extent, has developed "Dakuten" which is added to voiceless consonant letters to create voiced consonant letters ⁽²⁾. The "Dakuten" made "Kana" simpler. Universal Literacy Alphabet was developed the idea of Korean Alphabet to create vowel letters by joining basic vowel letters.

Universal Literacy Alphabet, in one word, is created to simplify learning letters by making the letter forms corresponding to pronunciation method by few simple rules. It simplifies the letter forms of International Phonetic Alphabet (IPA)⁽³⁾, which is notorious for its complicated letter forms, although IPA is claimed to approximately scribe every language world wide. Universal Literacy Alphabet, together with Computer Numerals (previously named as Abacus Numerals), and New Abacus Numerals, shortens the time required to learn basic education. They, therefore, make people free from ignorance and poverty (because of lack of basic education), and resultantly prevent people from AIDS (HIV) and tuberculosis ⁽⁴⁻⁵⁾. It will also be useful to

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prevent population crisis.

Universal Literacy Alphabet will be used as new rationalized International Phonetic Alphabet to learn pronunciation of foreign languages and show foreign people the names of stations (Japanese, Latin, Chinese, and Korean scripts are used in Japan, to show people important messages as names of the stations). It can be used to protect nearly vanishing languages by offering it writing system. Development of sciences is forcing scientists to learn increased amount of knowledge. So it will become increasingly important to learn basic education (literacy and numeracy) as efficiently as possible so they can initiate to learn leading edge sciences as soon as possible (especially in mathematics, computer sciences and theoretical physics).

Key Words: Literacy, International Phonetic Alphabet, Linguistics, Basic Education.

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[Vowels]

Vowels are classified into rounded (pronounced with rounded lip) and unrounded (pronounced with unrounded lip). These vowels are classified by the openness of the lip and the highest position of tongue during pronunciation (Table 1). Creation method of vowels of Korean Alphabet, medium vowel letters are created by joining basic vowel letters are employed in Universal Literacy Alphabet (Table 2). Unrounded vowels are made by straight lines, while a part of horizontal line of unrounded vowels are changed to a circle in the corresponding rounded vowels.

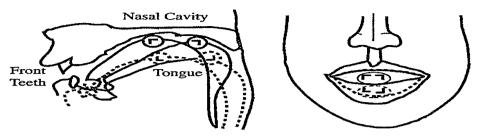


Figure 1 Basic vowels (unrounded vowels) and the method of their pronunciation.

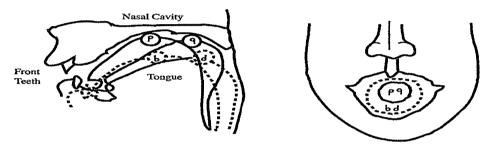


Figure 2 Rounded vowels corresponding to basic vowels and the method of their pronunciation

Front(highest ton	gue po	sition)Back		Front(highe	est tongue posi	tion)Back
r _F	т	_	7	Close	Рр	ণ	٩
f i	Ŧ	₹	4	Close-mid	r b	d-	þ
ا ا	† ±		=	Open-mid	<u> </u>	<u>4</u>	و
հ L	.		7	Open		Ь	٩
☐ Unro	unded			Lip	0	Rounded	

Table 1 Vowels of Universal Literacy Alphabet (ULA)

Front(highest to	ngue p	ositic	n)Back		Front	(highest	tongue posit	ion)Back
i	i		w	Close	у	T 7	tt	u
e [‡] E æ _a	9 3 8	V	ν γ	Close-mid Open-mid Open	!	ø Oe Œ	8	0 0 0
□ Un	rounde	d		Lip			Rounded	

Table 2 Vowels of International Phonetic Alphabet

Basic vowels of ULA are four unrounded vowels at each corner of Table 1, resembling the form of each corner. Those are, (i of IPA), (ui in IPA), (o of 'pod' in Californian English, in IPA), and (a of French 'sa', and (in IPA). All unrounded vowels are expressed by joining adjacent basic vowels. For example, is the combination of and and its stands for a of 'bayed', and e in IPA), is the combination of and (of Californian 'bad', and in IPA), is also the combination of and (of Californian 'bad', and in IPA), is the combination of and (of Californian 'above', and of in IPA). Vowels pronounced with air out of nostril as well are expressed as, where circle (of Shows the nostril (IPA)).

Rounded vowels are expressed by changing a part of horizontal line of unrounded vowels to a circle in the corresponding unrounded vowels.

For example, rounded vowel of Universal Literacy Alphabet (ULA) **9** (ou in French 'sous', and u in IPA) is corresponding to unrounded vowel **1** (**UI** in IPA) previously mentioned. ULA **d** is o of French 'sot', and o in IPA, and is corresponding to unrounded vowel **1** (**Y** in IPA). ULA **d** is u of Californian 'bud' and **2** in IPA, and is corresponding to unrounded vowel **1** (**A** in IPA). ULA **P** is a of Hungarian 'hat' and is **D** in IPA, and is corresponding to unrounded vowel **1** (**D** in IPA).

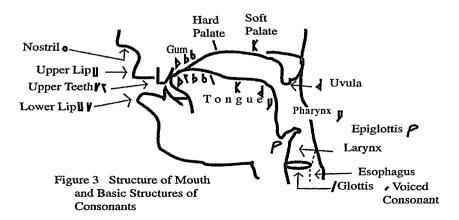
ULA **P** is ü of German 'h ü ten' and is y in IPA, and is corresponding to unrounded vowel **F** (i in IPA). ULA **P** is ü of German 'H ü ten' and Y in IPA, and is corresponding to unrounded vowel **F** (I in IPA).

[Consonants]

Consonants are pronounced by making distance of upper and lower organs narrow. Upper and lower organs used for pronunciation are shown in Figure 3 and Figure 4. Korean Alphabet uses symbolically depicted structure of organs for basic structure of consonants.

Basic structure of consonants of ULA are shown in Figure 3 and Table 3. Additional Structures of ULA shows how these organs are used for pronunciation. On the other hand, consonants are classified into voiced and voiceless.

On pronunciation of voiced consonants the throat vibrates (vibration can be sensed by fingers



touching on throat), while on pronunciation of voiceless consonants the throat dose not vibrates. In Japanese writing system "Kana", "Dakuten" is developed to indicate voiced consonants. For example, if "Dakuten" is introduced to Latin writing system, "B", "Z", "D", "G" etc., can be expressed by adding "Dakuten: ' " to "P", "S", "T", "K", as "P', ", "S', ", "T', "k' '. So it is not necessary to remember letter forms of "B", "Z", "D", "G" etc.. Universal Literacy Alphabet (ULA) utilizes this idea and additional structure of consonants is added to a voiceless consonant letter to show a voiced consonants (which is a miniaturized basic structure of glottis i).

[Basic Structure of Consonant Letters of Universal Literacy Alphabet]

Consonant letters of Universal Literacy Alphabet (ULA) is created by joining basic structure and additional structure. Basic structures of consonants depict symbolically the cross section of major organs used for pronunciation (shown by dotted line in Figure 4. While, additional structures are determined by the method of moving upper and lower organs.

Figure 4-1 Basic structure of consonant letters tongue tongue Laviodental Bilabial: Pronounced by upper Pronounced by upper foreteeth and lower lip. and lower lips. Form of tongue is exaggerated. Dental: Alveolar: Pronounced by upper Pronounced by upper front teeth and tip of tongue. gum and tip of tongue. Form of tongue is exaggerated. Form of tongue is exaggerated. Postalveolar: Retroflex: Pronounced by hard palate and tip of Pronounced by hard palate and curved tongue. tongue. Form of tongue is exaggerated. Form of tongue is exaggerated.

[Basic Structure of Consonant Letters of Universal Literacy Alphabet(continued)]

Consonant letters of Universal Alphabet for Literacy (UAL) is created by joining basic structure and additional structure. Basic structures of consonants depict symbolically the cross section of major organs used for pronunciation (shown by dotted line in Figure 4. While, additional structures are determined by the method of moving upper and lower organs.

Figure 4-2 Basic structure of consonant let

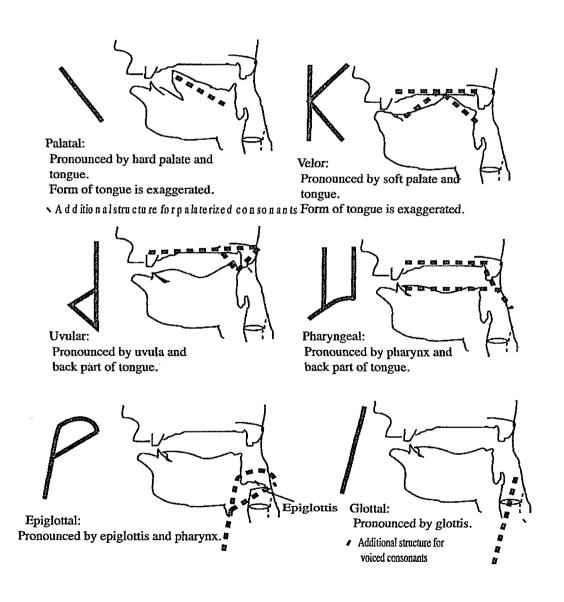


Table 3
Basic Structure of Consonants of Universal Literacy Alphabet(ULA)

Names of Consonants	Upper and lower of used for pronuncial		Basic Structure	Symbolized cross section of organ(s) for basic structure	
Bilabial	Upper and lower lip	ps	U	Upward open mouth	
Labiodental	Lower lip and upper	r theeth	V	Crosssection of Upper Frontal teeth	
Dental	Tongue and upper fo	ore teeth	7	Tongue and Upper Frontal teeth	
Alveolar	Tip of tongue and up	per gum	>	Palate and right-angled tongue	
Post alveolar	Blade of tongue and l	hard palate	Ь	Palate and half circular tongue	
Retroflex	Hard palate and curv	red tongue	Ь	Palate and circular tongue	
Palatal	Hard palate and t	ongue	١	Linear tongue	
Velar	Middle tongue and s	oft palate	K	Palate and right-angled tongue	
Uvular	Back tongue and uv	vula	4	Palate and uvula(triangle)	
Pharyngeal	Back tongue and pl	harynx	y	Mouth and its deep part	
Epiglottal	Pharynx and epiglor	ttis	P	Pharynx and epiglottis(triangle)	
Glottal	Glottis		1	Trachea	
Labial-palaral	[h = [] +\	Postalveo	lo-velar 🕻	>=b+K	
Alveolo-palat	a ⅓ = \ +▶				
Labial-velar	IK = 11 +K				

[Additional Structure of Universal Literacy Alphabet]

Consonant letters of Universal Alphabet for Literacy (UAL) is created by joining basic structure and additional structure. Basic structures of consonants depict symbolically the cross section of major organs used for pronunciation (shown by dotted line in Figure 4.While, additional structures are determined by the method of moving upper and lower organs. Pronounce by the gas flow from the lung. The height of horizontal line is determined by the degree of contact of the upper and lower organs (This method rationalized the letter forms and later lead to invention of Abacus Numerals for Numeracy [later renamed as "Computer Numerals for Numeracy"]).

Figure 4-3 Additional Structure of Consonants

Organs are near:Basic Structu	ire 🖟	Throat does not vibrate: Voiceless Throat vibrates: Voiced
Organs touch and then separate	wide:Ad	ld middle line: Voiceless ↔ Voiced ↔
Organs distance is narrow(A	dd down	most line): Throat does not vibrate: Voiceless Throat vibrates: Voiced
Organs touch, separate and re-	main in na	arrow position(Add middle and lowermost line): 🗓 👢 📜
Organs touch continuously	at the ce	enter and both sides are near(Add upper most line): ;;
		nter and both sides are narrow and down most line):
Organs touch continuously	at the co	enter and both sides touch in a moment and then appart wide (Add upper most line and middle line):
Organs touch continuously	at the ce	enter and both sides touch in a moment and then appart wide (Add upper most line and middle line):
Organs touch continuously	at the m	niddle and both sides touch in a moment and then remain near upper most line, middle line and down most line):
Tap or Flap(like Japa	mese r)	من بن بن
Trill(like Russian p)		
Gas flows from nostril: Palaterized:		where schematically show nostril
Pronounced by gas flow	not from	n the lung:
	g#	Where + denotes that air comes out.
Clicks:	;; >	
Lateral clicks:	;; >	Organs touch continuously at the center and click sound is created by the side of organs.
Implosive:	11;	Where - denotes that air comes in.
No gas flow:		
Some kind of double consonants		No gas flows, where • denotes flow of gas to be zero.

Table 5-1 Comparison of Consonants of IPA and Universal Literacy Alphabet

	Consonants(part 1)				Bila	bial	Labio- dental	Dental	Alve	olar	Post- Alveolar	Retroflex
	Basic Structure of Consonant				J	y	7		>	Ь	ь	
	Organs are near	::	Voiceless Voiced	ii'		ט'	٧^	۲,	1	٧	b′	4 b'
as	Organ distance is narrow	Ē.	Voiceless Voiced	11/	Φß	Π, Π	K. K	ζ.	s z	₽ ′	3 F.	2 b
rom lun	Organs touch and then separate wide	, "	Voiceless Voiced	ë. ₽.	P b	A,	υ ⊬′ *	* *^	t d	Þ,	p p	р. А. А
gas flow f	Organs touch, sep and remain in narr position	row <u>æ</u>	Voiceless Voiced	庄/		•	Ł Ł	<u>ኝ</u>	ts dz		t∫ b 33 b′	ts k dx k
ition by	Organs touch contin at the center and bo sides are near	th :	Voiceless Voiced	E .		L,	f 7 V 7′	⊖ ₹ 5 ₹′	1	D	₽ ₽	Б Б
Pronunciation by gas flow from lung	Organs touch conting at the center and bound sides are narrow		Voiceless Voiced	FĄFI		I I	Z Z	Z, Z	₽ F	∑	<u> </u>	g F
	Organs touch continuate the center, both se touch in a moment and then apart wide	ides	Voiceless Voiced	H: À:		₩ ₩	₹ *	₹ *		₽	₽ ₽	6 6⁻
	Organs touch continuously at the middle and both si touch in a moment then remain near	ides 🚐	Voiceless Voiced	FRĮFA		Ħ´	Ę	<u>ਝ</u>		€	E E	ř ř
	Tap or Flap	<u>ل</u> ائِم ۱۱	Voiced =	4.0					r	۲,	₽,	てみ
	Trill(like Russian p) 💉	Voiced	7°,	В	4			r	2	R	£,
	Gas flows from no	stril ji c	Voiceless Voiced	110			II] No. No	ho. ho	ದೆಂ ಭ	Δ° Δ°	क्रक	ಗ್ರಭ ನ್ಯ
lung	Ejective	Ē*	Voiceless	ñ*	P'	₽+	k +	++	ť	₽ †	b⁴	ፒ [°] ቴ ⁺
l gg	Clicks	.ī;≯	Voiceless		0	[]>	٧>	<۲ ا	!	þ >	P>	6>
not f	Lateral clicks	;; >	Voiceless	:귀 ♥		[]>	₽>	٤,]]	Շ>	5 >	£>
gas flow not from lung	Implosive:	177	Voiceless Voiced	:: 	<u></u>	U- U-	V-	۲- ۲-	f d	Δ Δ	ь ⁻	ا م
no gas flow	Some kind of double consonant	s ö				110		·		٥	þ °	bo

Table 5-2 Comparison of Consonants of IPA and Universal Literacy Alphabet(2)

	Det(2)			Labial-	Alveolo		Labial-	
	Consonants(part 2)	Palatal		-palatal	Velar	velar	with K	
<u> </u>	Basic Structure of Consor	11	,	IA	M	K	IK	\$
	Organs are near :	Voiceless !! Voiced ;;*	jΥ	<u>ч "У</u>		щK,	w IK	
70	Organ distance 🗓 is narrow	Voiceless U	ž Ž	N N	2 JZ	х K x K	w IK.	ťφ
uni mo	Organs touch and then separate wide	Voiceless :	4 £	FK FY		k K 9 K	邻张	
as flow fi	Organs touch, separate and remain in narrow position	Voiceless 🗓 Voiced 🗓	其 5 7 7	R F		(<u>%</u> (%	吊乐	
Pronunciation by gas flow from lung	Organs touch continuously at the center and both sides are near	Voiceless !!	አ ۲ ′	瓜		∟ K´	IK'	
Pronunci	Organs touch continuously at the center and both a sides are narrow	Voiceless T Voiced T						
	Organs touch continuously at the center, both sides touch in a moment and then apart wide	Voiceless F Voiced F						
	Organs touch continuously at the middle and both sides touch in a moment and then remain near	Voiceless # Voiced #						
	Tap or Flap	Voiced ?						
	Trill(like Russian p)	Voiced 🐔						
	Gas flows from nostril	Voiceless Voiced	J /o			ይ የ የ		
ung	Ejective ##	Voiceless #	c, /+			k'Kt		
from lung	Clicks 55	Voiceless ::>	+ />					
	Lateral clicks ">	Voiceless						
gas flow not	Implosive:	Voiceless'' Voiced	\$ /~			& K_		
no gas flow	Some kind of double consonants		١,			Ķ		

Table 5-3 Comparison of Consonants of IPA and Universal Literacy Alphabet(3)

	Consonants(part 3)			Uvular	Pharyngeal	Epiglottal	Glottal
	Basic Structure of Consonant			4	ij	P	1
	Organs are near	Voiceless Voiced	27,52	4	y ^	P'	11
b 0	Organ distance is narrow	Voiceless Voiced	Figure	R q X q	h l s l	H C F C	h L fi L
om lung	Organs touch and then separate wide	Voiceless Voiced	平平	प्र प्र	<u>ታ</u>	⊋ <i>F</i> ′	? +
Pronunciation by gas flow from lung	Organs touch, separate and remain in narrow no position	Voiceless Voiced	FF. FF.	ন্থ ন	上		
tion by g	Organs touch continuously at the center and both sides are near	Voiceless Voiced	म्यं स्य	₹	ፓ′		
Pronuncia	Organs touch continuously at the center and both sides are narrow	Voiceless Voiced	मिस				
	Organs touch continuously at the center, both sides touch in a moment and then apart wide	Voiceless Voiced	H: Ù:				
	Organs touch continuously at the middle and both sides touch in a moment and then remain near	Voiceless Voiced	FREE				
	Tap or Flap	Voiced	-1.				
	Trill(like Russian p) 💉	Voiced	7 ,	R &			
	Gas flows from nostril	Voiceless Voiced		Z°Z \$\$			
lung	Ejective 📅	Voiceless	11**	₫,1+			
rom	Clicks !!*	Voiceless	<u>;;</u> >				
not fi	Lateral clicks	Voiceless	! "≯				
gas flow not from lung	Implosive:	Voiceless Voiced	ii"	િ 4 વ્ 1_			
no gas flow	Some kind of double consonants			4			

Table 5-4 Comparison of Consonants of IPA and Universal Literacy Alphabet(3) CONSONANTS(NON-PULMONIC)

Clicks			Voiced implosive	S	Ejective	• +
Bilabial	0	U>	Bilabial	Б J ⁻	Examples	
Dental	-	۲>	Dental/alveolar	q v_	Bilabial	P, 1₁+
(Post) alveolar	i	٥>	Palatal	£ 1/2	Dental/alveolar	t° ∮†
Palatoalveolar	+	1>	Velar	a K′	Velar	k'K
Alveolar latera		۵>	Uvular	44	Alveolar fricative	

OTHER SYMBOLS (Main parts are already shown in Tables 1'5-3)

Simultaneous ∫ andX	Ð	\$ (K+	-b)		
Alveo-palatal fricative ⊊ ½(₽	+ \)	. z W	(2+ + 4)	′)	
M K W K UK H	E &	Z'	2 ₹′	9	Ŧ

Alveolar lateral flap Ţ F′

Above all are already shown in Tables 1~5-3

DIACRITICS

Voiceless	ů Þ.	₫ Þ	Breathy voiced b a Dental t t d t'
Voiced	5 ≥′		Creaky voiced ba Apical the gr
Aspirated	tµ ∳	dh ≹	Linguolabial the def Laminal the def
More rounded	3		Labialized t 보 d W Masalized ê 나
Less rounded	Ş		Palatalized the disconsisted an so
Advanced	ħ		Velarized t ^y ♭、d ^y ♭′、Lateral release dl ♭′
Retracted	ē		Pharyngealized to b, of b; No audible release d?
Centralized	ë		Velarized or pharyngealized よ が 友
Mid-centraliz	ed		Raised $\stackrel{e}{\downarrow}$ ($\frac{1}{4}$ = voiced alveolar fricative)
Syllabic			Lowered e (🛱 = voiced bilabial approximant)
non-syllabic	ē		Advanced Tongue Root e
Rhoticity	a~ +b	a~ L	Retracted Tongue Root &

Suprasegmentals

Long	X	7
Half long	7	7
Extra short	_	+

[Above symbols are to be written on the right hand side of a letter]

Syllable bre	ak
ıi.ækt	Dr. r. K D

Level	tone
Extra	high] 🖪
High	47
Mid	ㅋ =
Low	1 -
Extra	ion I n

Contour tone							
Rising / -	Low failing 1 ³¹						
Falling V-	Rising falling 7~						
High rising 1 *	Failing rising ^Y ~						
Low rising 14	Rising falling						
High falling 17	rising 7~						

[To be written on the left side or above the syllable]

[Example phrases]

```
1 The other day, he asked me, "Have you read this book?". (English: Latin Script)
                   ULA: 4'r = 4'+ $/+r, Lr- LDK > 10'r-, "LLP' \4- $/+ $ $ 4'r 14' K ? " .
    2 지금부터 우리말 방송을 시작하겠습니다 (Korean: Korean Alphabet)
    ULA: ½τ Κ΄ η ||σ'||σ'|+ η ||τ ||σ'||σ'| || μκσ') η Κοκ' η | ½τ | Δικινημούς | μικο') η κικοι | Δικινημούς | μικο') η κικοι | Δικινημούς | μικο') η μικο' η μικο') η 
    ULA: Kark'L Yar DIK"Kr Di LDDL
     5 Ich glaube da \beta Esperanto die einfachste Fremdsprache für uns ist.
                         (German: Latin Script)
            ULA: 17 KPLAH+ D'LD +DH+1/L-BODA DE- LEBOTL J-DD+ P//+110B
                                     PHY - 4 16-4 4 65 - 15 + 0
    б ТоварищИваницки, язнаю, гдеон
                            живёт. (Russian: Russian Script)
    ULAL + アレッド r b r ア c b r p k r っ , / にっ と b に p k r っ d p b r p k d っ p も p を p k r p k d っ p も p を p k r p k d っ p も p を p を p k r p k d っ p も p を p k r p k d っ p も p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r p k r
    ULA: ~ bq K° - K qq ~ kr-7 * Kq L K° ~ kq ~ pr p° - pr c.

8 Radio France International! L'actualite en France! (French: Latin Script)
            ULA: Y'L B'rd PY'LO - BOD = OBOD = Y'B'L Ed B'L - B'! B' LK B. 9L Br B+
                                  1080 18,50-18,1°
                        धना वाप ।
                                                                                                       (Bengali: Bengali Script)
                     ULA: papadfing.
     10 नपस्कार।
                                                                                                                          (Hindi: Devanagari Script)
                  ULA: PHINT DELK.
     11 ៕១បុគ្គសុគទ័ប (Thai: Thai Script)
                    OTTY: KANHK daka Kkirill .
     مِنْ فَضَالَتُ 12
                                                                                                                      (Arabic: Arabic Script)
                     ULA: porpopity bake.
                                                                                                                      (Hebrew: Hebrew Script)
     עולום 13
            ULA:: bLB4-1100
     14 Εσίη)
ULA: β', β', β', σ (Tamil: Tamil Script)
15 σ τ ο κ α λ ο!
ULA: Δ λ λ κ κ β λ ξ ι β' γ (Greek: Greek Script)
     16 un ULA: ||o'r | o' | k' L | k' L | | (Burmese: Burmese Script)
Table 6 Comparison of Korean Alphabet, IPA and Universal Literacy Alphabet
(ULA)
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Table 6 Comparison of Korean Alphabet, IPA and Universal Literacy Alphabet (ULA)

Table 6 (A) Simple Vowels of Korean Alphabet

Korean Alphabet	ŀ	þ	4	려		п	7	π		1
IP A	а	ĵа	Э	Î ə	Q	jο	u	ju	m	i
ULA	L	YL	+	\ ′ +	þ	\ ′ d	٩	1/9	7	ر

Table 6 (B) Joined Vowels of Korean Alphabet

Korean Alphabet	F+1= H	4 +1 =-11	ㅗ ᆉ ᆕᅪ	+ + = 4
IP A	æ	e	W a	₩æ
ULA	tı.	ŀ	lK'ı	[K, r

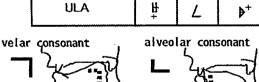
Korean Alphabet	ㅗ +l == 러	╸┼┤═╸┤	++===	- +1= 1
IP A	0e	e w	w i	w i
ULA	Þ	lK′+	ľK'r	71

Table 6 (C) Consonants

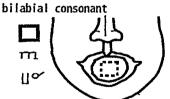
Korean Alphabet	٦	ı	Е	1	0	ㅂ
IP A	9,k	n	d.t	1,1	m	b.P
ULA	K, K	Por	ð , þ	5' . b'	Πο _ν	H', H

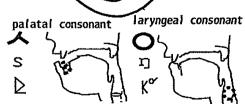
Korean Alphabet	^	0	×	*	9	E
IP A	S	ŋ	a3 · tĵ	tjh	k ⁿ	t ^h
ULA	Þ	Ko	b', b	草	Ķ-	Þ

Korean Alphabet	п	ᅌ	EE
IP A	Ьµ	h	ť'
ULA	#	۷	₽ +



Π





Above figures are taken from "The Principles of Making Hangul (in Korean:Hangul ul Mandun Wonri)" by Kim Yong-Ho, Hak Ko Je, Seoul, (2005), pp.112-116

g,k

K', K