In search of a more effective way to teach a global language, English, to Korean EFL students
— Common Problems in teaching English to Korean children ages 6 through 12

Presented by Lee Young-Jae, Chairman, Foreign Language Limited, Seoul, Korea at the International Conference on Thinking held in Phoenix, Arizona, U.S. A. on July 21, 2003

Teachers, especially those who teach foreign languages, have always tried to find more effective ways of teaching, usually by adopting some kind of new approach or method. Since the middle of the nineteenth century various approaches and methods have been developed for foreign language teaching, beginning with the Grammar-Translation Method, followed by Direct Method, Situational Language Teaching, the Audio-lingual Method, Total Physical Response(TPR), the Silent Way, and Suggestopedia,. Communicative Language Teaching, etc. However, new approaches and methods have never totally invalidated or replaced previous ones despite the belief of some inventors of new methods that the old methods were totally wrong and their new method totally effective. When a new approach or method is applied in a foreign language classroom, it usually activates students and teachers for a while, arousing curiosity and enthusiasm in anticipation of some kind of miraculous learning effects. Whatever the new inventors say, such enthusiasm fades away as time goes by and many teachers revert to previous activities and techniques that have passed out of fashion. However, they do not throw away a new method altogether even if it didn't give them complete satisfaction. They take advantage of some of the effective elements in the new method whenever there occurs an opportunity to apply them in their classes. Most teachers are eclectic in adopting new approaches and methods in combination with previously used ones. They apply all these methods in their own way catering to the needs of their students. Many teachers think that there is no royal road to teach foreign languages and that the best way is the one that works best for their students. For this reason, many teachers are constantly searching for better approaches and methods that fit their students’ likes and dislikes, way of behavior and thinking, and motivation. For example, children in the age of the internet and multimedia are very much different from those who learned foreign languages using only printed textbooks and workbooks.

Experimentation with widely used second language teaching methods

Since I started to teach English in 1955, and especially since 1981 when I established a private English language teaching institute, I have been experimenting with most of the widely used second language teaching methods in my classes. Here are the methods I experiments with in my classes:

- Grammar-Translation Method,
- Direct Method,
- Situational Language Teaching,
- The Audiolingual Method,
- Total Physical Response(TPR),
- The Silent Way,
- Suggestopedia,
- Communicative Language Teaching

An approach that is called interplay, the interaction of language learners and teachers.

For the young learners, the following resource books for teachers were most frequently used:

- Sound Spelling Harmony : Teacher’s Manual by Paul V. Griesty & Yoshiko Yanoshita, 1985
- Various materials for interplay and interaction of language learners and teachers, Pro Lingua Associates
- STORYTELLING WITH CHILDREN by Andrew Wright, OUP, 1995
- VERY YOUNG LEARNERS by Vanessa Reilly & Sheila M. Ward, OUP, 1997
- GRAMMAR DICTATION by Ruth Wajnryb, OUP, 1990
- English through Pictures I through III by I. A. Richards & Christine Gibson, Pocket Books, 1973
The Phonics Handbook by Sue Lloyd, Jolly Learning, 1996

Every time I tried a newly developed method, while it gave me an insight to reflect on the merits and demerits of my previous teaching methods, **none** of them, when applied alone, provided a **satisfactory solution** to the many problems my students encountered. Experiencing such difficulties and frustrations in the course of teaching English to Korean students, I felt **guilty** that I used my **students** as **guinea pigs** in order to **experiment** with a **new method**.

**Developing interactive multimedia English teaching programs**

**Professor William Maxwell** once told me that if anyone wants to achieve **native-like proficiency** in English, he or she needs to be **exposed to English** language for more than **4,000 hours**. In order to give our students more opportunity to listen to authentic English and practice what they learned in class by using audio-lingual devices, we established a **language laboratory in 1981**. Since 1997 we installed **computer workstations in all our language classrooms connected to a central network server** that enables all the students to use interactive multimedia English Language Learning programs.

By using interactive multimedia programs, **memorizing, retention, and recollection of words, idioms, grammar rules**, and especially the **word order** of English, which is entirely **different** from that of Korean, were very much facilitated.

**Our own multimedia programs** focused on the **difficulties** that arise from differences **between syllable-timed Korean language and stress-timed English language**. Our programs concentrated on the pronunciation of **suprasegmentals** as well as **segmental phonemes, word order**, and **grammatical points** that cannot be easily learned through explanations of grammar rules, such as the use of **articles, prepositions**, etc. My experiments in English language instruction with the support of interactive multimedia programs corroborated the theory explained in **William Maxwell's Global English Course**, **Frederic Vester's: Denken, Lernen, Vergessen** and **Kim Byong Won's Why Can't You Have A Better Command of English**.

**Frederic Vester** explains that **thinking** and **learning processes** are **most effective** when **comprehensible information** is taught **through multiple channels** of the **sense organs**. This **learning process** produces **multiplier effects** as illustrated in the following diagram:

![Diagram](image).

The **Total Physical Response approach** using all kinds of **sense organs** and interactive multi-media language learning programs are most **suitable** for this **purpose** because they are designed to use **several** of the learners' **sense organs**, i.e., **eyes, ears, mouths, tongues, throats, lips, fingers**, to **perform** the **learning activities** of **Listening, Speaking, Reading, and Writing**.
Why can’t Koreans have a better command of English

A study conducted by a Korean professor of English, Kim Byung Won, to find why Koreans cannot have a better command of English, revealed that the average TOEFL scores of 33 graduate students tested for this purpose indicated an extremely low percentage of correct answers as shown below:

Listening Comprehension:
- Short statements: 44.4%
- Short Conversations: 32.7%
- Talks and Lectures: 47.7%

Structure and Written Expression:
- Sentence completion: 66.3%
- Grammatical errors: 69.2%

Reading Comprehension
- Vocabulary: 67.8%
- Reading Comprehension: 62.1%

Kim Byung Won notes that the most important thing is to enable the students to enlarge the range of meaningful groups of words and to increase the speed of listening and speaking.

The Grammar-Translation Method and the use of Korean language in teacher-centered classes

Critics of the traditional way of teaching English, the Grammar-Translation Method, that has been used in Korea since the 19th century, point out that most Korean teachers of English have been spoon-feeding their students in the course of teaching English. As a result, English classes become teacher-centered one-man shows and students are simply being taught by rote to memorize the pronunciation and translation of English words and phrases. Explanations of grammar points, sentence-by-sentence translation of discourses, and the analysis of embedded grammar rules are central to such teaching. Now it is being recommend that English classes should be changed to student-centered and English learning should be carried out through interaction and the use of Korean language in English classes should be prohibited.

Experiment with Interactive Methods in student-centered classes taught by native speakers of English prohibiting the use of Korean language

Following this advice, we conducted our experimental classes in this way by employing native speakers of English who could not speak Korean. In the beginning students were interested in the new way of learning through interaction with the teacher and other students, especially in playing games with various kinds of materials devised for this purpose, but when we evaluated their proficiency in various aspects of language skills, i.e. reading, listening, speaking, writing, vocabulary, and grammar, we found that their proficiency in grammar, vocabulary, reading (especially the reading comprehension of relatively long and complex sentences) showed disappointingly little progress compared with the control group which had been taught in the traditional Grammar-Translation Method by Korean teachers.

Should the Grammar-Translation Method be abandoned and the use of a mother tongue be prohibited in foreign language teaching?
The reason why the students in the experimental group achieved little progress was that the Korean language was prohibited in class. They were not able to understand what their teachers paraphrased and explained while teaching the meaning of words and sentences and important grammar points. Especially those English grammar points that are entirely different from those of Korean were not dealt with partly due to the lack of time. It was partly due as well to the ignorance on the part of the foreign teachers about the Korean language and its grammar.

A survey conducted by Prof. Jung Hyun-sook recently (2003) revealed that although a certain extremist theory strongly asserts that grammar should not be taught because it is harmful to learning English, and some English language schools do not teach grammar and phonics in their classes under the influence of the whole language theory, 100% of the 34 graduate students majoring in English language education who responded to the questionnaire, expressed their strong disagreement to the prohibition of teaching grammar.

Eclectic integration of the old and new approaches and methods with the support of interactive multimedia programs

We devised an eclectic way of integrating the Traditional Grammar-Translation Method and Interactive Direct Method using only English in class. While maintaining the interactive class, we developed many multi-media interactive English learning programs with Korean translations and annotations added so that students could use them whenever they needed them. In this program students were provided with abundant examples, aids, guidance, hints, explanations, suggested solutions, etc., accompanied with Korean translations, which they could use when absolutely necessary.

Interactive multimedia programs have been very effective in teaching grammar and pronunciation of suprasegmental as well as the segmental aspects of the English sound system.

These interactive multimedia programs have been very effective in teaching English grammar items, especially the use of articles and prepositions, which cannot be effectively learned without intensive practice, and also in teaching the pronunciation of suprasegmentals — rhythm, stress, and intonation — as well as the segmental aspects of the English sound system — consonants and vowels. In this program, we used article and preposition transcribing exercises which required students to listen to a segment of a dialogue or discourse repeatedly until they were able to remember all the sentences. Then they were asked to type in what they had heard. They were prohibited from typing word by word so that they soon learned to understand connected speech in meaningful groups of words. We reinforced this by teaching sense groups in addition to blank-filling exercises. Finally we used Grammar Dictation exercises which require the student to write down only key content words while listening once or twice to the appropriate segment in the discourses. After these exercises, students were asked to do role playing exercises using the recording device. In this exercise, students were provided with the model conversations or lectures recorded by native speakers of English. Students then chose one of the roles of the speakers and recorded their model sentences. Then by clicking the “Compare” button, students heard both his recording and the native speaker’s while comparing both of them.

Finding a solution to unique problems common to Koreans that kept them from mastering English

My interest shifted to finding out why most Koreans do not have a better command of English despite the fact that they spend enormous time and energy learning English. I assumed that there must be unique problems common to Koreans that kept them from mastering English. This may be because of the fundamental differences between the Korean and the English language. For example, there are great differences between the two languages in the way of pronouncing not only of segmental but also of suprasegmental
aspects, and in spelling, grapheme-phoneme correspondence, word order, various grammar points and the like. This led me to a contrastive analysis of the marked differences between the two languages which cause difficulties to Korean students in learning English. I have found that Korean students’ errors arise from the pronunciation of the vowel phonemes, spelling as a result of wrong pronunciation, and word order. It was found that there are also many other errors that are made due to the unnoticeable subtle differences between the two languages. The interference is rather stronger in this case because students do not recognize these slight difference and tend to understand and produce English in the pattern of the Korean language.

In the course of this contrastive analysis, I met Professor Paul V. Griesy who have spent more than 40 years in searching for the most effective way to teach English to Japanese students. He developed a system to teach grapheme-phoneme correspondence of the English Language. His life-long work is called Sound Spelling Harmony [SSH]. It is a system which was developed for Japanese students learning English to solve problems similar to those for which I have been trying to find a solution.

I translated Dr. Paul Griesy’s series of books entitled “Sound Spelling Harmony” into Korean and published them in Korean with some adaptations for Korean learners of English. Since the publication of the Korean version, I started to experiment with SSH using various age groups of students. This system was very helpful to Korean teachers of English and university students who were majoring in English language teaching as well as to the students in my experimental classes. Although it might be an exceptional case, a few of my students who started learning English with SSH at the age of 6 achieved almost native-like fluency in spoken English as well as in the knowledge and skills of vocabulary, reading and grammar.

His system of SSH helped me a great deal in my contrastive study of Korean and English as well as that of Korean and Japanese. Here, however, there is not enough time to describe all the differences between the three languages.

Similarities, and marked and slight differences between English and Korean, and between Korean and Japanese

Here are a few examples of the similarities as well as the marked and slight differences between the two languages in the aspects of pronunciation and grapheme-phoneme correspondence that I have used in teaching English, especially teaching the Sound Spelling Harmony system in my experimental classes.

The tenseness or laxness of English vowels represents the difference in meaning, whereas Korean vowels has no such difference, and their pronunciation length produces the difference in meaning.

In Korean, there are no vowel phonemes that are exactly the same as those of English vowel phonemes. Some Korean vowel phonemes similar to English vowel phonemes are slightly tenser than the similar English vowel phonemes whereas the other vowel phonemes are slightly laxer than the similar English tense vowel phonemes. Furthermore, the tenseness and laxness of English vowel phonemes represents a difference in meaning in minimal pairs, such as, bean and bin; beat and bit, but the Korean language does not have such differences of tenseness and laxness. Differences in meaning are indicated by the length of the vowel pronunciation. For example, the longer pronunciation of the vowel of the word "ch" means a "chestnut" whereas the shorter pronunciation of the vowel of the identical word "n" means "night." In English the length of vowel phonemes does not produce the difference in meaning while vowel phonemes followed by voiced consonant phonemes are pronounced longer than those vowel phonemes followed by voiceless consonant phonemes. If any English word is not pronounced in this way, it will sound awkward, but unlike Korean, it will not change its meaning.
The distinction between the tenseness and laxness of English vowel phonemes is central to teaching English to Korean students because it serves as distinguishing factor in the recognition of the meaning of words. For example, there is only one vowel sound similar to these three English vowel sounds: /i/ [22] as in he, /ɪ/ [3] as in him, and /ɪ/ [2] as in the second syllable in city. As a result, Korean students pronounce the three different vowels in the same sound /ɒ/ [3], which is similar to English vowel phoneme /i/ [2].

The difference in grapheme-phoneme correspondence between Korean and English

The most baffling problems lie in the difference in grapheme-phoneme correspondences between the two languages. In English, the same vowel letter is pronounced in many different ways depending on the combination of letters used to form a word. The letter “A”, for example, can be read with eight different pronunciations, only one of which corresponds to its name:

1. [ei]: bake (extra ‘e’ is necessary to make the letter “a” sound like its name)
2. [æ]: back (the sound of the letter “a” changes to a different sound [æ] when the extra letter “e” is added and the extra letter “e” is dropped.)
3. [ɔ]: bald (when a is followed by “ld”, “a” is pronounced as [ɔ]).
   - balk (when the letters “al” is followed by the letter “k,” the letter “l” is silent),
   - pause (when “a” is combined with the letter “u”, “au” is pronounced as [ɔ]),
   - taught (when “a” is followed by “ught”, “au” becomes [ɔ] and “gh” is silent),
   - law (when “a” is combined with the letter “w”, “aw” becomes [ɔ]).
4. [ə]: spa, spar (the letter “r” is added, but the sound of the letter “a” remains the same as “spa” which has no “r” at the end of the word.),
   - psalm (the letters “p” and “l” are silent)
5. [ʌ]: spare (when “re” is added after the letter “a”, the sound of “a” changes again to [ʌ].)
6. [ə]: along (the letter “a” is reduced to schwa)
7. [i]: cabbage [kæbɪdʒ] (the letter “a” in the second syllable changes to [i])
8. [ar]: collar (when “ar” is in an unstressed syllable, it changes to a different sound [ar] in contrast with the same “ar” in a stressed syllable “carbon [kɑːˈɜːrboʊ]”

Furthermore, the letter “a” is not pronounced and it simply causes the preceding vowel letter to be pronounced as its name sound: boat [bout].

Not only vowels, consonants too, although not having as many pronunciations as vowels, are pronounced differently from their names. For example, the letter “c” is pronounced as two different sounds:

“cat [k]” and “cent [s]”; the letter “g” is also pronounced in two different ways: “gentle [dʒ]” and “game [ɡ]”. Sometimes, consonant letters are not pronounced, as in know, knob, gnu, calm, comb, sight, hymn, column, etc.

The various ways of the pronunciation of the words shown above appears to indicate that he graphemes and phonemes of these words are not based on any regular rules, but the Sound Spelling Harmony (SSH) system explains the underlying rules governing such various pronunciations. About 90% to 93% (if the harmonic words are considered) of the English
words are pronounced according to the consistent rules. The remaining 7% (if the harmonic words are excluded) to 10% of the English words are pronounced irregularly. They have to be learned by rote memory.

Here are more examples of difficult problems for Koreans that arise from the differences between Korean and English.

Unlike Korean, there appears to be no consistent rules governing grapheme–phoneme correspondence in English. For example, the words that have the same spelling pattern ough are pronounced entirely differently as shown below:

- **ough**¹: through [θruː] Initial digraph th is voiceless, ou is No.66 vowel sound, and ending digraph is silent.
- **ough**²: though[ðou] Initial digraph th is voiced, ou is vowel No.06, and ending digraph is silent.
- **ough**³: rough[tʌf], tough[tʌf], enough[ɪnʌˈf] The vowel letters ou is vowel No.1 and the ending digraph gh is pronounced as /θ/.
- **ough**⁴: cough[kɔːf] The vowel letters ou is vowel No.99 and the ending digraph gh is pronounced as /θ/.
- **ough**⁵: bough[bau] The vowel letters ou is vowel No. 06 and the ending digraph gh is silent.
- **ough**⁶: thought[θɔːt], bought[bɔːt], sought[sɔːt] Initial digraph th is voiceless, ou is vowel No.99, and medial digraph gh is silent.*

* When the letter “t” is added to “ough”, as in thought, bought, sought, “-ough” is always pronounced [ɔːt], i.e. No. 99 + /θ/.

**The interference of Korean with the sounds and the spellings of English words**

Unlike English, every Korean word is always pronounced as it is spelled. The sounds of Korean vowel phonemes never change even when the number of syllables increases or the stress is shifted to the other syllables. As the Korean language is not a stress-timed rhythmic language, no vowels in a word with more than two syllables are reduced. Unlike English, Korean function words are never weakened [or reduced] in phrases and sentences. They are always pronounced the same whether they are present in phrases or sentences or stand alone. Furthermore, no vowels and consonant phonemes are changed to other sounds depending on the pattern of their combinations. Therefore, Korean students tend to pronounce unfamiliar words according to the way Korean words are pronounced.

**Overgeneralization or Pronunciation like Latin Vowels**

When they come across derivatives of the words they have already learned, they pronounce them by overgeneralization and/or pronounce them as the Latin vowels are pronounced. For example, when they come across the words “molecule,” “horizontal,” “ballistic,” and “zoological” after they learn the pronunciation of the words “mole,” “horizon,” “ball,” and “zoo,” they pronounce these syllable in the same way as the words “mole,” “horizon,” “ball,” and “zoo” are pronounced. For example,

“molecule” is mispronounced either as /mɔlˈkjuːl/ in the Romanic way or as /moulkjuːl/ by overgeneralizing the word “mole” instead of /maˈlikjʊːl/;

“horizontal” is mispronounced as /ˈhɔːrɪznɑl/ instead of /ˈhɔːrɪznəntl/; and

“ballistic” is mispronounced as /ˈbɔːlistɪk/ by analogy with the words ball /bɔːl/” instead of [bализistik]; and
"zoological" is mispronounced as /zuˈlɒdʒɪk/ instead of /zəʊˈlɒdʒɪk/. On the basis of similar inference, "restaurant" is mispronounced as /rɛˈstɑːr/ instead of /ˈrestoʊˈrɑːnt/. This is due to their ignorance of the grapheme-phoneme correspondence rules of the English language. According to SSH rules, the primary stress in the word “horizon /ˈhɒrɪzn/” falls on the second syllable /ˈrɪ-/ /ˈrɑː-/ and it shifts to the penultimate /zn-/ /ˈzaːn/ because primary stress is placed in the syllable immediately before the suffix –al. The first unstressed syllable /har/ changes to /hər/ because the second stress is in the first syllable. According to SSH rule “or” is pronounced as /ər/ [vowel No. 99 in SSH] when it comes in a stressed syllable, but it is reduced to /ər/ [vowel ʌ in SSH] when it comes in an unstressed syllable. The stressed syllable /ˈrɪ-/ /ˈrɑː-/ in the word “horizon” is reduced to schwa /ə/ in the word “horizontal” to make it sound rhythmical. The sound of /mou/ in the mono-syllable word “mole” changes to “mole”/ˈmaːli/ when it comes in the three syllable word “molecule”/ˈmaːlikjuːl/ and the sound of /boːl/ in the monosyllable word “ball” is reduced to “ball”/bɑːl/ in the three syllable word “ballistic,” and the sound of the syllable “au” in the word “because” is reduced to schwa /ə/ in the word “restaurant.” These changes in pronunciation of the same vowel letters are due to the shift in word stresses that arise from the increase in syllables.

In the Korean language, such irregular unpredictable changes of the sound of the letter never happen. In Korean, all the vowel letters and consonant letters are pronounced in the same way and each letter has only one sound. Accordingly, in learning English, Korean students must now begin the task of learning the pronunciations of the various letters even before they are combined to form words.

On the first day of my SSH classes for Korean teachers who teach English to young children, I used to ask my students to read a list of words that I had chosen on the assumption that they might not be able to pronounce them correctly. This is to motivate them to learn these rules and later on to teach these rules to their students. Whenever any of the students read any of the words correctly, I asked them why they read the words in that way and not in other many possible ways. Most of my students were not able to pronounce them correctly to say nothing of explaining the reasons why they are so pronounced.

Here are the words which with which I tested them.

- scythe
- genome
- palindrome
- anagrammatic
- prefade
- cumulostratus
- hegemony
- allergy
- longitudinal
- triune
- xenolith
- pedometer
- alderman
- cirripede
- porpoise
- turquoise
- eucalyptus
- acetaldehyde
- southern
- finger
- singer
- exoteric
- exhumed
- comma
- record
- fury
- flurry
- polyglot
- mirth
- mansion
- vision
- pressure
- pleasure
- trajectory
- persevere
- perimeter
- perimetrical
- epistemology
- stingy
- sting (having a sting)
- analyst
- analysis
- hubris
- hiatus
- ruble
- ruble
- epitome
- asthmatic
- indigenous
- catadromous
- isosceles
- trapezium
- caliper
- anaconda
- omnivorous
- herbivorous
- platypus
carnivorous [0-3-1-1], insectivorous [3-4-3-1], echidna [3-3-1], Magellan [1-4-1]

Most of the students could not pronounce most of the words listed above correctly and none of the students who could correctly explain their rules. When they pronounced some of the words correctly, that was because they had learned them by rote. My students’ wrong pronunciation is due to the ignorance of the grapheme-phoneme correspondence rules of English. This can be corrected when they learn the rules, such as e-l-y rule for the letters C and G, reduction and lateralization of vowel sounds, syllabication, word stress, and some other easily learnable phonic rules.

Persistent interference of foreign loan words with the correct pronunciation of English.

However, there is another very persistent and strong factor that interferes with the correct pronunciation of English. For example, the following words are pronounced as the Japanese incorrectly pronounce them:

- genome /genom/, hegemony/hegemoni/, allergy/arergi/, record (verb)/rekodi/, singer/singa/, veranda(h)/beranda/, balcony/balkoni/, tomato/tomato/, acacia/akasia/, banana/banana/, asparagus/asparagas/, collagen/kolagen/, accessory/aksesari/, barometer/barometra/, parameter/parameta/, paradigm/paradim/, serenade/serenade/, anemone/anemone/, comma/komma/, acetaldehyde/asetaldehid/.

As most of the loan words used in Korean were introduced during the Japanese colonial rule before the Second World War, the pronunciation of the loan word followed the way Japanese pronounce them. All the vowel letters A, E, I, O, U are pronounced as /a/, /e/, /i/, /o/, /u/ and the letter g is always pronounced /g/.

I asked my students to try to rectify the wrongly pronounced loan words to correct English pronunciations. This exercise was very effective in teaching SSH. Many wrongly pronounced “Japanized” loan words, which do not sound like English and which are therefore useless as English became useful and active English words after this exercise. The notation in Korean “Hangul” of wrongly pronounced loan words were changed to the appropriate pronunciation of English as much as possible by adding extra symbols to make the Korean vowel and consonant phonemes sound like English phonemes. For example, the notation of the following loan words were changed as shown below:

- 바나나/banana/ → "바나나" /바나나/ → /banana/banâna/
- 애니메이션/æniméiʃən/ → "애니메이션" /æniméiʃən/ → /animation/æniméiʃən/
teaching and practice of SSH rules, such as the pronunciation and spelling of vowel and consonant phonemes, syllabication, lateralization, reduction and stress. This practice enabled the students in the experiment group to more easily acquire unfamiliar words through the loan words which they already know.

Adapting SSH series of the Japanese version into the Korean version

Both Japanese and Korean are syllabic-timed languages. The words in sentences are in the same order. Most of the grammar in the two languages is similar as well. Furthermore, both Korean and Japanese use the same Chinese characters for content words although their pronunciations are different. In addition, most significantly of all, both Korea and Japan are influenced by Sinic (Sino) culture, and under the same religious influences by Buddhism and Confucianism for such a long time that ways of thinking and life styles are very similar. Therefore, I assumed that there would not be many problems in adapting the Japanese version of Sound Spelling Harmony into Korean. However, in the course of adapting this SSH series into Korean, I found some very significant differences between Japanese and Korean. After adapting these into Korean with the positive assistance of the author and developer, Paul V. Griesy, I realized that this SSH system is much more suitable and easier for teaching English to Koreans than to Japanese.

Similarities and Differences between Korean and Japanese

Despite the many similarities between Korean and Japanese, the system of language symbols or characters and grapheme-phoneme correspondence rules are entirely different from each other. Except for the independently used five vowel letters, called “kana,” all the Japanese characters are combinations of a consonant phoneme and a vowel phoneme forming one character. There is also a nasal phoneme which does not have an attached vowel phoneme. On the other hand, the Korean language has characters consisting of 14 consonant letters and 10 vowel letters, together with 5 doubled consonant letters and 11 combined vowel letters that together form different sounds. All these 40 letters have only one distinct sound and each sounds the same all the time. In other words, each of these 40 letters is pronounced with only one sound which never changes in whatever combination of letters are used to form a word. Here lies the fundamental difference between Korean and Japanese as well as between English and Japanese.

Unlike Japanese as compared with English, the Korean way of forming words and of pronouncing them is similar to that of English

Unlike Japanese, Korean combines consonants and vowels to form words in the same way and pronounces them in the same way as English. For example, the English word “can” (c+v+c) can be transcribed in Korean characters as “챈” (c+v+c) and pronounced almost the same as English although the Korean vowel phoneme “ㅐ” is slightly tenser and the tongue higher than the English phoneme /æ/.

Furthermore, unlike Japanese, the way of pronunciation, when linking the words ending in consonants and the word beginning with vowels, and when linking the words ending in consonants and the words beginning in consonants, are the same in both English and Korean. For example, Just as “mop up” and “come in” are linked, their transcriptions into Korean “말 엎” and “컴 인” are pronounced “마ظل,” and “커민,” and just as “keep cutting,” and “fat chance,” their transcriptions into Korean “𬺓” are pronounced as “킬 컷팅,” and “фиצל 천스,” are pronounced as “킬 컷팅.”
Of course, there are as many differences between English and Korean as between Japanese and English. In teaching the pronunciation and the grapheme phoneme correspondence rules of the English language SSH is more effective for Koreans than for Japanese.

Teaching the pronunciation and grapheme-phoneme correspondence of the English language – Sound Spelling Harmony developed by Paul V. Griesy with some adaptations in view of the differences between Japanese and Korean as well as between English and Korean

Here is a brief overview of Sound Spelling Harmony [SSH] system and some of its most prominent approaches and methods that I have found very effective when I have been using them in my experimental classes (albeit with adaptations for Korean students) over the past 7 years.
1) Starting with the instruction in the Alphabet

We taught the Sound Spelling Harmony system to the beginners of English aged 6 through 12 starting with the instruction of the Alphabet. This instruction is based on the premise that as students carefully pronounce the names of the letters of the alphabet they learn seven of the 15 vowel phonemes of English (eight if /r/ is considered, as we do, identical to the vowel /r/), and seventeen of the 25 consonant phonemes. This instruction indicates these seven sub-groups based on the vowel phoneme present in each of the names of the letters. Each sub-group is assigned a unique number representing its tongue position and one of seven colors implying its order in the size of each group members as shown below:

Seven Alphabet Groups

1) **E Family**: 22: Red  
   - E B C D G P T V Z
2) **A Family**: 42: Yellow  
   - A H J K
3) **U Brothers**: (y) 66: Orange  
   - U Q W
4) **Lonely O**: 86: Purple  
   - O
5) **Twin sisters I & Y**: 02: Green  
   - I Y
6) **No. 4 friends**: 4: Blue  
   - F L M N S X
7) **Lonely R**: 0: Pink  
   - R

Fundamental relationships between the letters

As the names of the letters in these sub-groups are practiced students will also be taught several fundamental relationships between letters, e.g., D and T; S, C, and Z; F and V; C and G; G and J; U, Q and W; I and Y; E group [No. 22 family: E B C D G P T V Z] and No. 4 friends [F L M N S X]; O and R, etc. We can teach these fundamental relationships between the letters as explained below:

1. **Voiced versus voiceless sounds:**
   - D and T; S, C, and Z; F and V; C and G.
2. **Relations between C and Q and between G and J:**
   - The letter C has two different sounds both of which are voiceless, i.e., before e, i, y, it is pronounced as /s/ and before other letters as /k/. In contrast to the letter C, the letter G, which is formed by adding a horizontal stroke to the letter C, has also two different sounds both of which are voiced, i.e., before e, i, y, it is pronounced as /s/ and before other letters as /g/.
3. **Transfer of voiced to voiceless or vice versa:**
   - B (voiced) to P (voiceless): describe to description,
   - V (voiced) to F (voiceless): leave to left; cleft to cleft
   - F (voiceless) to V (voiced): knife to knives; leaf to leaves
4. **The letter Q is always followed by the letter U, another letter of No. 66 sub-group and the sound of the letter U is borrowed from the sound of the other letter of the No. 66 sub-group. There is no word in English that ends in the letter Q.** This is because there are sufficient number of the word final letters that are pronounced as /k/, such as -c: economic,
ck: pick, -k: bank. There are only a few words that end in -que, such as cheque, technique, unique, physique, antique, burlesque, Romanesque, picturesque, grotesque, etc, but in all these word-endings, "-que" is pronounced as /k/ instead of /kw/.

5. Borrowing the other group member’s letter:
sky to skies, cry to cries, try to tried.

6. Relation between the E group [No. 22 family: E B C D G P T V Z] and the No. 4 friends[F L M N S X]:
The vowel phoneme No. 22 sound /i:/, which is represented by the vowel letter E, is present at the end of each name of the other letters of the E sub-group, as in B/bi:/, C/csi:/, D/di:/, G/ji:/, P/pi:/, T/ti:/, V/vi:/, Z/zii:/, which means that the names of these letters end in open syllables. In contrast to E group, the vowel phoneme No, 4 sound /e/ is embedded before each consonant sound of each letter name of the No. 4 sub-group, as in F/ef/, L/el/, Mem/, N/en/, S/es/, X eks/, which means that the names of these letters end in open syllables. Interestingly the same letter E is pronounced as the No. 22 sound /i:/ in open syllables, as in the words 'he,' 'me,' 'she,' 'we,' etc., and it is pronounced as No. 4 sound /e/ in closed syllables, as in the words 'hen,' 'men,' 'shell,' 'well,' etc.

7. Relation between O and R:
The letter O is pronounced as No. 86 vowel phone /ou/ when it comes in an open syllable, as in go, no, so, etc., whereas the same letter O is pronounced as No. 0 vowel phoneme /a/ in a closed syllable, as in got, nat, sad, hot, etc. In the name of the letter R, the No. 0 vowel phoneme /a/ is embedded before the phoneme /ə/ (In SSH /ə/ is replaced by /Я/ that is called ‘reversed R.’)

Students will learn that unlike languages which have five vowel phonemes which are transcribed as are the Latin vowels, the five English vowel letters have at least two pronunciations, that used in their names, i.e., E/i:/, A/ei/, U/ju:/, O/ou/, and I/ai/ (these vowels are called Alphabet Sounds in this system), and the associated so-called short vowels, i.e., e+e/æ/, a+c/æ/, u+c/ʌ/, o+c/o/ and i/ɪ/ (these vowels are called Basic Sounds in this system).
2) Instruction in SSH Vowel Numbering System

To firmly fix the vowel phonemes and provide a ready mnemonic device for recall the instruction will introduce the numbering system for the English vowel phonemes initiated by Michael West and developed by Robert L. Allen, and finally further improved and refined by Paul V Griesy, the developer of Sound Spelling Harmony system.* The numbers used in the system are from 0 to 9, or two digit combinations of those numbers as indicated below:

The reason that we use Arabic numbers to represent vowel sounds is that the IPA includes lots of difficult and confusing symbols which is not familiar to the beginners of English.

<table>
<thead>
<tr>
<th>Basic Sounds</th>
<th>Alphabet Sounds</th>
<th>Special Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>SSH</td>
<td>IPA</td>
<td>SSH</td>
</tr>
<tr>
<td>0</td>
<td>[a]</td>
<td>86</td>
</tr>
<tr>
<td>1</td>
<td>[ʌ] [ə]</td>
<td>(y)66</td>
</tr>
<tr>
<td>3</td>
<td>[i] [ɪ]</td>
<td>[i:]</td>
</tr>
<tr>
<td>4</td>
<td>[e] [ɛ]</td>
<td>[æ]</td>
</tr>
<tr>
<td>5</td>
<td>[æ]</td>
<td>[ə:r][ə]</td>
</tr>
</tbody>
</table>

1 Both [ʌ] and [ə] are No. 1 vowel sound. [ʌ] is used for stressed syllables and [ə] for unstressed syllables.
2 Both [ə:r] and [ər] are vowel sound. [ə:r] is used for stressed syllables and [ər] for unstressed syllables.
3 In Korea, [i] is used for No. 3 vowel sound, whereas some English dictionaries, such as Oxford and Longman dictionaries use [i] for No. 3 vowel sound and [i] for No. 2 vowel sound, which occurs when the final letter or letters of words -y, -i, or -ie is reduced from No. 02 vowel sound to No.2 vowel sound.
4. In Korea, [u] is used for No. 7 vowel sound, whereas Oxford dictionaries, etc use [u] for No. 7 vowel.
5. Both [e] and [ɛ] are No. 4 vowel sound. Before 1995, Oxford dictionaries used [ɛ] for such words as chair [ʧɛə], pear [pɛə], hair [hɛə], etc. to distinguish them from such No. 4 vowel sound as pen [pen], net [net], etc. indicated by [e].

The numbering system of SSH to indicate the 15 English vowel phonemes was most helpful and convenient to the students who have not learned the International Phonetic Alphabet [IPA]. We taught our students the numbering system of SSH in comparison with the IPA using the following vowel chart in which Korean vowel phonemes, SSH vowel numbers and IPA are inserted to enable students to compare English vowel phonemes with those of similar Korean vowels in terms of their tongue positions, tenseness, and laxness. In the following chart the dotted lines indicate boundaries of tense and lax vowels. Those vowels above the dotted lines are tense vowels and those below the dotted lines are lax vowels. As noted above, no Korean vowels are tense.
Since Korean students begin to learn the IPA in middle schools and it is used in all the English-Korean dictionaries and in those popular dictionaries that are published by many famous publishers in UK and USA, learning IPA is also necessary. Thanks to the SSH numbering system, our students easily learned and memorized IPA because they noticed IPA so frequently in the above SSH vowel chart in comparison with SSH numbers, IPA and their similar vowel letters.

After students master both the IPA and SSH Vowel Numbers, we use the following simplified chart showing only SSH vowel numbers and their similar Korean vowel letters

* The numbering system for the fifteen vowel phonemes of English was developed by the late Robert L. Allen, professor of Columbia University, Teachers College. Permission to use this system was granted to Professor Paul V. Grisy, the author of the book Sound Spelling Harmony, by Professor Allen in 1982, shortly before his death. The numbering system is most carefully denoted in Allen, Robert L., Virginia French Allen, and Margaret Shute, English Sounds and their Spellings (New York: Thomas Y. Crowell Co., 1966).

As explained before, SSH system assigns a number to each vowel sound in such a way that each number represents each tongue position of the corresponding vowel sound. Furthermore, the SSH vowel chart indicates the tenseness and laxness of the 15 English vowel phonemes by using dotted lines.
This method of recall makes it much easier for the beginners to learn and for the teachers to teach and correct the pronunciations and spellings of English words. For example, if students spell the word “pan” as “pen,” teachers just point out that the correct word is No. 5 vowel sound instead of writing the right word on the blackboard or spelling it out orally like “p-a-n.” If students pronounce the words “bin” as “bean,” and “pull” as “pool” in a way that similar Korean tense vowels are pronounced, teachers can easily correct them by simply pointing out that those words are below the dotted line while showing them the positions of the No. 3 and No. 7 vowels on the SSH vowel chart.

The SSH numbering system starts with Low-central vowel No. 0. The No. 0 represents the lowest tongue position, the shape of the mouth when this vowel sound is articulated as a basic sound when this letter is in a closed syllable, and the shape of the letter ‘O’. Starting from No. 0 sound, the numbers representing vowels go up as the tongue position goes up as shown in the vowel chart above, i.e., from 1, R /a:r, a:/ [called “reversed R” signifying the ending sound of the letter R] and then High-front tense vowel 22 [doubled number called two-two; double digit numbers represent tense vowel]. After 22 sound vowel numbers go up as the tongue positions are lowered, i.e. from 22 → 3 → 42 → 4 → 5, and then the numbering system proceeds to High-back round tense vowel 66/y66. In the back rounded vowels, the numbers go up progressively to 7 → 86 → 99. For the diphthongs, No. 92 is created by combining No. 99 with No. 22, and No. 02 is created by combining No. 0 with No. 22, and No. 06 is created by combining No. 0 with No. 66. It is very convenient to use the vowel chart which shows the vowel numbers that implies the tongue position of each vowel. When students mispronounce vowels, teachers can easily correct their pronunciation by telling them vowel numbers while pointing to the vowel's tongue position on the vowel chart. For example, when a student writes down “bean” for the word “bin,” his teacher will tell him that the correct word has No. 3 vowel sound.

In teaching the correct English vowel phonemes, especially those which sound similar to Korean students, such as No. 22 /i:/, No. 2/1 and No. 3/i:/; No. (y)66 /ju:; u/ and No. 7/u/, etc., the pronunciation practice of the following minimal pairs will be of great help.

   a. tense vowels vs lax vowels:
   b. comparison of the length in vowel pronunciation:

2. Higher Mid-central tense vowel /a;r/ /ær/ [Я] versus Lower Mid-central lax vowel /ʌ/ [1]:
   a. tense vowels vs lax vowels:
   b. comparison of the length in vowel pronunciation:

3. High—back rounded tense vowel /u:/[66] and /ju:/[y66] versus Lower high-back rounded lax vowel /u/[7/y7]:
   a. tense vowels vs lax vowels:
   b. comparison of the length in vowel pronunciation:

In Korean, there is only one High—back rounded tense vowel /T/ and /T/ similar to English vowel sounds /u/[66] and /ju:/[y66] whereas English has two high back rounded vowels, i.e. High—back rounded tense vowel /u:/[66] and /ju:/[y66] and Lower high-back rounded lax vowel /u/[7/y7]. It is difficult for Korean students to distinguish the two minimal pairs listed
   a. No. 4 vowel /e/ vs No. 5 vowel /æ/:
   b. comparison of the length in vowel pronunciation:

5. Lower Mid-central lax vowel /a/ [1] versus Low-central lax vowel /a/ [0]:
   a. No. 0 vowel /a/ vs No. 1 vowel /a/:

6. Higher Mid-central tense vowel /a:r/ [ar/]/ versus Higher low-back round tense vowel /a:/ [99]:
   sport[Я] work[Я] walk[99]   worm[Я] warm[99]

   stalk[99] stole[86] stall[99] woke[86] walk[99]

In addition, we use Korean vowel letters which sound similar to those of English to help our students for their recall of the correct tongue position and tenseness of the English vowel phonemes by adding upward (↑), downward (↓) and leftward (←) arrows and colon (:) next to Korean vowel letters. This is to suggest that the similar English vowels are a little higher or lower in their tongue positions, and they are tense if colons(;) are added. Here are some examples:

```
bean/22/ "빈:↑/  bin/3/ "빈↓/
City/3-2/ "시스↓티/
```

Note: To indicate voiced sounds, we added a double quotation mark (" ) before the consonant letters where no similar Korean voiced vowel letters are available although the same letters are pronounced as voiced sounds when they come between vowel letters as in "가"방. Such a method of transcription of the English word "bin" to the Korean word "<"번> is borrowed from the Japanese word of indicating voiced consonant letters by adding the symbol "<" to voiceless consonant letters, i.e., "<" is voiceless "<" is voiced.

```
Pan/5/ "팬↓/  pen/4/ " пен↓/
Pane/42/ "페인/
Pull/7/ " 폴↓/
Pool/66/ "풀:↑/  Pearl/Я/ "펄:←/
Full/7/ "풀:↑/  Fool/66/ "풀:↑/
```
Note: To indicate English consonant sound /f/ which is not present in Korean, we added a small circle (º) before the Korean consonant letter ‘ㅍ’ at the upper left corner as in fan as [fan]. Such method of transcription of the English word ‘fan’ to the Korean word [팬] is borrowed from the Chinese way of transcription.

3) Instruction in Consonant Phonemes of English

This section seeks to clarify distinctions among the 25 English consonant phonemes and their associated letters or digraphs. In this instruction the consonant phonemes are divided into sub-groups according to whether the phoneme appears in the native language or is found only in English. Key words are chosen from the native language or words borrowed into the native language from English to reinforce each consonant phoneme.

SHH Phonemic Symbols of the Consonant Phonemes

<table>
<thead>
<tr>
<th>SSH</th>
<th>IPA</th>
<th>SSH</th>
<th>IPA</th>
<th>SSH</th>
<th>IPA</th>
<th>SSH</th>
<th>IPA</th>
</tr>
</thead>
<tbody>
<tr>
<td>b</td>
<td>[b]</td>
<td>l</td>
<td>[l]</td>
<td>t</td>
<td>[t]</td>
<td>sh</td>
<td>[ʃ]</td>
</tr>
<tr>
<td>d</td>
<td>[d]</td>
<td>m</td>
<td>[m]</td>
<td>v</td>
<td>[v]</td>
<td>th</td>
<td>[θ]</td>
</tr>
<tr>
<td>f</td>
<td>[f]</td>
<td>n</td>
<td>[n]</td>
<td>w</td>
<td>[w]</td>
<td>th</td>
<td>[ð]</td>
</tr>
<tr>
<td>g</td>
<td>[g]</td>
<td>p</td>
<td>[p]</td>
<td>y²</td>
<td>[j]</td>
<td>wh</td>
<td>[hw]</td>
</tr>
<tr>
<td>h</td>
<td>[h]</td>
<td>r</td>
<td>[r]</td>
<td>z</td>
<td>[z]</td>
<td>ch</td>
<td>[tf]</td>
</tr>
<tr>
<td>J²</td>
<td>[dʒ]</td>
<td>s</td>
<td>[s]</td>
<td>ng</td>
<td>[ŋ]</td>
<td>zh</td>
<td>[ʒ]</td>
</tr>
<tr>
<td>k</td>
<td>[k]</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

Asterisk (*) indicates a special note because the symbols used by SSSH and IPA is significantly different.

As shown above, SSH uses the alphabet letters to indicate consonant sounds. It is to be noted that SSH uses the letter ‘j’ instead of IPA [dʒ] and the letter ‘y’ instead of IPA [ʃ]. To indicate voiced sound [ð], SSH uses the letter v underneath “th” whereas voiceless sound [θ] is
indicated by ‘th.’ If you have difficulty in typing it, you may use an underline beneath ‘th.’

When we teach the consonant phonemes, we employ the **sound subtraction system** called *Phonics Math*: \( /b/ - /I/ = /b/ \). To help students to learn these consonant phonemes we also use **key words** created from similar **Korean words** containing the corresponding consonant sounds.

Let me explain how I taught my students **25 consonant phonemes** of English by using the **key words** created to teach them by using similar **Korean consonant phonemes** as an **intermediary medium**.

**1. The Korean Key Words for 25 English Consonant Phonemes**

**A. 15 English consonant phonemes** that are similar to those of Korean are shown below with their **key words**. (The consonant letters listed here indicate one phoneme except for the letters \( c \) and \( g \) which represent 2 phonemes).

---

1. \( /l/ \) - 符 = [b]
2. \( /d/ \) - 마 = [d]
3. \( /g/ \) - 마 = [g]
4. \( /j/ \) - 시 = [j]
5. \( /k/ \) - 今 = [k]
6. \( /l/ \) - 밑 = [l]
7. \( /m/ \) - 차 = [m]
8. \( /n/ \) - 비 = [n]
9. \( /p/ \) - 리 = [p]
10. \( /t/ \) - 지 = [t]
11. \( /r/ \) - 도 = [r]
12. \( /s/ \) - 빠 = [s]
13. \( /t/ \) - 조 = [t]
14. \( /w/ \) - 월 = [w]
15. \( /y/ \) - 아수 = [y]

---
The Korean consonant letters ‘ㅂ’, ‘ㄷ’, ‘ㅌ’, and ‘ㅅ’ are not voiced. They are close to the slightly aspirated voiceless sounds. However, they change to voiced sounds when they are placed between voiced vowels due to assimilation. In order to create the voiced-sound key words for teaching the English voiced consonant phonemes /b/, /d/, /g/, and /j/, we added a double quotation mark (" ) before the consonant letters which are not pronounced as voiced vowels when they do not come between voiced vowels. For example, ‘ㅂ’ which is present in the word ‘바다’ is not a voiced vowel, but ‘ㅂ’ embedded in the word ‘가방’ is voiced because ‘ㅂ’ is placed between two Korean vowels ‘ㅏ’ and ‘ㅏ’.

Therefore, we chose /ㅂ / in the word ‘가방’ for the key word for /b/ and indicate this key word for this purpose as ‘가방’ instead of ‘가방’ to make students note that a newly coined symbol /ㅂ/ represents the consonant phoneme /b/. Such a method of transcription for the English word “bin” to “빈” is borrowed from the Japanese system of indicating voiced consonant letters by adding the symbol ‘<’ to voiceless consonant letters. For example, the voiceless consonant letter ‘<ㅂ’ changes to the voiced consonant letter ‘<ㅂ’ when the symbol ‘<’ is added. To show an example in words, the ‘<ㅂ’ in ‘< kính’ “hara” (belly) is voiceless and ‘<ㅂ’ in ‘< 배’ (“bara” = rose ) is voiced.

In the same way, we selected the key words for the consonant phoneme, /d/, /g/, /c/, /p/, /t/. The rest of the E group consonant phonemes /v/ and /z/ will be treated separately together with one of the No. 4 group consonant phoneme /l/ because these phonemes are not present in Korea. The key words for these phones will be created from the foreign loan words.

The Korean word ‘<바다’ is chosen as the key word for representing the English consonant phoneme /d/ because the Korean consonant letter ‘<다’ comes between the two Korean vowel letters ‘ㅏ’ and ‘ㅏ’ and therefore, assimilates into a vowel sound. Using this device, when we transcribe English words which begins with the letter ‘d,’ we use ‘<ㅂ’ for /d/. For example the word ‘dam’ is transcribed into ‘< рем’.

In the same way, the consonant letter ‘< 바’ of ‘<바람’ and ‘< 바람’ is transcribed into ‘< 바람’.
C + other than e, i, y [c=/k/]  

C for cent, city, cyst, circus, science, scythe

Note: 1. [kj] represents the English voiceless consonant phoneme /s/ which is similar to the consonant sound between Korean consonants / closeButton/ and /m/, so [kj] is used for the phonetic symbol of this intermediary consonant sound.

2. /ŋ/ represents the English voiced consonant phoneme th /ŋ/.

C + other than e, i, y [c=/k/]  

G+ other than e, i, y  

G for gem, gist, gym, gentleman, gymnasium, gyroscope

In SSH, we use // instead of the IPA symbol of [dʒ]. When the letter g is preceded by the vowel letters e, i, y the letter g is usually pronounced as //j//, as in gentle, gym, gymnastics, gyroscope with a very few exceptions, such as get, girl, gird, etc. When the letter g is preceded by the letters other than e, i, y or it comes at the end of a word, the letter g is pronounced as //g//, as in game, got, gum, gun, glass, green, egg, leg etc. Unlike the consonant letter C, the e, i, y rule for G has some exceptions: get, girl, gird, gynecology.
Consonant Letters in which No. 4 vowel sound is embedded:

\[ \text{F L M N S X} \]

Note: The consonant phone /l/ will be treated separately together with /v/ and /z/. The consonant phoneme /x/ is also separately explained.

\[ \text{L for lap/램/let/มากๆ/lip/ительн/lot/뤼들/} \]
\[ \text{luck/눅/별/ier/ler/} \]

Note: The Korean consonant letter 'ㄹ' sounds like the English phoneme /l/ when it comes at the beginning of the word, but when it comes after the vowel in the word combination form of vowel + vowels. 'ㄹ' sounds like the English phoneme /l/. Therefore, initial letter of the word 'ㄹ' is transcribed as 'ㄹ', but the final letter 'ㄹ' or 'ㄹ' of English words is transcribed as 'ㄹ'.
The consonant letters in which vowel No. 42 is embedded:

H J K

H for ham/햄 / hen/켄 / him/힘 / hot/핫 / hut/핫 / hurt/허트

Note: The consonant phoneme of the letter ‘J’ is the same as the consonant phoneme of the consonant letter ‘G’ when it is followed by the vowel letters e, i, or y, and the consonant phoneme of the letter ‘K’ is the same as the consonant phoneme of the consonant letter ‘C’ when it is not followed by the vowel letters e, i, or y.

W

W for wag/왜 / well/웰 / wit /월 / wodge/왜 / wuzzy/워

W for wak/왜 / yes/예 / yuck/역

B. Because there is no Korean consonant sound equivalent to the English consonant /ʊ/, /ʌ/ and /ɪ/, we use the English words fish, violin and zebra as the key word for the consonant phoneme /ʊ/, /ʌ/ and /ɪ/.

fish

F for fan/판 / fen/팬 / fin/핀 / fun/푼 / fond/푼 / fern/푼

Note: /v/ represents voiced labiodental fricative sound /v/ whereas /v/ represents voiced bilabial stop sound /b/.

Z for zap/"샛ʃ / zen/"션ʃ / zip/" sitiʃ / zoo/"수ʃ / sunk/"성ʃ

Note: /z/ represents voiced alveolar fricative sound /z/.

C. Consonant phonemes of digraph

ʃ for shall/샤 / shell/ 샤 / ship/ 샤 / shop/ 샤 / shut/ 샤 / shirt/ 샤 =/ʃ/

The consonant phoneme /zh/ is present in the final syllable of the word television. The consonant phoneme /zh/ is voiced in contrast to the voiceless consonant phoneme /sh/.

Note: When –ion and –sure is preceded by vowel sounds, they are pronounced /zh/[3] and when they are preceded by consonant sounds, they are pronounced /sh/[ʃ].

Example:

/zh/[3]: vision, division, provision, revision, adhesion, precision, collision, derision, television, explosion, persuasion, decision, evasion, invasion, pervasion, occasion, pleasure, measure, leisure, treasure, usual, casual, azure, glazier, camouflage, prestige, rouge, regime, sabotage
/sh/ [ʃ]: mansion, tension, expansion compulsion, repulsion, pension, passion, compassion, accession succession, recession, mission, session, possession admission, commission, ensure, censure, assure, pressure, sure, insure

/ʃ/ for chat/챗 ↓ check/책 ↓ chin/친 ↓ chop/舍不得
chuck/очек/ church/처 둥 ← Autos/ catch/Caught/ etch/에 ↓ stitch/스틸 ↓ botch/"발 ↓ clutch/클럽 ↓ 쯔/

Note: The consonant phoneme /ʃ/ [ʃ] has two spelling patterns, i.e. –ch and –tch. When the consonant phoneme /ʃ/ is preceded by a basic sound, it is spelled with –tch as in match, stretch, pitch, notch, crutch, etc. Otherwise, it is spelled with –ch.

/ng/ for hang/행 ↓ /length/ㄝ 력 ↓ /ring/링 ↓ /song/송 ↓ /sung/_song↓/

Thank you!

thank – ank = /th/ [θ]

/th/ [θ] for thank/ рассказыва ↓ / theft/θé デ ↓ / thin/θ틴 ↓
throb/θ 뿌 ↓ / thumb/θ텀 ↓ / third/θ더 ↓ /"south/서 ↓ north/노

Note: When the digraph ‘th’ comes in the initial or final position of a content word, it is pronounced as a voiceless consonant phoneme /th/ [θ].

that – at = /th/ [θ]

that – at = /th/ [θ]

this – is = /th/ [θ]
/th/ [θ] for that / 그 / then / 그 / this / 이 / those / 그 / thus / 그 / scythe / 썰 / mother / 머 / southern / 남 / D. Two letters represents two sounds

화산 - 산 = /hw/

/hw/ for what / 활 / when / 훌 / which / 훌 / whom / 훌 / whom / why / 화

2. Other consonant phonemes

A. Two consonant sounds represented by one letter

\( g + e, i, \text{ or } y \)

\( g \) + the letters other than e, i, or y

\( g \) - 바가지 - 바 / 지 = /g/

\( c + e, i, \text{ or } y \)

\( c \) + the letters other than e, i, or y

\( c \) + the letters other than e, i, or y
B. Another spelling pattern of the consonant phoneme /f/  

Ph/f/: phone photograph phrase physics philosophy pamphlet topograph graphite

C. Consonant phoneme of the letter x  
X/ks/: box fox fix mix six next text context

D. Combined sound of qu  
Qu/kw/: queen question quantity quality

4) Instruction in Penmanship

To reinforce the vowel and consonant phonemes present in the names of the letters of the alphabet, beginning students should be instructed in the writing system as well. In my experimental class, many students confused the lower case letters b and d, q and p. So I introduced the writing practice shown below:
First, ask the student to write the letter c and then add downward stroke to the letter c to form a. After that ask the students to write the letter c again and then add a downward stroke to the letter c with two-row length above the baseline to form the letter d, and then to add two-row downward stroke to the letter c to form the letter q below the baseline. After they practised the letters c, a, d, q, students were asked to practice b and p. These two letters start with the downward strokes first and then add reversed form of c. A downward stroke is added to the letter b two rows above the baseline whereas to the letter p a downward stroke is added two rows below the base line.

Although Korean language does not have cursive writing, as this aspect is similar to English, Korean students can be taught from analogy to the Korean way of letter combination to form words. For example: the consonant letters ㄱ, ㄴ, ㄷ, ㅁ[keeyuck, niun, digut, mium] are pronounced as their letter names, but when they are combined with vowel letters, the letters are not pronounced as their letter names but their letter sounds,i.e. their consonant phonemes: 간담(肝膽) [kandam].

5) Vowel Phonemes and their Associated Spellings

a) Basic Sounds

Upon completion of instruction in the alphabet, penmanship, and the consonant phonemes, the 15 vowel phonemes are taught. The vowel phonemes are divided into three sub–groups of five vowels each. The first group, called "basic" vowels, are the so–called short vowels
/a/[No. 0], /ʌ /[No. 1], /i/[No. 3], /ɛ/[No. 4], and /æ/[No. 5]. The rationale for teaching these vowel phonemes first is that they are generally transcribed by one vowel letter followed by a consonant in a closed syllable or one syllable word.

The No. 0 Sound  

| o + c | or c+o+c |

1). odd cod God nod pod rod prod trod sod bond blond fond pond ox box fox phlox pox ox opt bot blot cot clot dot got jot hot lot slot knot not snot pot plot spot font bob blob cob job knob lob mob nob snob rob sob slob throb bog cog clog fog flog frog grog hog jog log bop chop cop
clop crop drop fop lop flop plop prop hop mop pop shop top stop pomp romp stomp whomp broth cloth froth moth sloth wroth bosh frosh gosh josh slosh bomb prom Tom on Bonn con don John doll loll
2). c+o+ck: lock block clock flock bock cock dock hock jock pock rock
crock frock mock smock sock shock stock chock nock knock

c+o+tch: botch blotch notch scotch crotch splotch

c+o+dge: dodge Hodge lodge

The No. 1 Sound  u + c   or   c + u + c  
bus   cup   cut   nut   gum   gun   run   plug   drum   jump

The No. 3 Sound  
Ink   king   milk   pig   pin   swim   twin   bridge   kiss   gym

The No. 4 Sound  
egg   bed   bell   cent   pen   desk   jet   pet   dress   sketch

The No. 5 Sound  
body   fan   ham   jam   hand   pal   cap   cat   map   black

Summary of the Basic Sounds

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td>pock</td>
<td>puck</td>
<td>pick</td>
<td>peck</td>
<td>pack</td>
</tr>
<tr>
<td>bot</td>
<td>but</td>
<td>bit</td>
<td>bet</td>
<td>bat</td>
</tr>
<tr>
<td>Don</td>
<td>dun</td>
<td>din</td>
<td>den</td>
<td>Dan</td>
</tr>
<tr>
<td>pot</td>
<td>putt</td>
<td>pit</td>
<td>pet</td>
<td>pat</td>
</tr>
<tr>
<td>Bonn</td>
<td>bun</td>
<td>bin</td>
<td>Ben</td>
<td>ban</td>
</tr>
</tbody>
</table>

b) Alphabet name Sounds

1) The Alphabet Sounds Pronounced in  Vertical Order

<table>
<thead>
<tr>
<th>No.</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E-1</th>
<th>E-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>86</td>
<td>go</td>
<td>rope</td>
<td>hoe</td>
<td>goat</td>
<td>snow</td>
<td>cold volt</td>
</tr>
<tr>
<td>66</td>
<td>flu</td>
<td>flute</td>
<td>blue</td>
<td>fruit</td>
<td>moon</td>
<td>crew lewd</td>
</tr>
<tr>
<td>y/66</td>
<td>gnu</td>
<td>cute</td>
<td>cue</td>
<td>nuisance</td>
<td></td>
<td>few hew</td>
</tr>
<tr>
<td>02</td>
<td>pi</td>
<td>time</td>
<td>pie</td>
<td>___</td>
<td>high light</td>
<td>kind blinds</td>
</tr>
<tr>
<td></td>
<td>by</td>
<td>type</td>
<td>bye</td>
<td>___</td>
<td>___</td>
<td>___</td>
</tr>
<tr>
<td>22</td>
<td>me</td>
<td>gene</td>
<td>bee</td>
<td>tea</td>
<td>field brief</td>
<td></td>
</tr>
<tr>
<td></td>
<td>been</td>
<td>team</td>
<td>piece</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>42</td>
<td>___</td>
<td>game</td>
<td>Mae</td>
<td>rain</td>
<td>rein</td>
<td>eight</td>
</tr>
<tr>
<td></td>
<td></td>
<td>say</td>
<td>they</td>
<td>whey</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The second group of vowels is the so-called long vowels which are identical to the names of the vowel letters O [No.86], U[No.(y)66], I[No.02], E[No.22], and A[No.42]. These phonemes although thoroughly practiced when the alphabet was studied initially are now reintroduced as the great variety of spellings utilized in transcribing them are taught. In order to aid the students in recalling these various spellings for the "alphabet name" sounds, care given to recognize the harmonic relationships between the transcriptions, e.g., O[no, ho], U[flu, gnu], I(Y), [pi, by], or E[he] in final position in monosyllable words; O[note, hoe], U[flute, rue, cute, cue], I(Y)[pine, pie, byte, bye], E[gene, bee, green], A[cake, Mae] plus the "magic E"; or these vowels (or semi-vowel) plus an additional vowel or semi-vowel, OA[boat], UI[fruit, nuisance], EA[pea, peach], A[rain], OW[row, now], EW[grew, few], etc.

2) The Alphabet Sounds Pronounced in horizontal Order

No. 86 Row

A: go no ho lo so fro floe pro Jo
B: home hose note rope phone smoke stove zone
C: doe toe hoe foe roe floe Joe sloe woe
D: goal loan road boat coat soap coach roach toast
E-1: bow blow glow grow know snow sow tow throw bowl
E-2 old bold cold fold gold hold mold scold sold told bolt colt dolt jolt volt

No. 66/(y)66 Row

A: flu gnu Hugh
B: June lute flute brute nude tube cube cute mute
C: blue clue glue rue sue true cue hue due
D: fruit juice suit brute cruise sluice nuisance
E-1: chew lewd blew crew screw few hew new new stew
E-2: cool pool tool moon room zoom spoon school boot booth hoop loop scoop tooth

No. 02 Row

A: pi by my fry sky sly sly spy try ply pry
B: fine line nine time shine wine swine bike dice kite
pile pipe rise wise fire tire wire hire dire ire
mire size ice rice spice dive drive stripe chime dime
prime prize white knife wife style type rhyme thyme zyme
C: die lie pie tie bye dye rye
E1: high fight light night right tights
E2: blind kind mind wind blinds

No. 22 Row

A: be he she me we the
B: Eve eke eve cede gene mete Pete scene theme
C: bee tree fee feet heel peel green keen queen
    screen jeep cheek meek seek week deem seem teem
D: pea sea tea seal beam team cream steam beach
    peach beat heat meat neat seat treat beak peak leak
E: brief chief field priest piece niece field grief thief wield

No. 42 Row
B: game page whale base cake case lace tape skate
C: Mae Rae bae cae tae sae brae blae fae
D: mail paint rain train chain May way play spray
E: eight veil vein freight weigh hey prey they fey

Summary of the Alphabet Sounds
so sue sigh sea say
Poe poo pie pea pay
spoke spook spike speak spake
foal fool file feel fail
pole pool pile peel pale

Key words for Basic Sounds and Alphabetic Sounds

<table>
<thead>
<tr>
<th>Basic Sounds</th>
<th>Alphabet Sounds</th>
</tr>
</thead>
<tbody>
<tr>
<td>No.</td>
<td>key words</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>0</td>
<td>odd lot</td>
</tr>
<tr>
<td>1</td>
<td>up run</td>
</tr>
<tr>
<td></td>
<td>us cut</td>
</tr>
<tr>
<td>3</td>
<td>in pin</td>
</tr>
<tr>
<td></td>
<td>gym myth</td>
</tr>
<tr>
<td>4</td>
<td>end hen</td>
</tr>
</tbody>
</table>

30
1. If a monosyllable word ends in the letter 'a,' it is pronounced as No. 0 sound instead of No. 42 sound: spa schwa Fa La
2. The alphabet sound of the letter U is No. 66/u:/ sound when it is preceded by the letter J R Ch S L. If the letter U is preceded by the letters other than J R Ch S L, the letter U is pronounced as No. y66 sound [ju:].
3. Words ending in -ae are primarily of Scottish origin. The words noted above mean: Mae and Rae are girls' first names. hae = have; tae = to.

### c) Special Sounds

Finally the remaining five vowel phonemes, /ɔ/ [No. 7: good, full], /ɔː/ [No. 99: pause, law, bald, walk, long, boss, cost, soft, thought], /ɔi/ [No. 92: oil, toy], /au/ [No. 06: round, town], and /ɜː/ [R: bird, perch, turn], and their associated spellings are taught. These five remaining vowel phonemes are called "special" sounds because of their similarity to other vowels either in pronunciation or transcription, e.g., the OO in "look" [No.7] as opposed to the OO in "pool[No.66]," or the A in "salt" [No.99] as opposed to the A in "sat[No.5]."

### 3. Special Sounds

#### No. 7 Sound

good hood wood foot soot book cook look hook brook took bull full pull push would should could wolf wool

#### No. 99 Sound

gauze Paul pause sauce straw shawl hawk ball hall mall tall walk talk chalk stalk salt malt bald scald long song strong loft soft cost boss cross thought bought

#### No. 92 Sound

oil coil coin foil point noise voice boy toy soy Troy Hoyt Lloyd Boyle

#### No. 06 Sound

house mouse mouth blouse round scout cow gown town brown crown clown wow
Я Sound (Reversed R Sound)

jerk  perch  butter  dancer  singer  sister  teacher  bird  girl  first  third
    skirt  shirt  birthday
fur   curl   curve  turn   nurse  church

Summary of the Special Sounds

full    fall    foil    fowl    furl    bull    bawl    boil    bowel
burl   look   took   shook  pause   fawn   talk   broil   choice
soy    flour   shout  crowd   verb   chirp   burn
6) Syllabication

With the completion of instruction in the vowels of English students will have mastered the 40 phonemes of the English Language as well as their most frequent spellings in one syllable words. At this juncture a second and more advanced level of instruction in the principles of phonics is begun. Since the greater part of the instruction up to this point has dealt with monosyllable words it is essential that students learn how to syllabicate polysyllabic words. Students are therefore taught six common rules for syllabication. An additional seven lesser rules are indicated in the Teacher's Manual, and can be introduced when examples of those rules appear in the students' assigned textbooks. These should be used as needed when words appear that cannot be syllabicated according to basic rules.

7) Vowel Lateralization

The phoneme /r/ when following stressed vowels influences the preceding vowel phonemes in such a way that their pronunciation changes to the nearest phoneme as shown in the following chart and table, i.e., /i/[No. 22] lateralizes (migrates) to /ɪ/[No. 3], /eɪ/[No. 42] migrates to /ɛ/[No. 41], /æ/[No. 5] to /ɑ/[No. 0], /ɑ/[No. 0] to /ɔ/[No. 99], /uː/[No.(y)66] to /u/[No. 7], and /ou/[No. 86] to /ɔː/[No. 99].
Lateralization | Alphabet Sounds Column B to neighboring other sounds | Alphabet Sound Column C to neighboring other sounds | Alphabet Sound Column D to neighboring other sounds | Alphabet Sound Column E to neighboring other sounds
---|---|---|---|---
No.22
↓
No.3 | mete
↓
mere | beet
↓
beer | heat
↓
hear | piece
↓
pier

No. 42
↓
No. 4 | cake
↓
care | chain
↓
chair | they
↓
they're their

No.(y)6
↓
No.(y)7 | lute
cute
↓
lure
cure | nuisance
↓
Muir | pool
↓
pool

No. 86
↓
No. 99 | cope
↓
core | boat
↓
boar | Basic Sound
No. 0 to Special Sound No. 99 | pot
↓
port

Basic Sound
No. 5 to Basic Sound
No. 0 | cat
↓
car | Basic Sound
No. 0 to Special Sound No. 99 | pot
↓
port

Examples of this phenomenon are as follows:

22/i:/ to 3/i/:  
we → we're,  
mete → mere,  
bee or beet → beer,  
team → tear (n.),  
piece → pier

42/eɪ/ to 4/e/:

cake → care,  
fail → fair,  
they → they're/ their/ there

5/æ/ to 0/ɑ/:

bat → bar,  
fat → far,  
cat → car

0/ɑ/ to 99/ɔ/:  
odd → or,  
fox → for,  
shot → short

66/u:/ to 7/u/:  
cute → cure,  
moon → moor,  
pool → poor,  
endue → endure,  
allude → allure

86/ou/ to 99/ɔ/:  
boat → boar,  
road → roar,  
choke → chore,  
scope → score,  
woke → wore

If /r/ follows a pure diphthong, i.e., /ai/, /au/, /ɔi/, the /r/ has no influence on the preceding vowel, 

e.g., the vowel in "fine" and "fire" remain the same; the vowel in "out" and "our" remain the same;  
and the vowel in "coin" and "coir" remain the same.

8) **Vowel Reduction in Unstressed Syllables**

Perhaps the most significant aspect of English pronunciation is the phenomenon of vowel reduction in unstressed syllables. All vowels reduce or migrate to one of three phonemes in unstressed position. Those phonemes are the schwa /a/, the high front lax vowel /i/, or the
retroflexed vowel /ə/. The question raised by students of EFL is which reduced vowel should be used.

Once students have mastered the 15 vowel phonemes and their associated spellings they are easily able to recognize to which reduced vowel each vowel will migrate in unstressed position. At the conclusion of the study, a series of rules for word stress is introduced, but at this juncture the instructor merely indicates which syllable should be stressed. Students then reduce the vowel in the unstressed syllable to the appropriate vowel. Students therefore are able to draw a distinction between the pronunciation of the stressed vowel in words such as “chief” and the unstressed vowel in “mischief,” “bit,” and “rabbit,” “mate and climate,” “pet and trumpet,” “man and human,” “rot and carrot,” “cue” and “calculate,” “full” and “careful,” “rope” and “Europe,” “author” and “authority,” “vice” and “service,” “poise and porpoise,” “mouth” and “Portsmouth,” “mar” and “grammar,” or “fort” and “effort.” This is an essential skill in mastering the pronunciation and spelling of the English language in which vowel reduction is perhaps its most distinctive characteristic. This skill is especially important for students whose native language is syllable-stressed rather than time-stressed and in which vowels retain their pronunciation in all contexts, e.g., Chinese, Japanese, Korean.

In teaching vowel reduction, we use the following chart:

A simple general rule for vowel reduction is that all vowels, with the exception of /ə/, reduce or migrate to the schwa (mid central lax vowel) in unstressed syllables. Note the following examples:

22/i:/→1/a/: speed /spiːd/ meter /ˈmiːt/ → speedometer /ˈspiːdamətər/

chief→mischief /ˈmistʃəf/  

3/i:/→1/a/:  

3/i:/→1/a/:  

42/ei/→1/a/:  

42/ei/→1/a/:  

4/e/→1/a/:  

4/e/→1/a/:  

5/æ/→1/a/:  

5/æ/→1/a/:  

66/u:/→1/a/:  

66/u:/→1/a/:  

7/u:/→1/a/:  

7/u:/→1/a/:  

86/ou/→1/a/:  

86/ou/→1/a/:
Interestingly if the stressed vowel is one of the following front vowels /iː/, /ɪ/, /ei/, /e/, or a fronting diphthong /ai/ or /ɔi/, the vowel in the unstressed syllable will also reduce to /i/. Note the following examples:

22/iː→3/iː: speed /spiːd/ + meter /ˈmɛtər/ → speedometer /ˈspiːdəmətər/

chief → mischief /ˈmɪʃɪf/  
42/ei/→3/iː: mate /meɪt/ + climate /ˈklæmɪt/ → face /feɪs/ + surface /ˈsɜːfəs/  

gain /geɪn/ + bargain /ˈbɑːrɡɪn/ → trait /treɪt/ + portrait /ˈpɑːrtrɪt/  
4/e/→3/iː: pen /pɛn/ + open /ˈoʊpən/ → cent /sɛnt/ + decent /ˈdɛsɨnt/  

met /mɛt/ + helmet /ˈhɛlmɪt/ → let /lɛt/ + tablet /ˈtæblɪt/  
02/ai/→3/iː: site /saɪt/ + opposite /ˈɔpəsɪt/ → vice /vaɪs/ + service /ˈsɜːvɪs/  

rite /raɪt/ + favorite /ˈfeɪvərɪt/  
92/ɔi/→3/iː: toys /ˈtaɪz/ + tortoise /ˈtɔːrtəs/ + poise /ˈpaɪz/ + porpoise /ˈpɔːrpəs/  

If the consonant phoneme /r/ appears in an unstressed syllable, the vowel which precedes it reduces not to the schwa or the high front lax vowel, but rather to the vowel /ɚ/. The pronunciation of the vowel /ɚ/ is identical to the consonant /r/. Note the following examples:

0/ɑr/ → ʃ/ɔː/: mar /mɑːr/ → grammar /ˈɡræmər/  
yard /jɑːrd/ → vineyard /ˈvɪnɪəd/  
tar /tɑːr/ → tartar /ˈtɑːrtər/  
99/ɔr/ → ʃ/ɔː/: fort /fɔːrt/ → effort /ˈɛfərt/  
born /bɔːrn/ → stubborn /ˈstʌbən/  
board /bɔːrd/ → cupboard /ˈkʌbərd/  

9) Word Stress

We learned earlier when studying vowel reduction that the pronunciation of vowels in unstressed syllables migrates, weakens, or reduces to the Nos. 1 or 3 or ʃ Sound. What we did not learn at that time was how we are to know which syllables are stressed and which are unstressed. It is to this question that we now turn our attention.

To provide fuller details about these word stress rules, I quote below Chapter 17 of Paul V. Griesy’s unpublished manuscript used with his permission.

Here is the full text of Chapter 17 of his work entitled Syllable Stress:
The above illustration shows us that stressed syllables in English words are pronounced louder, longer, and on a higher pitch. There are other syllables which although stressed, are not so strongly stressed. There are yet other syllables which seem not to be stressed or only slightly stressed. We divide these syllable stresses into three kinds, i.e., primary stress, secondary stress, and weak or unstressed.¹

We indicate primary stress by using the supersegmental [ˈ] for primary stress, [ˈ] for secondary stress, and a lower case "x" for unstressed syllables. If we were to attach stresses in place of the children in the above picture, they would be marked like this:

```
\ , x \ , x \ , \ , \x
```

Examples of words in which these stress patterns occur are:

- Sèptémber
- internátional
- Novémbér
- consonántal
- résponsíble
- impóssible

Rules for determining on which syllable these stresses are placed are not always clear, but we have surveyed a number of words and have made the following generalizations. In some words one or more of these stress rules operates simultaneously.

### Rules for Stress Placement

1) **Monosyllable** words are stressed if they are content words, i.e., nouns, verbs, adjectives, and adverbs. Function words normally are not stressed, so the vowels in function words can migrate to one (or two in the case of vowels with the numbers 2, 3, and 4 in their number codes) of the three reduced vowels, the Nos. 1, 3, or the ñ Sound. The following are some **monosyllabic function words** in which the vowels are normally reduced:

- a
- am
- an
- and
- are
- as
- at
- but
- by
- can
- could
- do
- does
- did
- for
- from
- had
- has
- have
- he
- her
- him
- his
- I
- if
- in
- is
- it
- its
- may
- might
- must
- me
- my
- of
- on
- or
- own
- shall
- she
- should
- so
- than
- that
- the
- their
- them
- then
- till
- to
- up
- us
- we
- was
- were
- will
- with
- would
- you
- your

Estimates vary, but these function words total between 25% and 30% of all that is spoken and written in English.

2) The majority of **two syllable content words** (approximately 75%) are stressed on the first syllable. The second syllable is unstressed (receives weak stress). Note the following examples:

**Nouns:**
- answer
- apple
- baby
- brother
- candy
- city
- dinner
- doctor
- eagle
- Europe
- father
- Friday
- garden
- giant
- human
- helper

¹ Although some textbooks indicate tertiary stress, we find that indicating primary, secondary, and weak stress is sufficient for the purpose of aiding students in pronouncing unfamiliar words.
Most two syllable verbs are stressed on the second syllable, but there are a few two syllable verbs that are stressed on the first syllable. Note the following:

- carry  enter  finish  follow  gather  happen  hurry  listen  marry  open  order  pardon  practice  promise  settle  suffer  travel  visit

3) Two syllable verbs are generally stressed on the second syllable, e.g., begin. The following configuration of vowels and consonants will in most instances assure that primary stress falls on the final syllable.

a)  \( \text{V} + \text{C} \). When the vowel in the second syllable is followed by two consonants, that syllable receives primary stress.

- accept  arrest  belong  bombard  collect  consult  correct  direct  exist  expect  protect  reflect  reform  report  reserve

b)  \( \text{V} + \text{C} + \text{E} \). When the vowel in the second syllable is followed by one consonant and the "magic E," primary stress falls on the second syllable.

- acquire  admire  arise  arrive  become  cajole  chastise  combine  compile  complete  compose  create  decide  declare  define  derive  describe  escape  excuse  explore  forgive  ignite  invite  mistake  narrate  obscure  prepare  restore  surprise  unite  vacate

c)  \( \text{V} + \text{V} + \text{(C)} \). When the vowel phoneme in the second syllable is composed of two vowel letters in final position, or when followed by a consonant(s), primary stress falls on the second syllable.

- agree  destroy  enjoy  employ  announce  believe  campaign  carouse  complain  increase  ordain  pronounce  receive  repair  review  surround

4) Two syllable homographs which function either as nouns or verbs, are stressed on the first syllable if they are nouns, and stressed on the second if they are verbs. Nouns often have secondary stress as well on the second syllable.

- accent  accented  address  address  conduct  conduct  compound  conflict  consort  content  content  contract  contract  contrast  contrast  convert  convert  concert  concert  convict  convict  descent  descent  decrease  decrease  export  export  exploit  exploit  incline  incline  increase  increase  insult  insult  insult  overflow

---

\[ \text{Locate} \] is an example of a word in which the primary stress can fall on either the first or the second syllable.
Words which can be either adjectives or verbs follow the same pattern, e.g., *perfect*, *perfect*.  

5) Compound nouns have primary stress on the first component and secondary stress on the second, e.g., *classroom*. With compound verbs the order is reversed, e.g., *understand*. Stress placement on compound words accords with the stress patterns the component parts have in isolation, e.g., *under* and *taker* when combined as a compound noun become *undertaker*.

6) Words in which doubled consonant letters appear, are generally stressed on the syllable before the doubled letters.

7) When the first syllable of a two syllable word has one vowel letter and the second has two vowels, primary stress often falls on the second syllable. Of course two syllable verbs are generally stressed on the second syllable.

---

3 There are some verbs in the above list in which the stress pattern is shifting from the verb pattern to the noun stress pattern, i.e., stress is being placed on the first syllable. Verbs in which primary stress can be given to either the first or the second syllable are: *accent*, *compound*, *refill*, and *survey*. Although some native speakers give primary stress to the first syllables of these verbs, we once again adopt a prescriptive approach, and assign primary stress to the second syllable, i.e., *accént*, *composé*, *réflé*, and *sévéri*.

4 Some exceptions to this pattern are: *afternoon*, *outsider*, *sidestep*.

5 This phenomenon may be caused by the normally unstressed vowels in the second syllables.
sublime serene severe

8) Polysyllable words composed of a prefix and a root (head) word are generally stressed on the second syllable. Any type of content word may have this characteristic. Note the variety of parts of speech in the following list.

adhere admit insert imbibe perceive retract redeem return rejoin transverse transcend preclude preplan procrastinate proclivity posterity postpone abrupt abduct avert depress descend despise depress descend disarm dismiss disprove emit secede secure select convene submerge amoral abnormal absurd illogical illegal illicit irrational misuse mistreat obstruct offend unwanted unhappy unique bilingual September septenary apology apostle extravaganse geology geography astronomy biology becalm educe eject endorse decipher embark embody explain precede prepare subtract upbuild 6

9) Suffixes (like prefixes) are rarely given primary stress.

Nouns: arrival refusal maintenance insurance confidence residence kingdom freedom neighborhood brotherhood friendship kinship camper swimmer teacher actress waitress apprentice cowardice justice socialism idealism pacifism optimist pianist humanist capacity simplicity humidity nationality loyalty safety liberty stadium medium premium government agreement equipment kindness sweetness splendor behavior decision television expansion vacation education station failure pressure mixture sympathy irony rivalry jewelry poetry constancy agency mercy

Adjectives: agreeable available comfortable terrible responsible possible logical several natural total official crucial essential specific scientific public basic Asiatic dramatic systematic athletic genuine bovine mobile docile fragile hostile expansive cursive exclusive bookish foolish stylish useful graceful thankful peaceful awful needless hopeless careless lifelike childlike

Adverbs: remarkably terribly gladly rapidly safely 7

Verbs: When suffixes are appended to verbal roots, the suffixes receive secondary stress. Note the following examples.

-âte indicate educate appreciate violate contemplate generate

6 Prefixes receiving primary stress are rare, but they are encountered occasionally. Examples are as follows:

percolate antedate prologue excerpt exit sympathy symphony synonym surface subway apathy counterclaim contraband nonsense monologue monolith dual duplicate triangle hydrant quadrant octave decade decimal century centigrade kilogram polyglot demigod hemisphere introvert pseudonym telephone omnibus retrospect magnify primary homonym photograph

7 The suffix LY when added to adjectives forms nearly all the adverbs in English. It occasionally produces adjectives as well, e.g., politely, stately, gravelly, lonely, friendly.
evaluate

-ify         amplify modify notify justify satisfy qualify pacify specify
            crucify edify solidify codify modify qualify simplify
            personify unity clarify verify terrify horrify purify intensify
            classify ratify sanctify identify notify fortify beautify

-ize         standardize sympathize actualize organize equalize

10) Most words ending in suffixes borrowed from Greek, Latin or Old French have primary
    stress on the syllable immediately before the suffixes, i.e., on the penultimate syllable.

-ity         ability community personality maturity activity facility
            intensity capability

-ic          athletic electric Olympic basic magic music domestic
            optimistic sympathetic

-ical        alphabetical electrical classical musical tropical chemical
            physical technical

-ify         amplify purify modify signify qualify solidify terrify unify
            personify electrify

-ia          Columbia cafeteria California Georgia encyclopedia hysteria
            inertia Russia

-ial          artificial centennial confidential crucial special essential
              influential memorial

-ible        admissible credible divisible impossible invisible permissible
              possible audible

vowel + tion /ʃən/
    á + tion: abbreviation communication cooperation generation
              imagination publication quotation recommendation
              recreation organization representation
    é + tion: accretion completion depletion discretion repletion
              secretion
    í + tion: abolition competition intuition disposition ignition
              recognition
    ó + tion: commotion devotion emotion lotion motion notion
              potion promotion
    ú + tion: solution elocution evolution pollution caution restitution
              retribution

consonant+tion /ʃən/
    benediction conscription convention conviction deception
definition erection eruption exception induction junction
    option obstruction prediction prevention collection
    reflection sanction action

vowel + sion /ʒən/
    confusion decision derision evasion intrusion intrusion
occasion precision revision seclusion transfusion

**consonant+sion** /ˈʃən/
- admission confession dimension discussion excursion expression

-**tional** /ˈʃənəl/
  - additional educational emotional exceptional intentional international national rational sensational vocational

-**sional** /ˈʃənəl/
  - occasional provisional

-**ian**
  - Australian dietician electrician Italian magician musician physician politician

-**logy**
  - analogy apology biology ecology geology ideology psychology theology

-**graphy**
  - biography calligraphy geography photography pornography topography

-**ium**
  - calcium geranium medium potassium

-**ual**
  - actual casual eventual gradual manual individual habitual punctual ritual

-**ious**
  - dubious glorious industrious laborious

-**euous**
  - courteous extraneous instantaneous miscellaneous simultaneous

-**ous**
  - ambiguous conspicuous impetuous promiscuous strenuous superfluous

**vowel+sis**
- analysis hypothesis paralysis synthesis

**consonant+sis**
- catharsis synopsis

-**ient**
  - ancient efficient expedient deficient impatient lenient patient resilient

-**ience**
  - conscience convenience patience

-**ency**
  - efficacy deficiency resiliency

-**inal**
  - abdominal criminal medicinal nominal

-**omy**
  - astronomy autonomy economy

---

8 An exception to this rule is *télévision*.

9 Other words ending in -ion are also stressed on the syllable immediately before the suffix.

Note the following words: *battálión coércion légion commúnión millón opinión religión suspición.*
11) A smaller number of words ending in suffixes are given primary stress two syllables before the suffixes, i.e., on the antepenultimate syllable.

-tude
   altitude aptitude attitude interlude latitude
   magnitude solitude

-ize
   advertise apologize criticize emphasize exercise
   improvise minimize realize

-graph
   autograph paragraph phonograph photograph seismograph

-ate
   adequate advocate alternate associate candidate considerate delicate opiate graduate estimate separate intricate\textsuperscript{10}

-âte
   abbreviate accélérerâte apprécierâte assûriéterâte calculâterâte
découvrirâte fâbricâterâte humilierâte célébrâterâte décorerâte
décéderâterâte fâbricâterâte ilhuâtrâterâte irrigâterâte
médiâtre nomâtrâterâte pûncâtâterâte réfrigérerâterâte
rénovâterâte retâlîerâte stîmulâterâte vindicâter\textsuperscript{11,12}

-ist
   biologist chemist economist essayist geologist imperialist optimist pessimist pharmacist psychiatrist

-ous
   adventurous dangerous frivolous humorous marvelous mountainous numerous ridiculous treacherous

-âry
   arbitráry dictionâry itînêrâry military missionâry mònitêrâry
nécessâry ordînâry prélimînâry sânitêrâry sècondâry
sècrêtêry sêmiînêrâry sôlitêry temporâry vocâbûlâry
vôlûntâry\textsuperscript{13}

\textsuperscript{10} The above examples are adjectives or nouns. The A in the suffix - ate in nouns and adjectives is unstressed and reduces to the No. 1 or No. 3 Sound. Primary stress continues to be placed on the penultimate syllable.

\textsuperscript{11} Verbs ending in - ate, are given secondary stress on the suffix, and the vowel is pronounced with the No. 42 Sound. A distinction can therefore be made between homographs that are either nouns/adjectives or verbs by the pronunciation of the A in the suffix. Compare the following pairs of words.

Nouns and adjectives are written first, verbs follow. Primary stress continues to be placed on the antepenultimate syllable in both words, cf., separate séparâter\textsuperscript{4,13} 4 42

\begin{align*}
  &\text{assûcierâte} \quad \text{assûcîtiâte} \quad \text{cônsûmâtê} \quad \text{cônsûmâtê}
  
  &\text{délégatê} \quad \text{délégatê} \quad \text{dégênéâtê} \quad \text{dégênéâtê}
  
  &\text{délibérâtê} \quad \text{délibérâtê} \quad \text{dêsignâtê} \quad \text{dêsignâtê}
  
  &\text{dûpîcâtê} \quad \text{dûpîcâtê} \quad \text{êlôbâtê} \quad \text{êlôbâtê}
  
  &\text{êstimâtê} \quad \text{êstimâtê} \quad \text{grâtûâtê} \quad \text{grâtûâtê}
  
  &\text{môdérâtê} \quad \text{môdérâtê} \quad \text{prêdiâtê} \quad \text{prêdiâtê}
\end{align*}

\textsuperscript{12} Two syllable words ending in - ate always have primary stress on the first syllable. Three or more syllable words ending in - ate have primary stress on the third syllable from the end (antepenultimate syllable). Compare the following words:

\text{filtrâte и \textit{infil}trâte}, \text{mîgrâtê и \textit{imm}igrâtê}. 
12) There are a few suffixes that are always stressed.

-éer  auctioneer  engineer  musketeer  mountaineer  pioneer  profiteer
-ée  absentee  appointee  employee  grantee  referee  refugee  trainee  trustee
-arily  necessarily  ordinarily  temporarily  voluntarily

13) Words ending in -é are never stressed on that syllable. Other configurations of letters in polysyllabic words that are generally not stressed word finally are -el, and -al.

-le Two syllable words:

able  cable  table  babble  pebble  bubble  humble  noble  double  uncle
circle  cycle  saddle  middle  candle  rifle  eagle  single  jungle  twinkle
purple  apple  gentle  turtle  battle  little  bottle  axle  puzzle  struggle

-le Three syllable words:

probable  readable  peaceable  changeable  workable  syllable  usable  suitable  terrible  possible  vehicle  article  triangle  rectangle  miracle  obstacle

-le Four or more syllable words:

describable  practicable  avoidable  appreciable  remarkable  available  inestimable  reasonable  considerable  admirable  respectable  enjoyable  responsible  impossible  contemptible  irresistible  combustible

-el  angel  apparel  barrel  bowel  cancel  cruel  caramel  chapel  diesel  easel  flannel  fuel  gavel  grovel  jewel  label  laurel  level  marvel  model  navel  novel  panel  parcel  quarrel  revel  satchel  sentinel  shovel  squirrel  swivel  towel  travel  vessel  vowel  yodel

-al  actual  admiral  annual  arrival  artificial  bridal  brutal  capital  carnival  casual  cathedral  central  cereal  clinical  criminal  crystal  denial  dental  dial  digital  dual  editorial  electrical  equal  eternal  fatal  festival  final  formal  funeral  general  glacial  hospital  hymnal  ideal  imperial  informal  internal  journal  legal  liberal  loyal  manual  medal  mental  moral  nasal  natural  normal  opal  oval  pedal  personal  petal  postal  principal  racial  radial  rascal  recital  refusal  removal  royal  sandal  several  social  spiral  tactical  temporal  territorial  total  trial  trivial  usual  visual  vocal

14) Words ending in -self or -selves are stressed on those syllables.

mýself  yoursélf  himsélf  oursélves  themselves

Numbers from 13 to 19 are stressed on -teen, while numbers 20, 30, 40, etc., are not stressed on the final syllable.

Thirteen  thirty  fourteen  forty  fifteen  fifty
sixteen  sixty  seventeen  seventy  eighteen  eighty
nineteen  ninety

13) Words ending in -ary receive secondary stress on this suffix. The pronunciation of the A in this suffix is the No. 4 Sound. Primary stress remains on the antepenultimate syllable.

14) Verbs ending in -el will be stressed on the final syllable, e.g., compé  dispé  excél  expél  impé  rébél. Some three syllable words which have primary stress on the first syllable will have secondary stress on the final -el, e.g., cárrousél  citadél  décibél  Jézébél  músca
tél.
Every polysyllabic word in English has at least one primary stressed syllable. There may also be a secondary stressed syllable, but in nearly every word there are one or more unstressed syllables. It is just as important to recognize the unstressed syllables as it is to note the stressed syllables.

In our study of vowel reduction we learned that the vowels in unstressed syllables migrate to one of three reduced vowels. Being able to recognize which syllables are unstressed will enable us to pronounce the vowels in those syllables properly. Unlike syllable stressed languages, English syllables may be stressed in a variety of ways. In order for students of English as a foreign or second language to be clearly understood, he/she must master the placement of stress if they hope to be understood clearly.

In conclusion, it is our hope that by using this approach to initial EFL instruction, children throughout Asia will be able to master the sounds and spellings of the English language with ease and confidence. Teachers who use this system experience added stimulation in their classrooms, find that their students experience success in reading and writing new words, and achieve enjoyment and trust from the very beginning. When children do not flounder in confusion, or give up in frustration, both the students and the teachers benefit. Teaching becomes truly satisfying, learning becomes cumulative and confident. This kind of experience accords with the primary objective of education: the training of the mind to use its own powers, enabling students to think for themselves. When students throughout Asia are provided with the proper tools for learning, we as teachers accomplish the purpose of our profession.

10) Other Phonic Rules

(1) Τεσσαράντα στοιχεία το δισταγμός βετερεν της των προνοοχιστικά εαχος ετης οι της λετεριας ΑΧΑ ανδ ΓΛ, ιε. /σ/ ανδ /κ/ ανδ /θ/ ανδ /γ/ ρεπεχενωλη.

a) c+e/i/y= /s/  c+others=/k/

<table>
<thead>
<tr>
<th>22/i:/</th>
<th>42/ei/</th>
<th>(y)66/(j)u:/</th>
<th>86/ou/</th>
<th>02/ai/</th>
</tr>
</thead>
<tbody>
<tr>
<td>cease</td>
<td>cake</td>
<td>cool</td>
<td>code</td>
<td>cite</td>
</tr>
<tr>
<td>cede</td>
<td>cane</td>
<td>cute</td>
<td>cope</td>
<td>cycle</td>
</tr>
<tr>
<td>keen</td>
<td>case</td>
<td>cue</td>
<td>coal</td>
<td>kite</td>
</tr>
<tr>
<td>keep</td>
<td>came</td>
<td>coop</td>
<td>cold</td>
<td>sky</td>
</tr>
<tr>
<td>4/e/</td>
<td>5/ae/</td>
<td>1/Λ/</td>
<td>Α/α/</td>
<td>3/i/</td>
</tr>
<tr>
<td>cent</td>
<td>cat</td>
<td>cult</td>
<td>cop</td>
<td>city</td>
</tr>
<tr>
<td>cell</td>
<td>can</td>
<td>cub</td>
<td>con</td>
<td>cynic</td>
</tr>
<tr>
<td>kettle</td>
<td>cattle</td>
<td>cut</td>
<td>cot</td>
<td>kitty</td>
</tr>
</tbody>
</table>

C+e=s/i/s/:  cedar scene celery ceramic celebrate Cedric scent
C+i=s/i/s/:  cite science cipher society city cicada pencil civic
C+y=s/i/s/:  cycle cyclone scythe cybernetics cylinder cynical

C+ others=/k/: cab can cat cabin cabbage cactus scan came cage scale cane cob cock cod cop cot cogent cope scope coal coat coach cold cup cut cucumber cool cook scoop scooter scuba scud stuff cloud clean cream cry crow screw screen basic music fact tact
b) \( \gamma + \varepsilon \, /\psi = /\varphi/ \, [\text{d3}] \) \( \gamma + \text{othesis} = /\gamma/ \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

\( \gamma + \varepsilon = /\varphi/ \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

\( \gamma + \varepsilon = /\varphi/ \, [\text{d3}] \)

(2) When "th" appears initially in content words, the pronunciation is always voiceless /\theta/.

thank thatch thack theater thist theft theism theme therapy theory theocracy theology thermometer thermostat thesaurus thesis thick thin thig thimb thistle thorn thorough thought third thousand thrash three thress thread threat threw thrice thrill thrif thrive throat thrub throne throttle throw throng thrust thumb thunder thwart thyroid Thursday Thackeray Thatcher Theodore

When "th" appears initially in function words, the pronunciation is always voiced /\delta/.

than that the their them then this these those though

When "th" appears medially in words, it is most frequently voiced /\delta/, but occasionally unvoiced /\theta/.

Examples of words in which the medial "th" is voiced are:

mother father brother either other another wether weather feather whether northern southern bother rather gather together further heather wither smoother farther tither breather leather nether neither hither whither worthy

Examples of words in which the medial "th" is voiceless are:

method ether panther mathematics arithmetic mythology ethics athlete atheism wealthy healthy stealthy healthily healthily stealthily

In compound words containing a medial voiceless "th," the voiceless pronunciation is
When "th" appears word finally, the pronunciation is voiceless /ð/, e.g., "bath," "breath," "path," "health," "faith," "death," "tooth," etc. Only one word which ends in the letters "th" can be pronounced both with a voiceless and voiced "th." That word is "with." John Kenyon and Thomas Knott give the following explanation of this phenomenon. "The choice between /wið/ and /wɪð/ may depend partly on phonetic conditions, but there is no consistent general practice."

If one hears a voiced "th" /ð/ at the end of a word, it is always written "the."

Examples of this rule are:

breathe bathe blithe clothe loathe scythe soothe writhe wrinkled

(3) The pronunciation of the high back tense vowels in these words is determined by the preceding consonant phoneme.

Students are often confused when pronouncing the vowel phonemes in words such as "blue" and "hue." Since both vowels are spelled "ue," students are at a loss whether to pronounce the vowel as /ju:/ or /u:/.

"blue" and "hue." Since both vowels are spelled "ue," students are at a loss whether to pronounce the vowel as /ju:/ or /u:/.

Note the following examples:

<table>
<thead>
<tr>
<th>June</th>
<th>rude</th>
<th>clue</th>
<th>true</th>
<th>fruit</th>
<th>juice</th>
<th>brew</th>
<th>chew</th>
</tr>
</thead>
</table>

In all these words the vowels are pronounced /uː/. Contrast these words with the following in which the vowels are pronounced /juː:/:

<table>
<thead>
<tr>
<th>cute</th>
<th>dupe</th>
<th>mute</th>
<th>huge</th>
<th>use</th>
<th>fume</th>
<th>cue</th>
<th>due</th>
<th>fuel</th>
<th>dew</th>
</tr>
</thead>
</table>

From observing the words we can see that the consonants that precede the vowels that are pronounced /uː/ are all alveolar or alveolar-palatal consonants, i.e., they are articulated near or on the upper gum ridge or forward palate. The point of articulation for the consonants that precede the vowels that are pronounced /juː:/ is elsewhere.

These alveolar-palatal consonants are /l/, /r/, /dʒ/, /tʃ/, and /s/. In American English the consonant phonemes /d/, /t/, and /n/, also influence the pronunciation of the following high back tense vowel. In most instances Americans will pronounce the high back tense vowel /uː/ rather than /juː:/ when it follows /d/, /t/, or /n/. Note these examples: "duke" as /djuːk/ or /djuːk/; "news" as /nuːz/ or /njʊːz/; "Tuesday" as /juːzdəi/ or /ˈtʃuːzdəi/.

Because we adopt a prescriptive approach to teaching pronunciation in the EFL classroom, we try to limit the number of consonants which precede the high back tense vowel /uː/ to five, i.e., /l/, /r/, /s/, /dʒ/, and /tʃ/. We therefore eliminate the phonemes /d/, /t/, and /n/. Of course we might include /z/, the voiced cognate of /s/, but there are few words in which /z/ precedes the high back tense vowel written with the letters "u," "u-e," "ue," "ui/.
"ui," or "ew." A single example of this would be the word "Zulu." Both letters "u" in that word are pronounced /u:/.

To aid students in remembering this simple rule, we have produced mnemonic devices for Korean learners. Note the illustrations below:

An interesting feature of English can now be easily explained, i.e., the use of the letters "oo" for /u:/. When we wish to write words in which the vowel is pronounced /u:/ rather than /ju:/, and the preceding consonants are not /l/, /r/, /s/, /ʤ/ or /ʧ/, we must always write the vowel with the letters "oo." Note the following examples: "too," "moon," "noon," "scoop," "boot," "food," "tooth," "pool." If the vowel /u:/ in a word is preceded by /l/, /r/, /s/, /ʤ/ or /ʧ/, the possibilities for spelling increase. For example, the word /lu:t/ might be spelled both "lute," and "loot," /ru:t/ might be spelled "route," or "root," but /mu:t/ can only be spelled "moot," not "mute," which would be pronounced /mu:z/ and /u:z/ can only be spelled "ooze", not "use" which would be pronounced /ju:z/ or /ju:s/.

### No. 66 Sound

<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E-1</th>
<th>E-2</th>
</tr>
</thead>
<tbody>
<tr>
<td>(-)u/</td>
<td>(-)u-e</td>
<td>-ue.</td>
<td>-ui-</td>
<td>(-)oo-</td>
<td>(-)ew-</td>
</tr>
<tr>
<td>July</td>
<td>Bruce lube rube sue fruit soon blew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>flu</td>
<td>spruce truce ruse true suit troop chew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ruby</td>
<td>crude Jude rude blue juice root crew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>rude fluke Luke true bruise zoo flew</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>rumor</td>
<td>rule flume plume true recruit roof gre w</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>jaju</td>
<td>June prune glue cruise snoop jewel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>lucid</td>
<td>drupe flue sluice bloom lewd</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>super</td>
<td>brute flute jute Sue spruik groom brew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ulu</td>
<td>lute sprue room clew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ecru</td>
<td>absolute roost screw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>thru</td>
<td>resolute loom shrew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>rule r</td>
<td>salute doom strew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peru</td>
<td>moon threw</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yalu</td>
<td>spoon brew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>juba</td>
<td>pool Jew</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>cru/el</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

### y66 Sound
Exercise: No. 66 versus No. y66
Fill the vowel number in the blanks. Example: stew[y66] Jew[y66]
1. flu [   ]  2. nude [   ]  3. blue [   ]  4. sluice [   ]  5. skew [   ]
6. woo [   ]  7. gnu [   ]  8. tube [   ]  9. sprue [   ]  10. bruise [   ]
16. suit [   ]  17. shrew [   ]  18. juba [   ]  19. lute [   ]  20. cue [   ]
21. cruise [   ]  22. hew [   ]  23. doom [   ]  24. lewd [   ]  25. newt [   ]

(4) Difference in word endings between basic and other sounds, ie, alphabet and special sounds:
(a)-ck versus –k:
Basic Sounds: -ck: block clock bock cock jock pock smock sock stock
chock buck luck duck suck chick kick lick hick check heck deck
neck back tack pack rack sack lack black stack
Other Sounds: -k: bake take cheek beck hike bloke cloak coke joke poke
smoke soak choke Luke duke

(b) -ch versus –tch:
Basic Sounds: -tch: botch notch splotch clutch crutch Dutch hutch ditch
pitch itch hitch etch fetch sketch stretch wretch batch catch hatch latch,
match patch scratch watch snatch
Other Sounds: -ch: coach poach roach hooch mooch pooch smooch beach peach reach teach ouch couch pouch
vouch torch porch birch church perch lurch

(c) –ge versus -dge
Basic Sounds: -dge: doge loge budge judge nudge smudge bridge ridge
derge hedge pledge sledge wedge badge cadge
Other Sounds: -ge: huge stooge liege siege age cage page rage sage
stage wage gouge merge

(5) The pronunciation of –ex
1. 무강세인 ex 뒤에 강세 모음이나 h+강세 모음이 온 경우 ex는 [igz]로 발음된다.
exemplar [3g-z4-Я]  executive [3g-z4-у7-3]
excutant [3g-z4-у7-1]  exonerate [3g-z0-Я-42]
<table>
<thead>
<tr>
<th>Word</th>
<th>Pronunciation</th>
<th>Word</th>
<th>Pronunciation</th>
</tr>
</thead>
<tbody>
<tr>
<td>exotic</td>
<td>[3g-z0-3]</td>
<td>existence</td>
<td>[3g-z3-1]</td>
</tr>
<tr>
<td>exert</td>
<td>[3g-zЯ]</td>
<td>exude</td>
<td>[3g-zy66]</td>
</tr>
<tr>
<td>exult</td>
<td>[3g-z1]</td>
<td>exact</td>
<td>[3g-z5]</td>
</tr>
<tr>
<td>exalt</td>
<td>[3g-z99]</td>
<td>exam</td>
<td>[3g-z5]</td>
</tr>
<tr>
<td>exasperate</td>
<td>[3g-z5-1-42]</td>
<td>exuberance</td>
<td>[3g-zy66-1-1]</td>
</tr>
<tr>
<td>exorbitant</td>
<td>[3g-z99-1-1]</td>
<td>executory</td>
<td>[3g-zy66-1-1]</td>
</tr>
<tr>
<td>executrix</td>
<td>[3g-z4- ky7-3]</td>
<td>exempt</td>
<td>[3g-z4]</td>
</tr>
<tr>
<td>exhort</td>
<td>[3g-z99]</td>
<td>exhume</td>
<td>[3g-zy66]</td>
</tr>
<tr>
<td>exhibit</td>
<td>[3g-z3-3]</td>
<td>exhaut</td>
<td>[3g-z99]</td>
</tr>
<tr>
<td>exhibit</td>
<td>[3g-z3-3]</td>
<td>exhilarate</td>
<td>[3g-z3-1-42]</td>
</tr>
</tbody>
</table>

2. 제2강세가 있는 ex 뒤에 무강세 모음이 올 경우 ex는 [ eks]로 발음된다.
   - exercise [4k-sЯ-s02]
   - execute [4k-s1-y66]
   - exegrate [4-3-42]
   - exorcise [4k-s99-02]
   - exodus [4-1-1]
   - exigent [4-1-1]

3. ex에 제2강세가 있고 그 뒤에 무강세 모음이 따를 경우 ex는 [ eks]로 발음된다.
   - exoteric [4k-s1-4-3]
   - excretion [4k-s3-kr42-1]
   - execution [4k-s1-ky66-1]
   - exegesis [4k-s1-22-3]
   - exudation [4ks-y7-42-1]
   - exultation [4k-s1-42-1]

4. 제2강세인 ex 뒤에 묵음인 h 이외의 자음이 오면 ex는 [ eks]로 발음 된다.
   - expedition [4ks-1-3-1]
   - expectation [4ks-4-42-1]
   - explanation [4ks-1-42-1]
   - exploration [4ks-1-42-1]
   - extrasolar [4ks-1-86-1]
   - extroversion [4ks-1-Я-1]

5. 무강세인 ex- 뒤에 자음이 오면 ex는 [ iks]로 발음 된다.
   - exceed [3ks-22]
   - expand[3ks-5]
   - expanse[3ks-5]
   - explain[3ks-42]
   - exchange[3ks-42]
   - expect [3ks-4]
experience [3ks-3-1]  experiment [3ks-4-1-1]
expire [3ks-02]  explode [3ks-86]
explore [3ks-99]  exploratory [3ks-99]
explosion [3ks-86-zh1]  express [3ks-4]
extol(l) [3ks-86]  extent [3ks-4]
exterior [3ks-3r-3-Я]  external [3ks-Я-1]
extract [3ks-5] vt.  extreme [3ks-22]
extroverananza[3ks-5-1-5-1]  extrusion [3ks-66-zh1]

6. 제1강세가 있는 ex 뒤에 자음이 오는 단어의 ex는 [eks]로 발음된다:
expedite [4-3-02]  expert [4-Я]
explicate [4-3-42]  export [4-99]
extrovert [4-1-Я]  excrement [4-1-1]

7. ex 뒤의 h자가 발음되는 단어의 경우 ex는 [eks]로 발음된다.
exhale [4ks-h42]  exhalant [4ks-h42-1]
exhalation [4ks-h1-42-1]

x의 발음
날말의 첫자이면 100% [z]로 발음됩니다.
Xavier  xenophobia  xenolith
42 2  Я  4 1 86 3 1 4 1 3
xerox  xylophone  xyylene
3 0 02 1 86 02 22

Xavier n. 자비에르 Saint Francis ~(1506-52) Jesuit 교과의 스페인 선교사
xenolith n. 岩石 포로암(捕虜岩) 火成岩 속에 들어 있는 이질(異質) 암석 조각
xylene n. 化 病寢體 水溶 原料, 溶剤(溶劑)
(6) The pronunciation of –ng

1. ng가 단어의 끝에 오면 언제나 /ŋ/으로 발음한다.

   1) rung sung young bring king ring sing spring thing wing
      hang rang sang long song strong wrong
   2) 진행형을 만드는 -ing의 ng는 당연히 /ŋ/으로 발음 된다. 그 밖의 예를 들면:
      pudding wedding ceiling darling among along
      belong ping pong
   * 접미어가 붙어도 /ŋ/의 음은 그대로 남는다.
     i) -ing bringing singing hanging longing
     ii) -er hanger singer

2. ng 뒤에 모음 a, o, u나 자음 글자가 올 경우에는 /ŋ/로 발음 된다.

   Singapore Hungary language bongo (큰 영양) kangaroo bingo
   tango mango singular triangle jingle single jungle angry hungry

예외: 복합어인 경우의 ng는 그 다음에 자음이 오는 경우에도 /ŋ/으로 발음 된다.
   ringleader slingshot steppingstone

3. ng 뒤에 e, i, y가 올 경우 ng는 /nj/로 발음된다.

   lunge sponge fringe hinge range challenge change strange
   ginger danger engine engineer stingy rangy

   그러나 ng로 단어가 끝나고 거기에 접미사로서 y가 붙는 경우의 ng는 /ŋ/으로 발음 된다.
   springy clinging tangy slangy

   따라서 [nj]로 발음되는 rangy와 /ŋ/으로 발음되는 slangy의 차이는 다음과 같은 이유
   에서 나온 것이다.

   rangy의 경우에는 range로 끝난 날말이 형용사화하면서 e가 탈락하고 y가 붙은 것이며 본
   래의 음이 [nj]인 것이었기 때문에 그 음을 지키려는 것이다. slangy의 경우는 slang으로
   끝난 단어로서 그 본래의 음이 /ŋ/이였으므로 그것을 지키려는 것이다.
   stingy (인식한) [nj] vs stingy (쓰는, 날카로운)의 경우를 보면, stingy (인식한)은 본래의
   형용사가 stingy인 것이며, stingy (쓰는, 날카로운)은 /ŋ/음의 동사 sting에서 나왔기 때문
   임.

4. ng가 접두어 con, in, pan, non 등에 의해 n과 g가 분리되고 g 다음의 음절에 강세가
  는 2와 3의 규칙에 따른다.

   con/grá̃tulàte [kəŋgrá̃t̠ulət]  
   con/gressional [kəŋgréʃənəl]
íngráté [íngrèt] con/glo/mer/ate [kəŋglə′məreit]  
pan/gé/nésis [pændʒénəsis] con/ge/st [kəndʒést]  
con/gé/nial [kæŋg′iːnəl] con/ge/al [kæŋg′iːl]  

그러나 ng가 위와 같이 분리되어도 g 뒤의 음절에 강세가 없을 경우에는 ng는 [ŋɡ]로 발음된다. 즉 n자는 [ŋ]음이 된다.

cón/gress [kən′grəisis] cón/gregá/tion [kən′gríjəʃən]  
cón/gregá/te [kən′grígiıt] cón/gruence [kən′ɡruəns]  
incón/gruous [in′kən′ɡruəs]

5. angry vs anger and hungry and hunger  
anger와 hunger가 e,i,y의 규칙을 따르지 않는 것은 angry와 hungry가 우위를 갖는 어원이고 그것에서 파생된 anger와 hunger가 원래의 어원의 음을 지키기 위한 예외라고 보는 학자들이 많다.

(7) The pronunciation of stressed vowels when followed by /r/ and an unstressed syllable  
Lesser principles of English sounds and their spellings such as the pronunciation of stressed vowels when followed by /r/ and an unstressed syllable are then taught, i.e., the distinction between the pronunciation of the stressed vowel in “her,” “herd,” “hermit,” and the stressed vowel in “hero” or “herald;” the stressed vowel “sir,” “sirloin,” or “circus,” as opposed to the pronunciation of the stressed vowel in “syrup” or “Syria;” the stressed vowel in “fur,” “furl,” or “further,” as opposed to the stressed vowel in “fury,” or “furor;” and the stressed vowel in “fur,” “furl,” or “further,” as opposed to the stressed vowel in “bar,” “bark,” “barber,” as opposed to the stressed vowel in “baritone” or “baron.”

(8) The influence of consonant phoneme /w/ on low vowels, /æ/, /a/, and /ɔ/  
The influence of the consonant phoneme /w/ on low vowels, /æ/, /a/, and /ɔ/, is also explained. Students are therefore able to pronounce with ease words in which the vowel migrates from /a/ to /ɔ/ when preceded by the consonant /w/, e.g., “par” and “war,” “card” and “ward,” “harp” and “warp,” “smart” and “quart,” etc., from /ɔ/ to /ɹ/ as in “cord” and “word,” “stork” and “work,” “form” and “worm.”

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Final Test

1. scythe
2. antimaçaissar
3. lackadaisical
4. Venusian
5. acrophobia
6. monolith
7. osteoarthritis
8. natriuresis
9. isosceles
10. odometer
11. esophagus
12. cataadromous
13. xylotomous
14. panegyrist
15. sclerosis
16. trilobite
17. toboogean
18. crustacean
19. ecicity
20. horizontal
21. anagrammatism
22. catabolic
23. cirdipede
24. eucalyptus
25. longitudinal
26. photôspectroscope
27. blastogenesis
28. agoraphobia
29. aposiopesis
30. sclerometer
31. speedometer
32. chronometer
33. hypothalamus
34. amygdaloidal
35. genome
36. appendicitis
37. porpoise
38. idolater
39. coccyx
40. xylography
41. meteorology
42. mechanic
43. mechanism
44. nativity
45. cirrhosis
46. ëchôlolocation
47. exonerate
48. extravaganza
49. catabolism
50. anadromous
51. anabolism
52. anabolic
53. metabolism
54. metabolic
55. cerebral apoplexy
56. hassock
57. photography
58. monotony
59. connoisseur
60. Portsmouth
61. induration
62. rhinoceros
63. cathedral
64. ódöntologist
65. odoriferous
66. ódöntoglossum
67. cirrous
68. cirrhosis
69. circumlocution
70. pedestrian
71. ectogenous
72. cataclysm
73. rhinovirus
74. opossum
75. pedantocracy
76. calligraphy
77. phraseology
78. calisthenics
79. Coleridge
80. marimba
81. hepatitis
82. hepatectomy
83. photobiology
84. secrete
85. xenophobia
86. exorbitant
87. trapezium
88. hegemony
89. despotism
90. despotic
91. ermine
92. hepatocirrhosis
93. trîune
espouse 95 abdominal 96 xenolith 97 acrophobia
98 claustrophobia 99 arteriosclerosis 100 otorhinolaryngology

For further information on Sound Spelling Harmony,
please visit the web site http://www.fll.co.kr
or write to:
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e-mail: youngjl@unitel.co.kr
Tel: 82-2-785-1749 Fax: 82-2-780-2817

1. Ronal E. Feare, Key to Success on the TOEFL, (Seoul, Foreign Language Limited, 2003),
and an interactive multimedia program developed by Foreign Language Limited using the manuscript of
the book since 1995 and class-tested in my experimental classes.
Jack C Richards, Debora Gordon, Andrew Harper, Listen For IT, originally published in 1994 by Oxford
University Press and its interactive multimedia program developed by Foreign Language Limited since
1997 and class-tested in my experimental classes (Seoul, Foreign Language Limited, 2003)
2. 1. William Maxwell, Global English, A Correspondence Course (developed when he taught English in
Korea; not published)
3. Kim Byong Won, Why Can't You Have a Better Command of English (Seoul, Foreign Language
Limited, 1987)
4. Frederic Vester: Denken, Lernen, Vergessen, Was geht in unseren Kopf vor wie lern das Gehirn, un
wann laest es uns im Stich? (Stuttgart: Deutsche Verlags-Anstalt GmbH, 1975) (Translated into Korean by
Foreign Language Limited only for research resources, unpublished)
12, Agora, IGSE (International Graduate School of English) Newsletter, 2003, Seoul, Korea.
Terry Fredrickson, Focus on Words with Exercises: Using Context Effectively (Seoul, Foreign Language
Limited, 1993)
8. For example, three of the students in the experimental group, Kim Dong-yun, Kim Hyun-bum and Hong
Ewha who came to my class 17 months ago when they were in kindergarten started to learn English in the
method developed by Prof. Paul V. Griesy, the author of Sound Spelling Harmony, a theory and practice in
teaching the grapheme-phoneme correspondence of the English language. After that they have been
taught four major functions of English, Listening, Speaking, Reading and Writing, using interactive multimedia programs for teaching English developed by myself in addition to a variety of interactive multimedia programs available. All these multimedia programs have been adapted for my experimental classes. After 17 months from the initiation of English learning at the age of 6, these three kids were promoted to the class where the majority of students are high school or college students preparing for TOEFL and TOEIC examinations. They are not in the highest groups of students in this class, but they are better than the average students. They speak and write more accurately than the other average students, and they rarely make spelling errors, thanks to their thorough learning Sound Spelling Harmony system.

Other resources that with which I have experimented in my teaching English are as follows:

- **Robert Rosenthal**, Pygmalion In Management, Havard Business Review,
- **Maxwell Maltz**, Psychocybemetics,
- **Heinlich Schultz and Wolfgang Lotte**, Autogenic Training vols 1-7
- **Pattey M. Lightbown & Nina Spada**, How Languages are Learned, Oxford University Press, 1997
- **Paul Davies** with **Eric Pearse**, Success in English Teaching, Oxford University Press, 2000
- **Marianne Celce-Murcia** (ed), Teaching English as a Second or Foreign Language (2nd edn.), Heinle and Heinle, 1991, Boston
- **Paul Davis & Eric Pearse**, Success in English Teaching, Oxford University Press, 2000
- **Peter Avery & Susan Ehrlich**, Teaching American English Pronunciation, 9th impression, Oxford University Press, 2002
- **Rod Ellis**, Understanding Second Language Acquisition, Tenth impression, Oxford University Press, 1995
- **Vanessa Reilly & Sheilla Margaret Ward**, Very Young Learners, Oxford University Press, 1997
- **Alvino E. Fantini**, Language Acquisition of a Bilingual Child: A Sociolinguistic Perspective (To Age 10), Multilingual Matters LTD, 1985
- **Andrew Wright**, Story Telling with Children, Oxford University Press, 1995