Word Learning for Elementary School Learners of English in Japan

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1. Introduction

The introduction of literacy to English education in elementary school is one of the contentious and divisive issues within English teaching professionals in Japan. Providing auditory input along with the orthographic input printed in textbooks is a common approach in junior and senior English classes in Japanese high schools. English literacy education at the elementary school level, however, is considered to be premature out of concern that it possibly imposes a strain on student's cognition. The priority in instruction in elementary schools as of this moment is phonological communication, through which students are exposed to high-quality auditory input in order to facilitate their familiarity with English.

While phonological skills are acquired first for L1 learners in a natural English-speaking setting, literacy naturally comes later. In an EFL environment, if learners are already literate in their native language, orthographic input can possibly facilitate word learning as well as auditory input, because having literacy in native languages naturally raises their awareness for the connection between the sounds and letters in a target language. This motivates students to read and write the words they learn from auditory input. Therefore, intentionally avoiding literacy education in English is not a developmentally-appropriate curriculum.

The English orthographic system is completely different from the Japanese one. This actually raises a main concern about cognitively burdening young Japanese English-learners. Is it still premature to give orthographical inputs to those who are

still in the middle of literacy development in their native language with different writing system? This study discusses the effective ways of improving word learning in English for elementary school learners in Japan.

2. Development of orthography and auditory systems in word learning

Among many kinds of input, auditory input is essential for word acquisition and communication development for EFL learners as it is for L1 learners. Word learning is very important, since the acquisition of concepts and sounds of word is the very beginning stage of development in language communication. In learning EFL, the problem lies in the scarce input in natural environment: therefore, learners largely depend on the one provided by formal instruction in EFL classroom. Therefore, it is necessary to contrive a medium of word input for effective development.

Some studies examine the mutual influence of the major constituents of word reading skills: phonology, meaning and orthography. (Nation&Castles, 2007; Shahar-Yames&Share, 2008). In the principle of orthographic depth, orthographies vary from shallow orthographies with transparent grapheme-phoneme relations, to deep orthographies, in which these relations are opaque (Irit &Zvia, 2014). It is found that the development of word reading skills in a language of deep orthography in English is slower than in the one of shallow orthography (Florit&Cain, 2011).

According to the principle, unlike the deep orthographic system in languages such as English, French and Arabic, the Japanese language has a shallow orthography in which *hiragana* has a one-on-one correspondence between phoneme and letter. Therefore, cross-language transfer of orthographies never takes place for Japanese EFL learners. It is often the case that Japanese English learners have much difficulty with reading English regardless of not having any genetic problems, such as dyslexia, with Japanese. This is the one of the reasons why the use of alphabetical letters in

Japanese elementary school English is limited in its function as a subsidiary to communication. A guideline given by MEXT (2008) explains this cautious stance to literacy introduction in English.

However, for the purpose of word instruction, many if not most teachers in Japanese elementary schools present new English words while pronouncing them and showing picture cards that have the written words on them. In this approach, the expectation for learners is to mimic the modeled pronunciation and not for them to acquire literacy skills with practice in reading the words in cards; students are merely exposed to the orthographic representation with phonologically recognized words. Actually, the covert purpose of this approach is to allow them to gain familiarity with alphabetical letters and adopt the orthographic image as a recall-clue for the use of words in phonological-based communication. It is also expected that the acquired familiarity with alphabetical letters will lead to the next stage of reading and writing in the students' future English studies in junior high school.

At the moment, except for a few special elementary schools, explicit instruction of the structure of sounds and words such as phonics instruction, which aims to raise phonetic awareness for literacy development, is basically not given in elementary school classrooms. In word learning, however, Japanese learners unconsciously visualize written forms of English words, associating them with auditory information provided by teachers. In other words, they build orthographic images of words if they happen to pay attention to the written words in word cards. However, if students do not pay attention to the written words, their learning of words depends only on auditory input along with the concepts and meanings shown in the pictures. It is important to explore the efficiency of word learning in the beginning levels by studying the functions of auditory input and orthographic input.

3. Word recognition

Word recognition is an important process in word learning. In1985 model, which is widely accepted in this field of research, the development of word recognition is well illustrated by explicating three developmental stages: logographic, alphabetic and orthographic. The first stage, "logographic," depends on rote memory of words connected to graphic symbols visually oriented and cued for reading. The second stage, called "alphabetic," requires a more analytical process than the "logographic stage", focusing on word components and sounds of letters. The third stage, "orthographic," demands analysis of groups of words and promotes "sight reading" for efficient readers. The developmental image is shown in Arao's research of 2010 as in Figure 1.

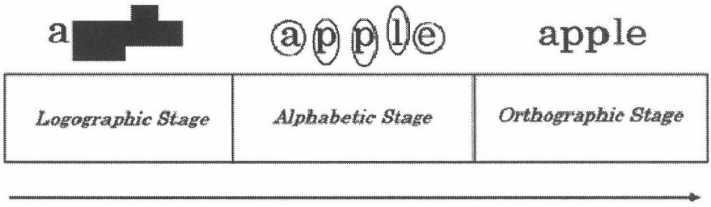

Figure 1. Frith's three stages of development in word recognition (Arao, 2010).

In this model, in which stage do Japanese elementary school learners of English fit? They are most likely provided with auditory words and, at the same time, orthographic images by the use of word cards, as was mentioned before. This practice is very similar to the whole-word recognition approach in which learners visualize words, but do not actually read them. Whole-word approach is often adopted in an ESL environment as the very primary introductions to letters; the attached written word cards in the objects, such as a whiteboard, a desk, chair, etc., give natural exposure to the orthographic images and the concept without any explicit instructions.

The lack of systematic phonics instruction could make it difficult for Japanese elementary school English learners to develop a rigid linkage between phonemes and sequences of letters. Since they learn Roman letters in the 3rd grade, they have a certain level of familiarity with alphabetical letters; however they cannot possibly go beyond this familiarity level without knowing a systematic association between sounds and letters. Their attempt to read a word is challenging. In a mere visual exposure to written words, they are likely to pay attention to only a part of the words, such as the initials they find visually noticeable and recognize well.

The stage that Japanese elementary school learners find themselves in -is the "logographic reading-," stage, in which learners take not a holistic but an analytic approach, focusing on a few of the letters of the word (Genisio & Bastien - Toniazzo, 2003). Japanese elementary school students, in a way, are expected to be at least in the "logographic stage" of word recognition. Facing written words, some may try to match the sounds and letters using speculation based on their previously learned words and the knowledge of Roman letters. The acquisition of reading and writing skills with Roman letters is said to have positive and negative influences on letter-sound correspondence. Paying attention to the beginning letter of words raises their awareness for alliteration, which is used often for beginning literacy education for native speakers of English. (Leeper, 2008). Variety in letter-sound combination in English words can be a source of confusion to learners who just acquired Roman letter familiarity.

The problem here is that learners' attempts in reading words, however, remain as guess work. It is supposed that Japanese elementary school students are somewhere between the logographic and alphabetic stage, flowing back and forth in the continuum, but hardly reaching the orthographic stage, due to the lack in integrative knowledge of words and systematic spelling rules.

4. The role of orthographic information for elementary school level of English

How do Japanese elementary students benefit from an orthographic representation in auditory word learning? It has been argued that orthographic inputs facilitate word learning over auditory inputs in young EFL learners, as well as in their adult counterparts (Ehri, 2005; Ehri & Wilce, 1979). Simultaneous presentation of auditory and orthographic information can promote word learning and lead to better retention of words (Bird & Williams, 2002). It is suggested that phonological word production increases the level of spelling accuracy by simultaneous presentation of auditory input along with the written forms (Erdener & Burnham, 2005). These studies suggest that orthographic representations promote auditory word learning by integrating and forming the information concerning words for the maintenance of word memory.

In Arao's study in 2010, it is revealed that the presentation of orthographic information to those who have few experiences with L2 literacy education still has a positive effect on word learning in terms of memory. In the study, learners can remember the concept of a word mostly by depending on auditory input. The test administered thirty minutes after the learners' word learning proves that learners remember words without dependency on orthographic information. On the other hand, the results of the test administered twenty two days after learning words shows the effectiveness of the learners' uses of orthographic information in recalling the concept of words by association of auditory and visual information (Figure2). According to this study, orthographic input is taken full advantage of in fixing learners' memories in word learning.

It is important to consider how to access the concepts of English words by orthographic and phonological representations in reading. When learners understand the word concept from orthographic information, two routes are available for them:

direct access and indirect access (Barron, 1986). In direct access, learners match the orthographic representations with the ones kept in mind and access the concepts of words. In this process, there is no auditory mediation. Meanwhile, in indirect access, learners create the phonological representations by the use of orthographic information and then match the created phonological ones with the ones kept in memory. Usually, learners take either of these routes or combine both of them together. Either way, phonological representations are always requisite, so the auditory approach in elementary school in word learning is a justified way to learn words. It does not, however, mean that limiting orthographic input has to be in the right.

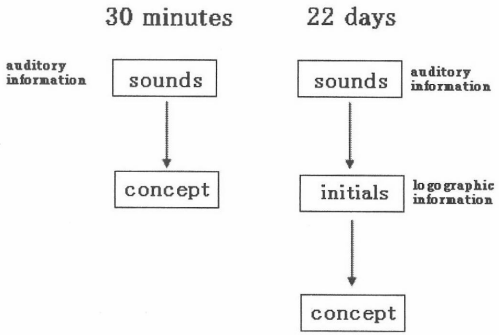

Figure 2. Access to the concept 30 minutes and 22 days after word learning (Arao, 2010).

5. How literacy is introduced

The acquisition of literacy skills start with word reading. Explicit instruction of letter-sound correspondence in English at the elementary level should come under view now, because this approach is necessary sooner or later. Why not implement this technique at the beginning stage of learning English? Elementary school students have

acquired the meta-linguistic knowledge to analyze the written form and the word. Lightbown and Spada (2013) explain this by an example: L1 children with literacy understand that "caterpillar" is longer than "train" as a written word as opposed to actual caterpillars and trains. Japanese elementary school students have already acquired literacy in their native language, so their meta-linguistic awareness is ready enough to gain literacy in another language. In junior high school, Japanese learners of English encounter, for the first time, orthographic challenges emerging from the different orthographic system. In Koda (1995, 2008), literacy in L1 has been found to have a strong influence and long-lasting impact on L2 literacy. As was mentioned previously, Japanese learners have a difficulty in identifying the sound and letters in English by discarding their native language system of one-on-on relationships between sound and letter.

The way of teaching English literacy in elementary schools in ENL countries can be one of good references. As in Japan, training auditory sense by listening is considered to be important as a pre-stage of literacy. Phonemic awareness is one of the concepts which emphasizes raising the awareness for the sound component of words by auditory approach (Leepr, 2008). To create a foundation of literacy, instructions based on the importance of phonemic awareness go through seven steps to train auditory perception by listening as shown in Table 1.

Table 1. Summary of Phonemic awareness by Leeper (2008)

Step1.	Rhyming: Pay attention to the ending sound of a word Words ending with the same sound, e.g. king/ring/sing
Step2.	Alliteration: Pay attention to the beginning sound of word Words beginning with the same sound, e.g. Sumiko sits in the seat
Step3.	Syllable & Onset Rhyme: Group the sounds of word

	Syllable: Divide word by vowel groups Onset Rhyme: Divide word by the first vowel. A group of consonant before the vowel is onset. A group of the vowel and the consonant is rhyme. e.g. post: p(onset), ost (rhyme). green: gr(onset), een (rhyme).
Step4.	Blending: Connecting sounds to make a word e.g. c+a+t=cat
Step5.	Pay attention to the beginning sound, middle sound and ending sound e.g. boat: consider "b", "oa", "t".
Step6.	Segmentation/counting sounds: segment the sounds of the word and count them e.g. pig: /p/i/g/, 3sounds
Step 7.	Manipulate sounds: Convert the beginning and ending sounds e.g. man: convert /m/ into /p/ →pan, pan: convert /n/ into /t/

(Summary of Leeper, 2008)

Through these steps, children perceive sounds from different angles and realize that spoken words consist of sounds and groups of sounds. The instruction enhances the perception of the phoneme. This process makes it easier for children to advance to the next stage of education in phonics, in which they are required to connect sound and letter. It also leads to solid reading and writing abilities.

Leeper (2008) also argues that children growing with much rhyming and alliteration input develop their auditory systems with much ease. This is achieved by reading books aloud to them, using chants, and playing games using rhyming and alphabets. In Japan, teachers reading picture books aloud to children is a common sight in an English class. However, the creativity work or story line of the book is

primarily focused in English classes. The efficiency of rhyming and alliteration are still overlooked and underutilized.

Although the use of phonics is now getting much more attention in early childhood English education, it can be premature to introduce phonics without the readiness of phonemic awareness. Without this readiness, Japanese elementary school students have difficulty in making use of logographic information and even moving to the next alphabetical stage. If phonemic awareness of rhyming and alliteration is not yet available to students, an instruction of word reading skills can be an unproductive attempt. Therefore, taking an auditory approach in elementary school English level is never a misguided policy; however, techniques for raising phonemic awareness have to be established in order to achieve the desired effect.

Conclusion

This study discusses an effective method of word learning. Since the difference of orthographic of English seems to be challenging, the introduction of literacy education in English at the elementary school level has been suspended in a level of visual exposure to orthographic representation in word cards. Little special attention has been paid to the phonemic system in spite of the auditory approach taken currently.

Just a mere exposure to orthographic representation still serves the purpose of word learning in English. It has been clarified in past studies that orthographic information facilitates long-term memory in word learning. There comes a time when learners have to acquire literacy in English, so starting this process earlier is the suggestion of this paper. The suggestion does not deny the auditory approach adopted currently. A more systematic and devised way of auditory approach for activating phonemic awareness is suggested.

While this study remains abstract in terms of practical teaching approaches in the classroom, it points out the groundless belief in phonics instruction in a context where learners do not have enough phonemic awareness. Rising phonemic awareness can keep consistent with an auditory approach now taking place in word learning, but this awareness needs to be instilled beforehand. Phonemic awareness is a requisite in both the literacy-building approach and the auditory approach in word learning.

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