

The use of audio-visual aids and hyper-pronunciation method in teaching English consonants to Japanese college students

Yuichi Todaka
Miyazaki Municipal University
e-mail: todaka@funatsuka.miyazaki-mu.ac.jp

Abstract

Since the 1980s, a number of professionals in the ESL/EFL field have investigated the role of pronunciation in the ESL/EFL curriculum. Applying the insights gained from the second language acquisition research, these efforts have focused on the integration of pronunciation teaching and learning into the communicative curriculum, with a shift towards overall intelligibility as the primary goal of pronunciation teaching and learning.

The present study reports on the efficacy of audio-visual aids and hyper-pronunciation training method in teaching the productions of English consonants to Japanese college students.

The talk will focus on the implications of the present study, and the presenter makes suggestions to teaching pronunciation to Japanese learners.

1 Introduction

Since the early 1980's there has been a renewed interest in the teaching and learning of pronunciation in ESL settings, due to increased recognition of learner needs. Thus, many ESL programs have begun to focus on the integration of pronunciation teaching into the communicative curriculum, with the development of overall communicative skills as the goal. On the other hand, this approach to pronunciation teaching in Japan has been neglected due to various linguistic, sociocultural and institutional factors. Uppermost is the continuing importance of the English section of the university entrance exams, in which reading, writing and grammar questions predominate. Furthermore, most classes have been taught with the instructor as the sole communicator and the learners as passive listeners throughout class periods. Lack of contact hours for learners has also hindered the adoption of the new pronunciation-focused approach to teaching communicative skills. Because of these constraints, Japanese learners of English have not made sufficient improvement in English pronunciation, nor have they developed satisfactory communicative skills in either L1 or L2. However, these skills should not be overlooked if Japan intends for its learner population to develop international perspectives. Although some modifications to the education system have been made (e.g. native English speakers assist Japanese English teachers in classes), students have made little apparent progress in their speaking and listening proficiency. In addition, very few pronunciation lessons have been incorporated into English classes.

Despite these difficulties, several studies conducted in Japan have reported the efficacy of pronunciation teaching to Japanese learners of English. For instance, Matsui (1995) investigated the effectiveness of visual aids on teaching certain English speech sounds. She reported that visual and auditory input lead to a substantial improvement in the pronunciation of labial velar semivowel sound, /w/ by Japanese college students. In addition, Todaka (1995) reported the efficacy of hyper-pronunciation training to Japanese college students.

In Japan, most students start to study English at the age of 13. Therefore, it is unlikely that learners will acquire English without developing a foreign accent if Flege and Fletcher's (1992) findings are considered valid. This, however, should not be regarded as an indication that learners can not make any improvement in the production of English sounds, as Matsui (1995) and Todaka (1995) reported. Furthermore, the general point of agreement among advocates (Celce-Murcia, 1987; Morely, 1991, 1994; Wong, 1987) of pronunciation teaching in recent years is that 'intelligibility' rather than native-speaker accuracy is considered the primary goal. It is, therefore, essential for EFL teachers in Japan not to underestimate the adult learners' potentialities for better pronunciation of the target language and to make efforts to help the learners achieve their goal.

When L2 learners of English practice the pronunciation of the target language, they focus on individual sounds by listening to and repeating model sounds, words and phrases. However, such practice has not produced satisfactory results (Celce-Murcia, 1987). The suggestions in the present study are, therefore, based upon the assumption that the general aspects (e.g., aerodynamic feature, articulatory settings) of the target language should be taught as well as conventional segmental and suprasegmental features.

A series of studies designed to improve the teaching and learning of English pronunciation have been conducted at Miyazaki Municipal University. Based on the prior diagnostic evaluation of our learners' pronunciation, it was found that the major problems of our students lie in the suprasegmentals and the pronunciation of consonants. The first of a series, therefore, focused on rhythmic and intonation aspects, and found audio-visual aids and hyper-pronunciation training method to be effective. The present study, therefore, reports on the efficacy of audio-visual aids and hyper-pronunciation training method in teaching the pronunciation of English consonants to Japanese college students.

Hyper-pronunciation training method is a way to encourage learners to be aware of their own speech production/pronunciation by having them focus on general pronunciation aspects. The intent is to help learners understand what they are doing, how they are doing, and why they are doing when they speak the target language. Learners are, thus, asked to carry out various activities in a slightly exaggerated manner. The primary reason for adopting this method is that learners find it difficult not only to notice subtle L1/L2 differences, but also to notice changes in their own speech patterns. Furthermore, we believe that second language learners benefit from positive attitudes and that negative attitudes may lead to decreased motivation and in all likelihood, because of decreased activeness and interaction, to unsuccessful attainment of proficiency. It is, therefore, very important for instructors to have Japanese learners of English understand that adults learning a foreign language can really only make progress by learning from making mistakes and actively participating in their own learning. Since inter-learner variability has been found to be significant (cf. Yule and MacDonald, 1994), teaching assistants took part in the training sessions to meet individual needs.

Another driving force for the above method comes from the fact that learners' cognitive styles towards learning English in Japan have been shaped by the years' of passive learning in elementary, junior and senior high schools. Therefore, Japanese learners of English lack the ability to cope with the various obstacles they need to overcome to be successful communicators. In addition, we firmly believe that Japanese learners of English would likely never communicate productively at all if they only ventured to speak until they were absolutely certain of the total correctness of their utterances. It is, thus, crucial for instructors in Japan to help lift the psychological barriers that hinder learners from asking more questions, actively participating in class activities, and developing self-monitoring and self-correction skills. The hyper-pronunciation training method, therefore, emphasizes learners' full participation in class activities to develop necessary skills to become more independent language learners.

The other driving force for this approach is derived from the finding that "individuals can imitate and selectively modify voice quality settings-long-term articulatory postures-to effect a global change in their accent, often resulting in a more authentic impression of a target language accent (Esling, 1994: 51)." Though it is not easy to point out voice quality differences between Japanese and English, Todaka (1995) studied Japanese and American English bilinguals and found the followings: (1) female speakers employed a breathier laryngeal setting in Japanese than in English; (2) all speakers used a higher pitch in Japanese than in English; and (3) all speakers used a wider vowel space in English than in Japanese. In addition, various researchers (cf. Matsui et al., 1993; Misono, 1995) reported the insufficient productions of aspiration and friction noises by Japanese learners of English. Todaka (1993) examined some of the English intonation contours produced by Japanese learners of English and found their pitch ranges to be much smaller than those of native English speakers. Taken all together, the effective use of pulmonic air, and the proper understanding of the functions of articulators are focused. The focus is, therefore, on the differences of

general characteristics (e.g., noise production, vowel space) between L1 and L2, rather than the similarities. The general characteristics are those features that affect sets of sounds or utterances as a whole rather than discrete articulatory points.

The fundamental concept of our teaching method is dealt with in the next section.

2 Instructional guidelines

The process of speech production is said to be comprised of three stages. First, various abdominal and laryngeal muscles work in such a way that air flows in and out of the body. Next, within the larynx at the top of the wind pipe, the vocal cords act as valves to control the air flow. The vocal cords, working together with the respiratory muscles, provide voicing, control pitch, and voice quality. Finally, the vocal tract and nasal tract above the larynx determine in large part the acoustical properties of the sounds produced (Wang, 1989).

The primary source of acoustic energy depends, therefore, upon pulmonic air. The effective use of the pulmonic air enables the learner produce various sounds of a language. Especially, pulmonic air pressure created at various articulatory points in the vocal tract affects the way in which acoustic properties of individual sounds are made. It's been reported that pulmonic air pressure is, in general, lower in the production of Japanese than that of English (cf. Ishiki et al., 1993). Since it is important for learners to understand the effective use of the source of acoustic energy when they produce English consonants, a hyper-training method proposed by Todaka (1995) is used. In other words, general characteristics of the target features need to be taught first because the overall maneuvering of the speech production organs are said to be different (Honikman, 1964), and that the imposition of the mother tongue settings on L2 settings may make the acquisition of the target sounds difficult (Esling and Wong, 1983). In addition, we adopted a tutoring system in which one instructor works with 5 tutors (or teaching assistants) to provide greater individual attention to learners' needs during the training sessions, as mentioned earlier. It's been reported that teachers should help learners develop pronunciation awareness, monitoring skills, and learning strategies that enable them to gain intelligibility and confidence outside class (Morley, 1994). Furthermore, a Macintosh computer connected to a video converter for use with the LL projection system was used to provide visual reinforcement for the productions of English consonants for the subjects during the sessions, as being reported to be effective (Matsui, 1995), and an audio tape created under the guideline of the hyper-training method was also utilized during the sessions. Since it is crucial for learners to be able to apply the principles learned in the training sessions to real situations, a multi-level approach (i.e., from the most local-level, word-level, to discourse-level) to pronunciation teaching was also incorporated into the latter part of the training sessions. This global approach to teaching pronunciation has recently been advocated by many researchers (cf. Morley, 1994).

The following is the outline of the method we used in teaching pronunciation in the present study.

Outline of the teaching method

1. Kinesthetic Considerations (focusing on a feeling of articulation and speech production)

a. *aerodynamic practice (effective use of abdominal muscles)* - the fundamental principle of this activity lies in the realization of the differences of L1 and L2 productions. It is very important for learners to understand the effective use of the acoustic energy to be able to maintain the energy level up in spoken English.

b. *voice projection (effective use of energy)* - lack of confidence hinders learners from fully participating in class activities. It is, therefore, intended that learners are instructed to speak out in class (no mumbling).

c. *psychomotor relaxation (e.g., lip spreading/rounding, mouth opening)* - the fundamental principle of this activity lies in the understanding of the functions of various articulators while practicing pronunciation.

d. pitch/loudness control - the intent is to reinforce the learning of effective use of acoustic energy while focusing on pitch/loudness features, which in turn help learners facilitate the mastering of suprasegmental features.

II. Target Feature Considerations (e.g., aspiration/frication noises)

a. articulatory settings (visual aids) - the intent is to provide learners with the various settings of the target feature visually in order (1) to help them understand the L1 and L2 setting differences and (2) to help them develop study awareness.

b. recognition practice I (audio-visual aids, tape recorder) - the intent is (1) to help learners recognize the differences auditorily and (2) to develop self-monitoring skills. A slightly exaggerated version of the pronunciation of the target feature is utilized first to recognize the primary feature.

c. production practice I (audio-visual aids, tape recorder) - the intent is (1) to help learners produce the target feature effectively and (2) to develop self-monitoring skills. Silent production of the target feature is done several times to focus on the articulatory settings prior to actual production practice. In addition, learners are asked to produce the target sounds several times by varying articulatory settings to learn to hear the subtle differences as well as to produce them appropriately.

d. recognition practice II (audio-visual aids, tape recorder) - the intent is to help learners recognize the target sounds produced in words. learners listen to the target sounds produced in word-initial, word-medial, and word-final positions.

e. production practice II (audio-visual aids, tape recorder) - the intent is to help learners produce the target sounds effectively at the word level. The focus is on the target sounds and the articulatory settings. Silent production practice is reinforced.

f. recognition practice III (audio-visual aids, tape recorder) - the intent is to help learners recognize the target sounds produced in sentences.

g. production practice III (audio-visual aids, tape recorder) - the intent is to help learners produce the target sounds effectively at the word level. The focus is on the target sounds and the articulatory settings. Therefore, only the target sounds are first produced without the productions of vowels in each sentence. The focus is on the overall articulatory settings, and self-pronunciation adjustment strategies. As an assignment, learners are asked to read English passages aloud for thirty minutes a day to reinforce the learning.

h. recognition/production practice IV (tape recorder) - the intent is to help learners produce the target sounds effectively in semi-actual situations. This practice is done in the latter half of the sessions after students having developed confidence in producing the target sounds. Several speech tasks (e.g., self-introduction) are given and learners are asked to talk about the topics given. Each speech is recorded on a tape, and learners are asked to listen to their own speech to self-monitor it. Later learners work in pairs to give each other suggestions about the partner's recorded speech. Instructor and assistants guide learners in recognizing speech changes in themselves and in their classmates, paying attention to the positive changes rather than negative ones.

III. Affective Considerations

a. self-esteem and self-confidence - the intent is to encourage learners to gain self-esteem, self-confidence, knowledge of themselves and belief in their own capabilities for pronunciation. Thus, constant encouragements are given, and a comfortable classroom atmosphere is maintained.

b. risk-taking - the intent is to help learners be willing to try out hunches about pronunciation learning and take the risk of being wrong (let learners understand that it's OK to make mistakes in learning).

c. motivation - the intent is to help learner's motivational level kept high by having them take responsibilities in their own learning (let learners be active participants rather than passive recipients).

IV. Assessment (based on Goodwin et al's (1994) and Morley's (1994) suggestions)

a. *diagnostic evaluation* - The standardized diagnostic passage (Prator and Robinett, 1985) was used to gain information about our learners' difficulties at the outset of the training sessions.

b. *ongoing evaluation with feedback/peer feedback (tape recorder)* - The intent is to help learners develop monitoring skills and learning strategies as the instructor and teaching assistants evaluate learners' progress. In other words, learners are constantly guided in recognizing pronunciation changes taken place during the sessions. A comfortable classroom atmosphere is, therefore, a must to promote maximum teacher-student and student-student interactions.

c. *final assessment (individually)* - The same diagnostic passage was utilized to assess the learners' progress at the end of the sessions. The learners' progress is assessed auditorily by the instructor and teaching assistants. Assessment measures based on acoustic and auditory (i.e., native speakers' judgments) analyses are also frequently conducted to obtain the information about learners' progress on particular features objectively. In such a case, utterances containing the target features are selected and analyzed to reconfirm our auditory judgments on learners' achievement. In addition, learners are asked to assess their own progress by having them compare their pre-training data with the post-training data.

3 Conclusions

We are still at the initial stages of establishing an integrated pronunciation method in the English curriculum at Miyazaki Municipal University, and the institutional constraints and limitations mentioned above remain to be dealt with. We are, however, convinced that our approach to teaching English pronunciation can help Japanese learners of English gain confidence in their study, and achieve their target pronunciation goals. Acoustic and auditory evaluations of our learners' production of consonants seem to confirm the efficacy of the method described earlier. In addition, all the participants in our study told us informally that they enjoyed the sessions and that they learned the importance of (1) the general aspects of the target pronunciation, and (2) active learning. It is hoped that the present study can serve as a guide for future studies of English pronunciation teaching to Japanese learners of English.

References

- Celce-Murcia, M. (1987). Teaching pronunciation as communication. In J. Morley (ed.), *Current Perspectives on Pronunciation*, 1-12. Washington D. C.: Teachers of English to Speakers of Other Languages.
- Esling, J. (1994). Some perspectives on accent: range of voice quality variation, the periphery, and focusing. In J. Morley (ed.), *Pronunciation pedagogy and theory*, 49 - 63. VA: Teachers of English to Speakers of Other Languages.
- Esling, J. and Wong, R. (1983). Voice quality settings and the teaching of pronunciation. *Tesol Quarterly*, Vol.17(1), 89-95.
- Flege, J. and Fletcher, K. (1992). Talker and listener effects of degree of perceived foreign accent. *Journal of Acoustical Society of America*. 91(1), 370-389.
- Goodwin, J.; Brinton, D.; and Celce-Murcia, M. (1994). Pronunciation assessment in the ESL/EFL curriculum. In J. Morley (ed.), *Pronunciation pedagogy and theory*, 3 - 16. VA: Teachers of English to speakers of other languages.
- Honikman, B. (1964). Articulatory settings. In D. Abercrombie, D. B. Fry, P. A. D. MacCarthy, N. C. Scott and J. L. Trim (eds.), *In Honour of Daniel Jones*, , 73-84. London: Longman.
- Ishiki, M. and Matsui, C. (1993). *Eigo onseigaku: nihongotono hikakunite*. Tokyo: Kenkyusha.

- Matsui, J. (1995). The use of audio-visual aids in the language laboratory to teach lip-rounding. *Language Laboratory*, Vol.32, 169-176.
- Misono, K. (1995). *A study of English phonetics: theory and application*. Tokyo: Wako.
- Morley, J. (1991). The pronunciation component in teaching English to speakers of other languages. *Tesol quarterly* 25, 481 - 520.
- Morley, J. (1994). A Multidimensional Curriculum Design for Speech-Pronunciation Instruction. In J. Morley (ed.), *Pronunciation pedagogy and theory*, 66-91. VA: Teachers of English to Speakers of Other Languages.
- Prator, C. H. and Robinett, B. W. (1985). *Manual of American English pronunciation*. FL: Harcourt Brace Jovanovich.
- Todaka, Y. (1993). Japanese students' English intonation. *Bulletin of Miyazaki Municipal University*, vol. 1, no. 1, 23 - 47.
- Todaka, Y. (1995). A preliminary study of voice quality differences between Japanese and America English: some pedagogical suggestions. *JALT Journal*, Vol, 17, 261-268.
- Wang, W. (1989). *The basis of speech*. Tokyo: Kenkyusha.
- Wong, R. (1987). Learner variables and prepronunciation considerations in teaching pronunciation. In J. Morley (ed.), *Current Perspectives on Pronunciation*, 13 - 28. Washington D. C.: Teachers of English to Speakers of Other Languages.
- Yule, G. and Macdonald, D. (1994). The Effects of Pronunciation Teaching. In J. Morley (ed.), *Pronunciation pedagogy and theory*, 111-118. VA: Teachers of English to Speakers of Other Languages.