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[論文]

A Survey of Pronunciation Instruction by Japanese Teachers of English: Phonetic Knowledge and Teaching Practice

Yoko UCHIDA^{*1} and Junko SUGIMOTO^{*2}

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Abstract: It is essential that non-native English-speaking teachers in Japan acquire sufficient knowledge on pronunciation in conjunction with teaching skills, especially now that more spoken English is encouraged in the classroom and all English teaching is expected to be conducted in English. This paper presents our findings based on a questionnaire administered to 100 public junior high school teachers in Tokyo in 2015, focusing on teachers' phonetic knowledge and teaching practice, and provides suggestions for improvement. Popular teaching techniques were those feasible in a large class, including listening and repeating in unison. Both segmentals and suprasegmentals were instructed, and emphasis on phonics instruction was observed. In addition, certain areas of suprasegmentals, such as "focus," "sentence stress," and "rhythm," which are all important in communication yet require more knowledge and skills to teach, received less attention in class, compared to "relation between tones and sentence types," which is relatively simple to teach. We suggest that students be taught how to use dictionaries, and that *katakana* be used as an aid in instruction. Phonetic knowledge is especially important since it adds to the strengths of non-native English teachers.

Key words: non-native English teachers, questionnaire, pronunciation instruction, phonetic knowledge, phonetics in teacher training, English education in Japan

Introduction

With an increasing recognition of the importance of actual language use in the English classroom, English teachers in junior and senior high schools in Japan are now strongly encouraged by the government to conduct teaching in English. While they need to be more conscious of their own pronunciation, they also have to give their students feedback on pronunciation. Despite this recent policy change in teaching style, there does not seem to be enough assistance provided to teachers. There is no discussion taking place on what level of pronunciation they and their students should achieve. Moreover, very little time seems to be made available for pronunciation teaching.

Part of the problem may be attributed to the teacher training program teachers received in their studies at the university, which often fails to cover the areas of phonetics and/or pronunciation teaching. The authors, as instructors of university-level teacher-training courses, believe that the current situation needs to be ameliorated by examining what teachers know and teach on pronunciation, identifying the phonetic elements that need to be supplemented, and providing teachers with the necessary information, so that they will become more confident in English pronunciation in general, and can teach pronunciation more effectively.

i . English education and teachers in Japan

The status quo that surrounds English teachers in Japan can be described from various perspectives. Within the framework of the 6-3-3-4 school system in Japan (6 years of elementary school, 3 years of junior high school, 3 years of high school, and 4 years of university), English as a subject starts in junior high school (grades 7–9), and most students study English up to high school (grades 10–12).^{*3} One class, consisting of up to 40 students, is typically a monolingual classroom taught by one teacher who is a native Japanese speaker, with support from an assistant language teacher (ALT), an English speaker mainly from a country where English is spoken as the first language or one of the official languages (The Japan Exchange and Teaching Programme [JET Programme], 2017).

The English curricula of junior high schools and high schools should be in accordance with the "Course of Study," the curriculum guidelines specified by the Ministry of Education, Culture, Sports, Science, and Technology (MEXT, 2008), in which succinct descriptions of pronunciation instructions are provided. English textbooks are revised every four years and undergo governmental inspection.

Preservice junior high/high school teachers in Japan are required to take teacher-training courses at a college or

^{*1} Department of Maritime Systems Engineering, Tokyo University of Marine Science and Technology (TUMSAT), 2-1-6 Etchujima, Koto-ku, Tokyo 135-8533, Japan (東京海洋大学学術研究院海事システム工学部門)

^{*2} Department of English Language and Literature, University of the Sacred Heart, 4-3-1 Hiroo, Shibuya-ku, Tokyo 150-8938, Japan (聖心女子大学文学部英語英文学科)

^{*3} Promotion to teach the language to younger students has been taking place, and so-called "English activities" are currently provided at the elementary school level. As of 2018, English will be taught as a subject to 5th-6th graders, too.

university to acquire a teacher's certificate. Taking courses on phonetics or pronunciation teaching is not always mandatory, however; it is up to each university whether to include it in the curriculum. Thus, such a course may be optional or obligatory, and its length ranges from one semester to a whole year. Moreover, there are currently no clear guidelines as to what to teach in the teacher-training course. This means that a wide variability on the knowledge and background of phonetics as well as teaching skills is likely to exist among currently active teachers.

ii . Overview of previous research

Issues surrounding pronunciation instruction are investigated worldwide, and approaches including interviews (Jenkins, 2007; Macdonald, 2002), classroom observations (Baker, 2014), and textbook analysis (Burgess & Spencer, 2000), have been employed.

Another popular approach, the questionnaire, has been taken up by researchers not only in ESL countries such as Australia (Burns, 2006; Macdonald, 2002), Canada (Foote, Holtby, & Derwing, 2011), the United Kingdom (Burgess & Spencer, 2000), and the United States (Murphy, 1997) but also in EFL countries such as Colombia (Cohen & Fass, 2001), Cyprus (Hismanoglu & Hismanoglu, 2010), Greece (Sifakis & Sougari, 2005), and Japan (Orii-Akita, 2015; Shibata, Yokoyama, & Tara, 2008). There is also a joint project looking at 10 European countries (Henderson et al., 2012; Kirkova-Naskova et al., 2013).

1) Common problems regarding pronunciation teaching

The problem that is recurrently pointed out in questionnaire research is the lack of confidence in instruction and reluctance to take up pronunciation instruction, which is typically attributed to a lack of training, a lack of teaching materials, and the challenge of pronunciation assessment (Burns, 2006; Foote et al., 2011; Macdonald, 2002). This outcome seems to be more or less consistent across countries, and it is an issue shared by both native English-speaking (NES) teachers and non-native English-speaking (NNES) teachers. Shibata et al. (2008), for example, reported that half of the Japanese junior high and high school teachers surveyed lacked confidence in pronunciation instruction, which had a negative impact on actual teaching.

2) Non-native English speaking teachers' problems pertaining to pronunciation teaching

In addition to the problems described above, there is another problem peculiar to NNES teachers, which is a lack of confidence in *self-pronunciation*, or a sense of insecurity about the quality of self-pronunciation (Levis et al., 2016; Murphy, 2014a; Rajagopalan, 2005; Uchida & Sugimoto, 2016). Many NNES teachers/preservice teachers tend to set their pronunciation goal to native-like pronunciation (Jenkins, 2007; Timmis, 2002; Uchida & Sugimoto, 2017), which is now widely recognized to be unrealistic for most non-native English speakers (Celce-Murcia, Brinton, & Goodwin, 2010; Derwing & Munro, 2005). Uchida and Sugimoto (2017) found that the Japanese preservice teachers they studied tended to describe native-speaker accents with positive adjectives such as "correct,"

"perfect," "authentic," and "intelligible," whereas Japanese-accented English was given negative labels such as "bad habits," "difficult to understand," and "not acceptable." Thus, it seems crucial to raise teachers' confidence in self-pronunciation and also to change their negative attitudes toward Japanese-accented English.

3) Advantages of non-native English speaking teachers over native English-speaking teachers

Being a non-native English speaker does not necessarily work against teaching students effectively, however. NNES teachers should be made aware of the advantages they have as language teachers (Braine, 2010; Murphy, 2014a).

First, NNES teachers' experience of having been a language learner themselves and their knowledge of students' learning difficulties enable them to become more empathetic to their students. In addition, having the same L1 makes it possible for NNES teachers to predict what kind of L1 transfer is likely to take place by their students both in pronouncing and perceiving certain elements of English sounds. They can often offer them solutions in more understandable ways than NES teachers can.

Studies from the students' perspective have also supported this. For example, secondary students in Hong Kong pointed out the use of students' L1, understanding of students' difficulties and needs, and a closer relationship with teachers as some of the strengths NNES teachers have (Ma, 2012).

Linguistic, cultural, and emotional closeness to students can work favorably for NNES teachers in the sense that their English pronunciation is likely to be perceived as more attainable by the students. Murphy (2014b) in fact proposes setting up comprehensible (even if accented) non-native speakers' English as pronunciation models to be followed by ESL/EFL students who share the same L1.

4) Pronunciation instruction provided in the classroom

Some previous studies have reported popular pronunciation instruction techniques in the classroom. Hismanoglu and Hismanoglu (2010), for example, conducted a survey on popular pronunciation techniques adopted by language teachers in North Cyprus. They revealed that the teachers preferred traditional techniques such as reading aloud and use of dialogues over modern ones such as computer and the Internet, regardless of their experience of taking a pronunciation course in B.A. education, casting doubt on the effectiveness of teacher training in terms of promoting modern techniques. They also pointed out the teachers' tendency to teach in similar ways to how they themselves were taught when they were students.

Finding out the phonetic features that are taught in class is another topic frequently examined. Foote et al. (2011), for example, asked their participants to report activities they found to be most effective. They later categorized the responses based on the phonetic features involved, and found that activities learning about segmentals were favored over those focusing on suprasegmentals.

Surveys in Japan presented a list of phonetic categories to the respondents and asked them whether they teach the categories. Shibata et al. (2008) asked about five features: "phonetic symbols," "pronunciation-spelling relationship," "vowels and

consonants,” “stress/rhythm/ intonation,” and “sound change (e.g. weak form, assimilation).” Their results included observations that there is more emphasis placed on suprasegmentals than in the past, and that phonics is being taught more in junior high school than in high school, where phonetic symbols are taught instead.

Similarly, Orii-Akita (2015) examined the relationship between classroom instruction and teachers’ knowledge. Nine phonetic features were presented to Japanese junior high school teachers, and high correlations were found between frequency of teaching and amount of knowledge/skill with four features—“phonetic symbols,” “phonemes,” “phonics,” “chunking”—but not with the others. However, the relationship between teachers’ knowledge and actual instruction in class has not been fully clarified, one reason being that the number of features investigated has not been sufficient. For example, the feature “stress” could have been further subcategorized into “word stress,” “compound stress,” and “content/function words.”

iii. Objectives

The aim of the study is to learn about current teaching practices in the classroom and what phonetic knowledge teachers have, and to bring to light some possible ways of improving their pronunciation instruction. We specifically address the following two research questions:

1) *What are the popular types of pronunciation teaching techniques?*

This question can be further investigated by asking what kind of techniques of pronunciation teaching are popular in the classroom; what is behind preferred techniques; and if there is any possibility that some of the less popular techniques could be reconsidered and changed into useful learning techniques.

2) *What do the teachers know and what do they teach about English pronunciation?*

The question can be further explored by examining whether more emphasis is placed on segmentals or suprasegmentals, if teachers are strong or weak in certain areas, and if there are any phonetic features they should be more knowledgeable about in order to teach pronunciation more effectively.

Table 1. Topics of questions covered in the questionnaire

Topic of questions	# of questions
Part 1: English competence in general as teachers	2
Part 2: Pronunciation model and goal	7
Part 3: Confidence in their own pronunciation	5*
Part 4: Attitudes towards teaching pronunciation	10*
Part 5: Pronunciation teaching techniques in the classroom and students’ attitudes	4*
Part 6: Phonetic features taught in class	19
Part 7: Knowledge of phonetic features	19
Part 8: Teachers’ profiles	8

The asterisk next to the number indicates that one of the questions was open-ended.

Method

Table 1 shows the structure of the questionnaire, which consists of eight parts and a total of 74 questions. The questions created were based on the findings of a textbook analysis conducted by the authors (Sugimoto & Uchida, 2015), as well as similar surveys conducted both in Japan and outside of Japan in the past (Foote et al., 2011; Shibata et al., 2008). The question format included 4- or 5- point scale questions, multiple choice questions, yes/no questions, and open-ended questions. (For more details, please contact the authors. The original survey is available upon request.) The original questionnaire and all responses were in Japanese, and all the responses reported in this article have been translated into English by the authors. This article is reporting on the results and analyses of Parts 5, 6, and 7, which are relevant to techniques of pronunciation instruction, classroom instruction, and teachers’ phonetic knowledge. In addition, teachers’ comments on pronunciation instruction from the open-ended questions are incorporated in the report.

i. Procedure

In Part 5, the questionnaire asked the teachers about pronunciation-related teaching techniques that they use in the classroom. Thirteen techniques, selected based on questionnaire studies in the past and comments offered by three Japanese junior high school teachers who served as pilot participants, were included in the list, from which the teachers were asked to indicate the ones they actually use in class. When the respondents were using techniques not shown on the list, they were asked to write them down in the space provided.

In Part 6, 19 phonetic features (numbered [01]-[19] in Table 3) were presented to the respondents, and they were asked to indicate whether they teach them or not on a 4-point scale: 1 = applies very well; 2 = applies to some extent; 3 = does not apply; 4 = does not apply at all. The phonetic features were selected as relevant to pronunciation teaching in junior high school (Sugimoto & Uchida, 2015). Supplementary information was provided in the actual questionnaire so that the respondents would be able to have a better understanding of each item. For example, the phonetic features [01] *phonetic symbols* and [02] *vowels* were respectively presented in the following way:

[01] I teach phonetic symbols.

[02] I teach vowels. (e.g., I teach the distinction of *low-law*, *hot-hut-hat*, and *farm-firm*.)

See Appendix A for an exhaustive description.

Part 7 asked teachers whether they think they possess the knowledge necessary to teach pronunciation. Nineteen statements of phonetic knowledge, corresponding to the 19 phonetic features in Part 6, were presented, and this time, too, the teachers were asked to respond to each statement on a 4-point scale. Again, the actual questionnaire provided information that makes it easier for them to follow. For example, [01] *phonetic symbols* and [05] *Eng. and Jpn. syllable structures*, respectively, were presented in the following way:

[01] I have knowledge on phonetic symbols.

Table 2. Common pronunciation teaching techniques (# of responses)

← more popular technique		less popular technique →
❖ Read aloud passages in unison (96)	❖ Do shadowing (56)	❖ Play games (34)
❖ Listen and repeat words in unison (86)	❖ Check mouth shape and sagittal section diagrams (50)	❖ Use <i>katakana</i> (26)
❖ Correct pronunciation errors on the spot (76)	❖ Sing songs and chants (50)	❖ Instruct individually (25)
❖ Listen and repeat phrases/sentences in unison (72)	❖ Do pronunciation exercises in textbooks (47)	❖ Use a dictionary to check pronunciation (22)
❖ Teach phonics (70)		

[05] I can explain the difference between English and Japanese syllable structures. (e.g., There are no consonant clusters or syllables that end with consonants.)

Note that different wording was used in [05], [11], and [14] for instruction/knowledge of the same phonetic elements. Also note that [19] is the only case where the aims of the question are different between instruction and knowledge.

See Appendix B for an exhaustive description.

Three open-ended questions in Parts 3-5 allowed the teachers to give their opinions on pronunciation instruction, in addition to concerns about self-pronunciation and their observations of students' reactions to pronunciation instruction in the classroom.

ii . Participants

The participants were 119 public junior high school English teachers in Tokyo. The survey was carried out on a voluntary basis in July and August 2015: paper-based questionnaire forms were distributed to those who attended a teachers' summer workshop, and teachers from one school district received an electronic Word format copy.

From the responses from the 119 teachers, 19 of them had to be excluded because of missing data, and the description and analysis hereafter is based on the data collected from the remaining 100 teachers.

According to the information provided in Part 8, among the 100 teachers, 65 were female, and 35 were male. Eighty of them said they had experience of phonetics either in college, graduate school, or courses offered to active teachers. Sixty-three of them reported they had stayed abroad at least one month: one to six months = 31; six months to one year = 8; one to five years = 17; five to ten years = 4; more than ten years = 1; and unspecified = 2. The teaching experience varied from less than a year to more than 30 years, with a median of 15 years.

Results

This section presents the responses obtained from the 100 participants.

i . Techniques of pronunciation teaching

The 13 pronunciation teaching techniques in the list were: *check mouth shape and sagittal section diagrams*; *correct pronunciation errors on the spot*; *do pronunciation exercises in textbooks*; *play games*; *instruct individually*; *listen and repeat phrases/sentences in unison*; *listen and repeat words in unison*; *read aloud passages in unison*; *do shadowing*; *sing songs and chants*; *teach phonics*; *use a dictionary to check pronunciation*; and *use katakana*. The teachers chose and reported on all the techniques they use in class.

As is shown in Table 2, five techniques were selected by 70 or more respondents: *read aloud passages in unison* (96), *listen and repeat words in unison* (86), *correct pronunciation errors on the spot* (76), *listen and repeat phrases/sentences in unison* (72), and *teach phonics* (70). In contrast, four techniques were chosen by fewer than 40 respondents: *play games* (34), *use katakana* (26), *instruct individually* (25), and *use a dictionary to check pronunciation* (22).

Two teachers wrote that they use techniques other than those in the list. They were: *have students read aloud and check their pronunciation individually*, and *video record students' pronunciation and check it in the whole class*.

ii . Instruction of phonetic features

The results of Part 6 are shown in the left-hand columns of Table 3, which summarizes the responses on a 4-point scale obtained from the 100 teachers. Overall, most of the phonetic features appeared to be covered in class. The following five phonetic features showed particularly high answer rates: over 50% for "strongly agree" alone, and over 90% for "strongly agree/agree" combined: [08] *linking*, [07] *distinction of two forms of indefinite articles ("a"/"an")*, [17] *relationship between tones and sentence types*, [11] *correct placement of word stress*, and [09] *sound changes that occur in connected speech*. Four out of five are related to the sentence level. Meanwhile, the following three phonetic features showed a low

Table 3. Instruction and knowledge of 19 phonetic features

Instruction: I teach ...							Knowledge: I can explain ...						
1	2	3	4	M	SD	Phonetic features	1	2	3	4	M	SD	
8	13	42	37	3.08	0.91	[01] phonetic symbols	37	54	6	3	1.75	0.70	
29	39	26	6	2.09	0.89	[02] vowels	28	50	19	3	1.97	0.77	
38	47	13	2	1.79	0.74	[03] consonants	37	50	12	1	1.77	0.69	
40	37	15	8	1.91	0.93	[04] phonics	26	58	14	2	1.92	0.69	
38	41	16	5	1.88	0.86	[05] no extra vowel insertion	23	32	39	6	2.28	0.89	
						[05] Eng. and Jpn. syllable structures							
44	42	11	3	1.73	0.78	[06] rules of -e(s) ending pron.	39	48	11	2	1.76	0.73	
59	31	8	2	1.53	0.73	[07] distinction of "a" and "an"	54	41	5	0	1.51	0.59	
59	37	4	0	1.45	0.58	[08] linking	33	53	11	3	1.84	0.73	
51	40	8	1	1.59	0.68	[09] sound change in connected speech	31	51	16	2	1.89	0.74	
40	45	13	2	1.77	0.75	[10] sound deletion in connected speech	27	43	25	5	2.08	0.85	
51	42	6	1	1.57	0.66	[11] word stress placement	23	40	32	5	2.19	0.85	
						[11] word stress and suffixes rules							
13	42	36	9	2.41	0.83	[12] compound and phrasal stress	19	34	39	8	2.36	0.88	
26	45	22	7	2.10	0.87	[13] sentence stress	33	49	16	2	1.87	0.75	
31	51	16	2	1.89	0.74	[14] rhythm	19	40	34	7	2.29	0.86	
						[14] Eng. stressed-timed and Jpn. syllable-timed rhythm							
40	47	11	2	1.75	0.73	[15] thought groups	29	58	12	1	1.85	0.66	
24	45	24	7	2.14	0.86	[16] focus	35	54	9	2	1.78	0.69	
55	41	2	2	1.51	0.64	[17] tones and sentence types	54	42	4	0	1.50	0.58	
35	53	10	2	1.79	0.70	[18] how to pronounce with feelings	26	55	19	0	1.93	0.67	
9	31	32	28	2.79	0.96	[19] katakana							
						[19] check word stress in dictionary	64	32	4	0	1.40	0.57	

<1> = Applies very well; <2> = Applies to some extent; <3> = Does not apply; <4> = Does not apply at all

answer rate: under 20% for "strongly agree" alone, and under 55% for "strongly agree/agree" combined: [01] phonetic symbols, [19] katakana, and [12] stress placement on compounds and phrases.

iii. Knowledge of phonetic features

The data from Part 7 are shown in the right-hand columns of Table 3. For most statements, the respondents' answers were positive, which indicates that the teachers believe they possess the required knowledge. In particular, three questions showed a high percentage compared to the other features, with all showing a percentage of over 50% for "strongly agree" alone, and over 95% for "strongly agree/agree" combined: [19] check the placement of word stress using dictionary, [17] relation between tones and sentence types, and [07] distinction of "a" and "an." Meanwhile, the following four features showed a low response

rate, with a percentage lower than 25% for "strongly agree," and lower than 65% for "strongly agree/agree" combined: [12] difference between compound stress and phrasal stress, [14] difference between English stress-timed and Japanese syllable-timed rhythm, [05] difference between English and Japanese syllable structures, and [11] rules between word stress and suffixes.

iv. Relationship between instruction and knowledge

Fig. 1 was created to visualize the relationship between instruction and knowledge of respective phonetic features by plotting the averages of the responses. There seems to be a certain correspondence between instruction and knowledge. For example, [12] compound/phrasal stress shows a lower percentage for both instruction and knowledge, whereas [07] distinction of "a" and "an" and [17] the relationship of tones

and sentence type shows a high percentage for both instruction and knowledge. One exception is [01] *phonetic symbols*, which is the least commonly instructed, but the teachers claim to have sufficient knowledge of it. [11] *Word stress placement* somewhat deviates from the trend, as it is taught frequently but the teachers do not seem to have acquired the suffix rules. The same can be said about [05] *English and Japanese syllable structure* and [14] *English stress-timed and Japanese syllable-timed rhythm*.

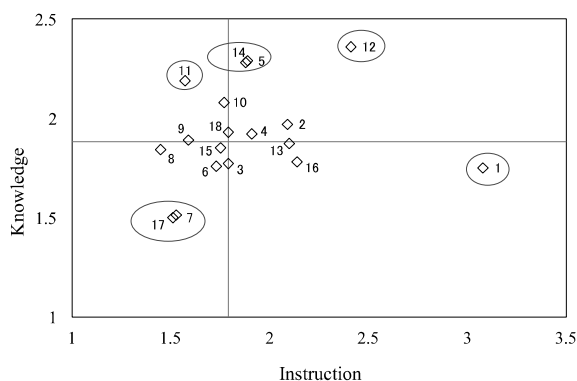


Fig. 1 Relationship between instruction and knowledge. The averages of 19 phonetic features collapsed across 100 participants' responses. 1 = Applies very well; 2 = Applies to some extent; 3 = Does not apply; 4 = Does not apply at all.

v. Teachers' questions and comments on pronunciation instruction

A total of 65 comments were contributed by teachers in the three open-ended questions, among which those relevant to knowledge and instruction can be categorized into the following five topics. (The comments were all written in Japanese in the original, and were translated by the authors.)

1) Lack of time

- I wish I could spare the time to check students' pronunciation individually.
- I cannot spend enough time on pronunciation practice because there are limited hours for English classes and I need to keep up with the other classes.

2) Difficulties in teaching

- It is not easy to effectively teach the distinction between strongly-pronounced words and weakly-pronounced words.
- Explanation, such as the position of the mouth in pronunciation, is challenging.
- Unless I would have more knowledge on phonetic symbols and phonics myself, I cannot teach my students effectively.

3) Difficulty of assessment

- Whatever taught in class needs to be tested, but since I

do not know how to assess the students' achievement in pronunciation, I cannot take it up in class.

4) Tips for pronunciation teaching

- Pair-work is effective for nurturing good relationships among students.
- I make use of listening exercises in the textbooks to make the students aware of the importance of sounds.

5) Issues regarding *katakana* transcription

- I reluctantly use *katakana* when my students cannot perceive the difference in English sounds.
- Is it OK to use *katakana* transcription for phonetic symbols?
- It is hard for students to learn correct English pronunciation of loanwords that are widespread for everyday use with *katakana* pronunciation (e.g., pizza, basketball, team).
- It is a pity some students use *katakana* to express pronunciation when they learn new words.

Discussion

This section attempts to answer the research questions based on the results described above. Important elements NNES teachers need to be aware of will be presented and discussed.

i. Pronunciation instruction techniques

Because of classroom size, it is understandable that the activities that can be conducted in unison such as *read aloud* and *listen and repeat* are favored. *Correct students' errors on the spot* is also among the top five. However, the frequency, quality, and content of feedback need further investigation.

When we turn to the less popular techniques, the avoidance of *using katakana* is observed, and we can see that *dictionaries* are also not used as an aid to learn pronunciation. The low response of *individual instruction* is possibly due to lack of time, as can be seen in the comments found in the open-ended questions.

The following is further observation regarding some selective techniques.

1) Little use of dictionary

The contrast between an emphasis on phonics and the little use of dictionaries is conspicuous. As was found in the knowledge/instruction part of the survey, the teachers claim to possess knowledge on phonetic symbols, and they also make use of dictionaries themselves in checking the stress placement of words. However, little instruction is provided to the students on how to check pronunciation in the dictionary. This is a pity, considering that checking the pronunciation of new words is an essential skill not only in junior high school but also later in senior high school. Since there is a speaking function as a standard feature of most electronic and online dictionaries nowadays, the active use of such dictionaries by students should be encouraged.

2) Preference of phonics over phonetic symbols

While English learners whose mother tongue is a European language are typically familiar with the alphabet from an early age, Japanese learners of English have to struggle to learn a set of new letters: Because the alphabet is different from the Japanese syllabary (*hiragana* or *katakana*), many students have difficulty grasping the new system. It is not hard to imagine that learning phonetic symbols in addition to the Latin alphabet can be too challenging a task for most Japanese learners of English. For these reasons, it is understandable that the introduction of phonics is preferred over teaching phonetic symbols (which is also indicated in the instruction data) in Japanese classrooms.

3) Avoidance of using *katakana*

Another tendency observed regarding the preference of pronunciation techniques, as taken from the instruction data and the individual comments in the open-ended questions, was the avoidance of the use of *katakana*. The following is our opinion on the issue.

First, it should be pointed out that *katakana* transcription can be helpful, and there is no reason to deny its use in some cases. It can be used as a reference point and a shortcut to achieve the end product pronunciation. For example, by indicating that the word “dawn” sounds not like “ダウ” but “ドーン” (which can be phonemically transcribed as /da.u.n/ and /do.o.n/, respectively), and demonstrating the English pronunciation in parallel, Japanese students will get closer to the appropriate pronunciation. To further reach the target pronunciation /dɔːn/ in English, the teacher may add the explanation that “The vowel has less lip rounding than ‘オー’ /o.o/, so make it a little bit like ‘アー’ /a.a/.”

Another proposal we can offer is to make good use of *katakana* by having students listen to English phrases such as “a little bit” and write the sounds that they hear in *katakana*. They should come up with an answer like “アレロベツ” /a.re.ro.be.Q/. From this response, teachers can explain that the English vowel /ɪ/ in /lɪtəl bɪt/ may sound somewhat similar to Japanese /e/, that the English /t/ sometimes becomes like Japanese /r/, and that the English /l/ can be pronounced with a dark quality that sounds like a Japanese /o/, without bringing up the technical terms “lax vowel,” “voiced /t/,” or “dark /l/.”

ii. Teachers’ knowledge and instruction

This study is one of few that attempted to explore in detail the relationship between teachers’ knowledge and actual instruction in the classroom, with as many as 19 phonetic features taken into account. Asking teachers their instruction and knowledge on each of the features enabled us to obtain more information on current teaching practices.

1) Not all suprasegmental features taught equally

As for the question of whether more emphasis is placed on segmentals or suprasegmentals, the results of the present study were overall in accordance with Shibata et al. (2008). Pronunciation teaching in Japan that tended to be restricted to the word level in the past has changed, and more emphasis on sentence-level instruction has been placed on pronunciation

teaching. Phonetic features related to the sentence level such as connected speech and intonation are among the ones that are taught more frequently [08, 09, 11, 17].

However, note that not all suprasegmental features are taught with equal weight. [17] *Relation between tones and sentence types* is taught more often, probably because the rules are both teachable and learnable: learners can choose which tone they use as long as they know the sentence structure (e.g. whether the sentence is a wh-question or Yes/No question).

In contrast, the rules for [16] *focus*, [13] *sentence stress*, and [14] *rhythm* are not that simple. In the case of sentence stress, while there are rules that content words (nouns, verbs, adjectives, adverbs) are pronounced with strong stress whereas function words (prepositions, articles, pronouns) are not, there are also a number of exceptions, and the application of the rules can be very complicated. This is true because the context, rhythm and intonation of the whole sentence, as well as the speaker’s intention, can all come into play and require sophisticated judgment.

Still, even with its complexity, the teaching of some of these suprasegmental features is unavoidable. This is because placement of appropriate focus is essential whether the listener is a native or non-native speaker of English, as is pointed out by Hahn (2004) and Jenkins (2000), and it is a phonetic feature that should be a priority for English learners. Teachers should receive sufficient training on this and become familiar with such features that are essential for effective communication.

2) Some phonetic features taught without sufficient knowledge

While the phonetic features teachers are knowledgeable about are covered in class overall (when teachers think it is necessary), it seems that certain phonetic features are taught without sufficient knowledge. One example is the knowledge of [11] *the relationship between word stress and suffixes*. Unlike NES teachers, NNES teachers need to learn word stress placement one word at a time in many cases; however, certain suffixes help learners detect stress placement, and knowing the rules of such stress placement can save time spent working with a dictionary. More importantly, this knowledge can be generalized for new words. By the same token, knowing [05] *English and Japanese syllable structures* and [14] *English stress-timed and Japanese syllable-timed rhythm* is quite useful in pronouncing longer utterances. Teachers often guide their students through practicing English stress and rhythm, but in some case, may lack knowledge of the concepts themselves.

As mentioned above, NNES teachers’ advantages over NES teachers include a better understanding of the problems learners experience in the process of acquiring English pronunciation. For example, English /l/-r/ pronunciation and distinction (Saito & Lyster, 2012; Takagi, 2002) is a problem area for most Japanese learners of English, and Japanese teachers can share their experience of overcoming this difficulty with their students. To maximize their advantage as NNES teachers, possessing the knowledge of how /l, r/ sounds are articulated in relation to Japanese /r/, how perceptually the three sounds are different, and the distribution of the three sounds, will be helpful in instruction (Dalton & Seidlhofer, 1994; Takebayashi, 1996).

Providing prospective teachers with sufficient phonetic knowledge should help teachers build confidence and teach effectively (Thomson, 2013).

iii. Limitations and future directions

One limitation of this study is the overall high positive responses to questions on instruction and knowledge. The teachers voluntarily agreed to participate in the survey, and this may imply that they are especially keen on pronunciation teaching; the results cannot be interpreted as representing the opinions of teachers in general. Additionally, it is often pointed out that self-reported results come out showing higher scores, since respondents may feel pressured to give a more desirable answer, even if it is actually not true (Dörnyei, 2010). The teachers' high responses showing that they teach and have knowledge on many of the items, therefore, cannot be accepted at face value.

With regard to further suggestions on what to know and what to teach, practical consideration should be made. For example, a lack of time (found in the comments in the open-ended questions) means a priority should be set on which phonetic elements to teach in the limited time available for pronunciation instruction in class. An easy-to-carry-out assessment for measuring student achievement should be established, too.

To further tease out what teachers know/do not know and teach/do not teach, as well as to identify what they need to know to be able to carry out pronunciation instruction effectively, approaches other than a questionnaire should be undertaken. In the future, measures such as interviews or classroom observations will further illuminate the situation.

Conclusion

This article focused on Japanese junior high school English teachers' knowledge and instruction of English pronunciation through a questionnaire, and made suggestions on how the instruction by NNES teachers in Japan can be improved. While some of the teaching practices reflected the teaching environment in the Japanese class (e.g., class size and a limited time available for pronunciation instruction) that may be hard to change, there were a number of cases where the teachers' lack of sufficient knowledge appears to be hindering otherwise more fruitful pronunciation teaching. Realizing that NNES teachers have great advantages over NES teachers in that they can share their experiences, Japanese teachers of English should base their teaching on a good understanding of the sounds of both English and Japanese.

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Appendix A. Nineteen statements presented to the teachers in Part 6 of the questionnaire.

The teachers indicated whether they teach them or not on a 4-point scale: 1 = applies very well; 2 = applies to some extent; 3 = does not apply; 4 = does not apply at all.

[01] I teach phonetic symbols.

[02] I teach vowels. (e.g., I teach the distinction of *low-law*, *hot-hut-hat*, and *farm-firm*.)

[03] I teach consonants. (e.g., I teach the distinction of *right-light*, *she-see*, and *mouse-mouth*.)

[04] I make use of phonics (the rules between pronunciation and spelling) when I teach.

[05] I teach not to insert extra vowels in consonant clusters. (e.g., When pronouncing *dream*, I teach not to insert an extra vowel in /dr-/ , so that it does not sound like “ドリーム” /doriiimu/.)

[06] I teach the rules for three ways to pronounce the suffix *-(e)s* for plurals and third person singulars (e.g., *likes*, *plays*, *watches*).

[07] I teach the distinction between the two forms of indefinite articles *a* and *an* (e.g., the decision of whether *a* or *an* comes before words such as *year* and *university*).

[08] I teach to link words smoothly (e.g., *look_up*, *good_time*).

[09] I teach the sound change that can occur in connected speech (e.g., *meet_you* [tj]→[tʃ], *did_you* [dj]→[dʒ]).

[10] I teach there are sounds that can be deleted in connected speech (e.g., *doesn't* [t] know, *goo* [d] luck).

- [11] I teach the correct placement of word stress (e.g., *guitar*, *calendar*, *umbrella*).
- [12] I teach the correct placement of stress on phrases that consist of two or more words (e.g., different stress placement for “a love song” and “a famous song”).
- [13] I teach the distinction of strongly pronounced words and weakly pronounced words in sentences. (e.g., She can dance, but she can't sing.)
- [14] I teach in such a way that the students will be aware of alteration of strong-weak rhythm in English. (e.g., Where did you go?
● · · ●)
- [15] I teach the division of a long English sentence when having students read aloud. (e.g., I went shopping // with my mother yesterday.)
- [16] I teach which words should be pronounced with emphasis in English sentences based on the context. (e.g., That's MY notebook, not YOURS.)
- [17] I teach the relationship between English sentence types and tones. (e.g., Yes-no questions are often pronounced with rising tone.)
- [18] I teach students how to express emotions in English pronunciation.
- [19] I make use of *katakana* in pronunciation teaching.
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Appendix B. Nineteen statements presented to the teachers in Part 7 of the questionnaire.

The teachers indicated whether they think they possess the knowledge on a 4-point scale: 1 = applies very well; 2 = applies to some extent; 3 = does not apply; 4 = does not apply at all.

- [01] I have knowledge of phonetic symbols.
- [02] I can explain vowels. (e.g., I can explain the distinction of *low-law*, *hot-hut-hat*, and *farm-firm*.)
- [03] I can explain consonants. (e.g., I can explain the distinction of *right-light*, *she-see*, and *mouse-mouth*.)
- [04] I have knowledge of phonics (the rules between pronunciation and spelling).
- [05] I can explain the difference between English and Japanese syllable structures. (e.g., There are no consonant clusters or syllables that end with consonants.)
- [06] I can explain the rules about the three ways to pronounce the suffix *-(e)s* for plurals and third person singulars. (e.g., I can explain when to use /s, z, ɪz/.)
- [07] I can explain the distinction between the two forms of indefinite articles *a* and *an* (e.g., the decision of whether *a* or *an* comes before words such as *year* and *university*).
- [08] I can point out where to link words to smoothly pronounce a sentence and explain the reasoning (e.g., *look_up*, *good_time*).
- [09] I can explain the sound change that can occur in connected speech (e.g., *meet_you* [tj]→[tʃ], *did_you* [dj]→[dʒ]).
- [10] I can point out the sounds that can be deleted in connected speech and explain the rules (e.g., *doesn't* [t] know, *goo[d]* luck).
- [11] I can explain the rules between word stress placement and suffixes. (e.g., The stress in words with *-ity* as in *minority*, *opportunity*, *responsibility* falls on a syllable before the suffix.)
- [12] I can explain the difference between phrasal stress and compound stress (e.g., different stress placement for “a love song” and “a famous song”).
- [13] I can explain which words are strongly pronounced and which words are weakly pronounced in a sentence (e.g., the distinction between content words and function words).
- [14] I can explain the difference between stress-timed rhythm in English and syllable-timed rhythm in Japanese.
- [15] I can explain the rules on division of a long English sentence when reading it aloud.
- [16] I can explain which words should be pronounced with emphasis in English sentences based on the context. (e.g., That's MY notebook, not YOURS).
- [17] I can explain the relationship between English sentence types and tones. (e.g., Yes-no questions are often pronounced with rising tone).
- [18] I can explain how to express emotions in English pronunciation.
- [19] When I am not sure of stress placement of a word, I check it in a dictionary (e.g., *guitar*, *calendar*, *umbrella*).
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発音指導に関する日本人英語教員対象のアンケート調査：音声知識と指導の実践

内田洋子^{*1}・杉本淳子^{*2}

(^{*1} 東京海洋大学学術研究院海事システム工学部門)
(^{*2} 聖心女子大学文学部英語英文学科)

英語による授業の実施が推進され教員と生徒ともに英語運用能力の向上が求められる中、英語教員の正しい音声知識と適切な発音指導能力の習得が必要不可欠となっている。本研究者は現役の英語教員がどのような音声指導を行いどれだけの音声知識を有しているかを解明し、改善策を提案することを目的に、2015年に中学校英語教員に対して発音指導に関するアンケート調査を実施した。100名の回答によると、大人数クラスで行いやすい全員での発音練習等が実践されることが多い活動であった。また以前と比べ、分節音と超分節的要素の両方の指導が行われ、フォニックス重視の指導が実施されていること等が明らかとなった。しかし詳細分析の結果、超分節的要素の中でも規則が明快で教えやすい「文タイプと音調の関係」と比べ、「文脈に基づいた語の強調」や「内容語と機能語に基づいた文強勢」の指導は、コミュニケーションの重要な要素であるにもかかわらず不十分であった。より良い教育効果のため、辞書の使い方に関する指導、カタカナの適切な活用を行うことも提案する。生徒と母語を共有する非母語話者英語教員にとって、音声知識を有することは発音指導において大きな強みとなる。

キーワード： 非母語話者の英語教師, アンケート調査, 音声指導, 音声知識, 教職音声学, 日本における英語教育