

**A Study on Pronunciation Instruction for Japanese Learners’
Acquiring Global Intelligibility: From the Viewpoint of English as an
International Language**

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Chapter 1

Introduction

1.1 Background of the Study

In the history of foreign/second language teaching, various teaching methods have been used, such as the Grammar-Translation and Audio-Lingual method in the past, to current the Communicative Approach. In Japan, in the time when Grammar-Translation and the Audio-Lingual methods were dominantly used, language form was excessively emphasized. However, with the spread of Communicative Language Teaching (CLT) since the 1980s, function and content of language have been emphasized over language forms, such as grammar and pronunciation. The message conveyed in oral communication, or oral out-put competence receives particular focus. As one measure to foster oral communication competence, MEXT (the Ministry of Education, Culture, Sports, Science and Technology) urges English classes to be done completely in English.

While the fostering of students' oral communication competence has been pushed forward, looking at my own experiences at teaching English at the high school and university levels, and in conducting research on current English education in Japan, pronunciation instruction seems to be less-prioritized than fostering oral out-put competence. Though the educational guideline of junior and senior high school stipulates paying attention to English phonological features and English textbooks cover the pronunciation of each phoneme, rhythm, stress, and intonation, pronunciation instruction seems to be left to each English teacher's discretion on its instruction method and content. One reason for this situation can be attributed to the pervasion of audio material, such as CDs, and more recently, digitized audio file, such as mp3. Learners have been encouraged to learn various phonological features of English by themselves through listening to the materials, and explicit teaching on pronunciation tends to be omitted. Also, English phonology is currently not a compulsory subject for English teacher training courses. This means that university students are able to attain a teacher's

certificate of English without knowledge of English phonology. Therefore, it is likely to happen that an English teacher who does not have systematic knowledge of English phonology nor confidence in his/her own pronunciation would avoid pronunciation instruction. Some research on junior/senior English teachers have shown that teachers are generally not confident in teaching pronunciation (e.g., Shibata et al., 2006).

In the current situation of Japanese English education, English education reform has been urged along with globalization. Fostering out-put competence, particularly oral out-put competence for international communication has become of much importance. In a time where the number of Japanese people, including business people and researchers introducing academic content to the world, who communicate with native and non-native speakers of English is rapidly increasing, pronunciation instruction should be emphasized given that pronunciation is essential in successful oral communication in English. Research have shown that error in pronunciation is the largest cause of communicative break-downs (e.g., Gallego, 1990; Jenkins, 2000). Therefore, it is of urgent necessity to make English phonology a compulsory subject for English teacher training courses, and to provide junior/senior English teachers with pronunciation training. It is also crucial to establish an effective pronunciation instruction guideline. However, before discussing these matters, an inevitable question related to pronunciation instruction arises; what level of pronunciation should a Japanese learner/speaker of English aim for?

Regarding the question, there has been an opinion that Japanese learners should aim for native-like pronunciation, such as RP (Received Pronunciation) and GA (General American). On the other hand, in this global time when there is a wide variety of English, there is also the opinion that Japanese learners can speak “Japanese English” (Suzuki, 2000).

Under the current situation of English as an international language, approximately a quarter of the world’s population has the capacity to communicate in English to a useful level as of 2000 (Crystal, 2003). The globalization of English is steadily growing, and the number of non-native English speakers using English as a second language exceeds the number of native speakers by a ratio of three to one (Crystal). There is also a wide

variety of English. Even in the Inner Circle defined by Kachru (1988), there are many varieties, such as British, American, Canadian, Australian, South African and so on. In the Outer Circle, there are also many varieties such as Indian and Malaysian English. A statistic shows that 74 % of oral English communications between tourists around the world do not involve an English native speaker. (Graddol, 2006). This means there is a higher chance that Japanese learners communicate with non-native speakers.

Given the current situation of English, it is now required for learners to become capable of communicating and making themselves understood by not only native speakers (NSs) but also non-native speakers (NNSs) who have various cultural backgrounds. In such time, it does not seem realistic to aim for native-speaker-like pronunciation as a pedagogic goal of English pronunciation, nor feasible for many adult Japanese learners after their so-called “critical period.” On the other hand, it is meaningless for Japanese learners to speak English which is understood only by Japanese or native speakers who are accustomed to Japanese English in this global era. Thus, this author claims that Japanese learners are encouraged to speak English which is understandable by people with various backgrounds, while maintaining their identity. In other words, Japanese learners are to aim at attaining internationally intelligible English pronunciation, or global intelligibility hereafter. This paper attempts to reveal what components are contained in global intelligibility, i.e., internationally intelligible English pronunciation, and provide guideline to foster the global intelligibility of Japanese learners’ English pronunciation.

1.2 Purpose of the Study

More than a half century ago, Abercrombie (1956) stated that general learners of English should aim for “comfortably intelligible” pronunciation, not for a “perfect” pronunciation. Comfortably intelligible pronunciation meant “a pronunciation which can be understood with little or no conscious effort on the part of the listener (p.37). Since then, there have been many studies regarding the factors of what determines intelligibility of English pronunciation (e.g., Gimson, 1978; Jenkins, 2000; Quirk, 1981).

This paper investigates the factors determining global intelligibility, particularly

for Japanese learners, based on the theoretical construct of intelligibility, by referring to previous literature. The factors are also investigated by conducting research and analysis of the data. A guideline for Japanese learners to guarantee global intelligibility of English pronunciation is then suggested. In summary, the purposes of the study are as follows:

- (1) To build the theoretical construct regarding factors determining global intelligibility.
- (2) To investigate the factors determining the global intelligibility of English pronunciation through analysis of Japanese university students' speech from both native and non-native speakers' points of view.
- (3) To suggest pedagogical guidelines which guarantee global intelligibility for Japanese learners based on results retrieved from previous articles and texts and the research conducted here.

1.3 Significance of the Study

Being intelligible in pronunciation has been viewed as a one-way process of a native speaker of English assessing whether a non-native speaker's utterance is understandable enough from a native speaker's perspective. Nelson (1982) clearly stated that "we want to examine whether a speaker of a non-native variety of English is intelligible to a speaker of a native variety, and if not, why not" (p.59). In communication in English, the interaction shown as C in the Figure 1.1 has been emphasized until recently. However, as already stated, this view is problematic since the globalization of the world has never been more rapid than currently, and English is steadily becoming a global language. Thus, there is a high probability that the interlocutor of a communication is a non-native speaker. More attention should be focused on interaction shown in D.

Figure 1.1

Speaker-Listener Intelligibility Matrix (Levis, 2005, p.382)

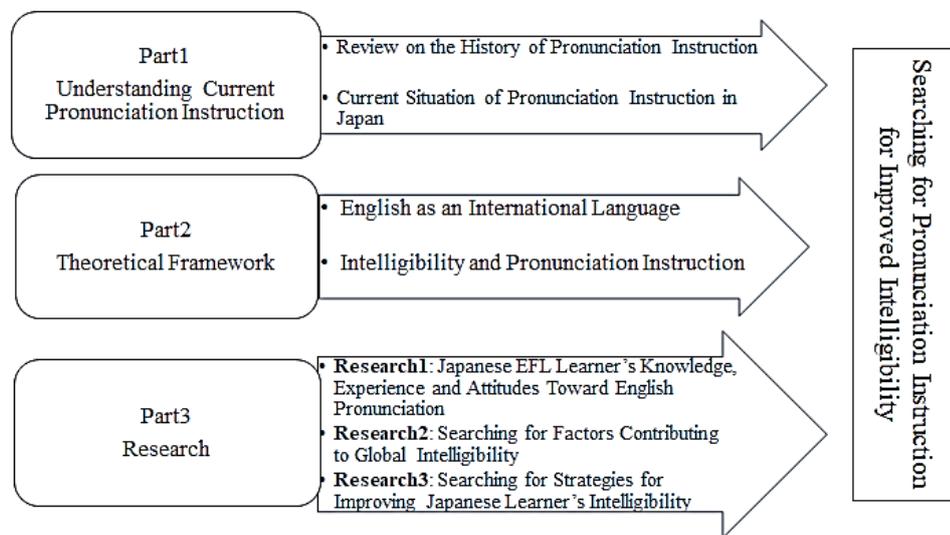
		LISTENER	
		Native Speaker	Nonnative Speaker
SPEAKER	Native Speaker	A. NS → NS	B. NS → NNS
	Nonnative Speaker	C. NNS → NS	D. NNS → NNS

Regarding Japanese EFL learners' phonological intelligibility, there are some studies on it from both native and non-native speakers' perspectives (e.g., Kashiwagi & Snider, 2013). However, still many studies have focused on it from the native speaker's point of view. Keeping in mind that being intelligible to both native and non-native speakers is crucial now, it is hoped that this paper leads to the better understanding of the factors defining the global intelligibility both in theoretical and practical levels, and bring an effective guideline for pronunciation instruction for pedagogical use.

1.4 Structure of the Dissertation

In order to fulfill the three purposes stated above, this paper is divided into three main parts as seen in the Figure 1.2. The first part (Part 1) reports the past and current situation regarding pronunciation instruction in L2 teaching with a purpose of gaining better understanding of issues related to pronunciation instruction both in the world and in Japan. The content includes the historical overview of pronunciation instruction in L2 teaching and current situation of pronunciation instruction in English language education in Japan, by examining how Educational Guidelines, major English textbooks and formal examinations cover pronunciation.

Figure 1.2
Outline of the Dissertation



The second part (Part 2) describes the theoretical construct of intelligibility of English pronunciation in terms of the fact that English is rapidly becoming a global language. Finally, in the third part (Part 3), in an attempt to determine the factors affecting global intelligibility, three studies are conducted. Based on the results, in the conclusion, a guideline which guarantees global intelligibility for Japanese learners is suggested.

Part 1

Overview

Chapter 2

History of Pronunciation Instruction in Foreign/Second Language Teaching and Research on Pronunciation

2.1 Introduction

Throughout history, foreign language education has experienced changes and modifications, depending on historical backgrounds, individual regional circumstances, and other factors. Various methodologies, approaches and techniques have been adopted based on these factors. As Richards and Rodgers (2014) point out, such changes have mainly focused on two factors. The first set of changes have been made around the goals of language teaching, such as a move toward oral proficiency rather than reading comprehension as the goal of language study. The second changes have been concerned with theories of the nature of language and of language learning.

Language education history has changed from the period where learners were merely exposed to a target language without any particular theoretical bases, to the period where approaches and methods have been developed based on scientific knowledge. The theoretical bases have been extended from linguistics to applied, psychological and sociolinguistics, and other related fields of science (Tazaki,1995).

This chapter first describes the historical changes that have taken place in foreign language education. Subsequently, the place and way of pronunciation instruction in each approach and method are stated. Finally, current pronunciation instruction research is discussed, and the future direction of pronunciation instruction is explored.

2.2 A Historical Review of Foreign/Second Language Teaching

2.2.1 Before 1850

In the middle ages in Europe, teaching Latin was the center of the educational curriculum, when Latin was still a real language. As time elapsed, Latin became a dead language that was only used for special cases. However, it remained an important subject

in the educational system. Latin was taught through translation and via a grammar-oriented approach. This teaching method is the so-called Grammar Translation Method (GTM).

GTM was used widely until the early of 19th century for foreign language teaching. In fact, it is still being used in a lot of ESL/EFL teaching. In GTM classes, teaching focus is mostly on reading and writing. A typical exercise is to translate sentences from the target language into the mother tongue. The learners are expected to familiarize themselves with foreign literature, and to deepen their understanding of their own L1 grammar by learning the grammatical rules of a foreign language. It is also expected that the learners develop intellectually by learning a foreign language in GTM (Larsen-Freeman, 2000).

In the classical teaching approach or method, represented by GTM in the 19th century, written language, not spoken language for actual usage, was prioritized. It is apparent that the result of learning through GTM is the inability to use the language for communication.

2.2.2 Reaction to the Traditional Approach

Between 1850 and 1880, there appeared educators and researchers who reacted against the traditional teaching method whose focus on written language with the result of producing learners who could not use the foreign language they had been studying. They claimed that oral proficiency should be prioritized. Berlitz (1852-1921), for instance, who was born in Germany, later went to America and then became an English teacher teaching immigrants there, claimed that learning a foreign language should be done using the same process that an infant undergoes to acquire his/her mother tongue and attempted to apply this process to language learning. He established the Berlitz School of Language which currently has schools in 70 countries (Murphy & Baker, 2015).

In Europe, Gouin and Marcel in France and Predergast in England also questioned the traditional teaching methods, such as GTM. They were interested in prioritizing speaking over reading and writing (Tazaki, 1995). Gouin developed a teaching approach

based on observation of infants and children using their mother tongues (Richards & Rodgers, 2014).

The methods proposed by the educators and researchers above stated (Gouin Method, or Psychological Method, Berlitz Methods, or Natural Method) are generally known as “Direct Method (s).” The basic principles of the Direct method are:

1. Instruction is given in the target foreign language only.
2. Acquiring the sound of the language is prioritized over writing and grammar learning.
3. Actions, pictures and demonstrations are used to make a direct link between a foreign language and meaning.
4. Grammar is learned inductively (Tazaki, 1995).

Successors of the Direct Method in the 20th century proposed so-called “naturalistic methods”, such as comprehension methods which set the term of exposing learners to the language sound before teaching them to speak. These methods include Asher (1977)’s Total Physical Response, and Krashen and Terrell (1996)’s Natural Approach.

Many researchers had criticized the Direct Method, and as Rivers (1968) pointed out, the main problem with the Direct Method is that it tried to apply the process of infants acquiring their mother tongue to adult or adolescent learners who had already established their L1 language habits. However, Tazaki (1995) states that it cannot be denied the method is still effective, particularly for introductory-level teaching. Also, Richards and Rodgers (2014) argue that “one of the lasting legacies of the Direct Method was the notion of ‘method’ itself”, and it presented “the first of many debates over how second and foreign languages should be taught” (p.14).

The stream of the Direct Method led to the so-called “Reform Movement” which was acknowledged as a milestone of foreign language teaching. In 1886, phoneticians, such as Henry Sweet in England, Wilhelm Viëtor in Germany, and Paul Passy in France, who researched and analyzed the sound of languages scientifically, established the International Phonetic Association in Paris. The Association then developed the International Phonetic Alphabet (IPA) in order to transcribe any languages in 1888.

These movements are referred to as “the Reform Movement” and they have had a great effect on foreign language teaching.

Walters (2009) states three reasons for considering the Reform Movement as important. The first is that it emphasized the importance of a scientific approach to selecting and dealing with the content of teaching a foreign language. The second is that it emphasized the importance of accurate pronunciation so that the learners could make themselves understood. The third is that the Reform Movement principles have formed a base for applied linguistics today.

Wilhelm Viëtor (1850-1918) and Henry Sweet (1845-1912) who were involved in the Reform Movement suggested that foreign language teaching should start with pronunciation instruction, and teachers needed the full-scale knowledge of phonology (Tazaki, 1995). Their claims were the same as the Direct Method in terms of prioritizing sounds of language. However, they were essentially different in terms of teaching a language in a scientific and organizational way, not by intuitively imitating sounds.

Later in the 19th century, Harold Palmer (1877-1949) who was the first director of the Institute for Research in English Teaching (IRET) in Japan and A.S. Hornby (1898-1978) also claimed that oral language should take precedent in foreign language teaching. They adopted the Reform Movement principles, such as teaching pronunciation by utilizing the International Phonetic Alphabet. They admitted some use of learners L1 in teaching and the role of translation, and this was an eclectic position. They established the scientific foundation of foreign language teaching (Richards & Rodgers, 2014; Tazaki, 1995). Their approach to language teaching is called the Oral Approach or Situational Language Teaching.

According to Richards and Rodgers (2014), the following are the main characteristics of the Oral Approach:

1. Language teaching begins with the spoken language. Material is taught orally before it is presented in written form.
2. The target language is the language of the classroom.
3. New language points are introduced and practiced situationally.

4. Vocabulary selection procedures are followed to ensure that an essential general service vocabulary is covered.
5. Items of grammar are graded following the principle that simple forms should be taught before complex ones.
6. Reading and writing are introduced once a sufficient lexical and grammatical basis is established. (p.47)

The influence of the Oral Approach is still seen in many ESL/EFL classrooms and textbooks. Richards and Rodgers (2014) state that one of the biggest legacies of the Oral Approach is its PPP (Presentation-Practice-Production) format. As highlighted up to this point, the new stream of a foreign language teaching as a reaction to the traditional approach provided the basic foundation for language teaching development thereafter.

2.2.3 Prosperity and Decline of Audio-Lingual Method Between 1940s and 1970

In the 1940s, there appeared the Audio-Lingual Method (ALM) in North America, which was supported by the theory of structural linguistics and behaviorism, and Situational Language Teaching in Great Britain which was a successor to the Oral Approach.

In structural linguistics, languages are approached in a scientific manner and its important tenet is that “the primary medium of language is oral: Speech is language” (Richards & Rodgers, 2014, p.63). Therefore, speech was thought of as the first priority of language teaching. Behaviorism also flourished at that point. Behaviorist-psychologist Skinner posited that language learning was a process of habit formation. When there is a stimulus, there is a response triggered by the stimulus. Then, when the response is repeated appropriately, it is reinforced.

Many linguists, such as Fries (1945), were influenced by the behaviorist perspective of the nature of foreign language learning, that learners respond to new learning content as stimulus, and the response becomes reinforced when the response is appropriate, by informing them that the response is correct.

Structural linguistics development led to an analysis of language structure, and the

findings of contrastive analysis were adopted into the syllabus. The method which values the sound of language and its structure is called the Audio-Lingual Method (ALM). Celce-Murcia (2013) points out that ALM is similar to the Direct Method but adds features from structuralism and behaviorism. She outlines the method as below:

- a. begins lessons with dialogs
- b. uses mimicry and memorization because it assumes that language is habit formation
- c. grammatical structures are sequenced
- d. grammar is taught inductively
- e. skills are sequenced: listening and speaking- reading and writing (postponed)
- f. pronunciation is stressed from the beginning
- g. vocabulary is severely limited in the initial stages
- h. great effort is made to prevent error
- i. language is often manipulated without regard to meaning or content
- j. the teacher's role can be compared to that of a dog trainer
- k. the teacher must be proficient only in the structures, vocabulary, etc. that she/he is teaching, since learning activities and materials are carefully controlled (pp.3-4)

ALM was the first language teaching method based on linguistics and psychology (Tazaki, 1995). It was dominant from the 1940s to the 1960s with its peak occurring during the 1960s. However, ALM began to be criticized for prioritizing the form of a language over the content. It was also claimed that it neglected the innate nature of language acquisition and human perceptual ability. Furthermore, a lot of learners who learned using the Audio-Lingual procedure claimed that the experience was boring and unsatisfying, and they could not use the skills acquired in the ALM outside of the classroom settings (Richards & Rodgers, 2014).

While ALM prospered, the Cognitive approach / Cognitive-Code-Learning (CCL) appeared in the 1960s based on Chomsky's transformational-generative grammar and

cognitive psychology as its theoretical foundation. The proponents of the cognitive approach emphasized understanding the structure and rules of the target language intellectually, and language learning as “an active mental process rather than a process of habit formation” (Murphy & Baker, 2015, p.47).

Other than CCL, there appeared various teaching methods in America in the 1970s. Representatives of these approaches include Community Language Learning, the Silent Way, Suggestopedia, and Comprehension approaches, such as Total Physical Response (TPR). Murphy and Baker (2015) call them the “designer methods of the 1970s” (p.50).

2.2.4 Advent of CLT and its Stream Toward Today

In the 1970s, as a reaction to CCL, researchers started to claim that learners did not become capable of communicating in the target language even after they had acquired the linguistic structure. It was also suggested that learners who learned in CCL could produce sentences accurately inside the classroom, but they could not use them properly in the outside world. That meant knowing the rules of linguistic usage was not sufficient (e.g., Widdowson, 1978).

Under these circumstances, Hymes (1971) proposed that communicative competence was necessary in order to be able to communicate, not just linguistic competence proposed by Chomsky. Richards and Rodgers (2014) explain the communicative competence as below:

The concept of communicative competence entails a much broader understanding of language as a means of getting things accomplished in an appropriate manner. ...essentially, language and communication are interdependent in the sense that language serve the purpose of communicating the speaker’s objectives. (pp.85-86)

In Europe, particularly in England, there was a functionalism tradition as a reaction to Chomsky and other CCL components’ formalism. Those functional linguists, such as Firth and Halliday, perceived languages in their social context and pursued research into language acquisition, discourse analysis and pragmatics. Additionally, Speech Act

theory proposed by Austin, Searle and Grice, approached language usage in terms of its functional aspect (Tazaki, 1995).

In the 1970s, political and economic exchange flourished among EC countries. As a result, having foreign language proficiency became more and more important. These circumstances led to the Council of Europe's project formed by specialists, such as Van Ek and Wilkins. The project attempted to guarantee European adult citizens a threshold level of foreign-language ability for communication. The project analyzed learners' social, vocational and academic needs and formed a unit/credit system. In an attempt to establish the system, a notional/functional syllabus was suggested.

Those changes brought about a shift from a linguistic structure-centered approach, such as Cognitive-Code-Learning to Communicative Approach in the late 1970s to the beginning of the 1980s (Larsen-Freeman, 2000).

Communicative Language Teaching (CLT) is a teaching method that applies the theory of Communicative Approach with acquiring communicative competence as a goal of teaching and learning. In CLT, the function of language is prioritized over the form of language, and a functional syllabus is generally adopted in CLT. Richards and Rodgers (2014) describe the characteristics of the communicative view of language as below:

1. Language is a system for the expression of meaning.
2. The primary function of language is to allow interaction and communication.
3. The structure of language reflects its functional and communicative uses.
4. The primary units of language are not merely its grammatical and structural features, but categories of functional and communicative meaning as exemplified in discourse.
5. Communicative competence entails knowing how to use language for a range of different purposes and functions as well as the following dimensions of language knowledge.
 - Knowing how to vary use of language according to the setting and the participants (e.g., knowing when to use formal and informal speech or when to

use language appropriately for written as opposed to spoken communication)

- Knowing how to produce and understand different types of texts (e.g., narratives, reports, interview, conversations)
- Knowing how to maintain communication despite having limitations in one's language knowledge (e.g., through using different kinds of communication strategies). (pp. 89-90)

CLT is different from other existing methods in the sense that there is “no single text or authority on it emerged, nor any single model that was universally accepted as authoritative” (Richards & Rodgers, 2014, p.86). However, as Littlewood (1981) points out, one of its characteristic features is that it puts systematic focus on functional as well as structural aspects of language.

Furthermore, Richards and Rodgers (2014) describe the basic elements of learning theory of CLT, which were inferred from CLT practices as follows:

the communication principle: activities that involve real communication promote learning.

the task principle: activities in which language is used for carrying out meaningful tasks promote learning.

the meaningfulness principle: language that is meaningful to the learner supports the learning process. Learning activities are consequently selected according to how well they engage the learner in meaningful and authentic language use (rather than merely mechanical practice of language patterns). (p.90)

In CLT, since individual learning activity is considered important, the syllabus, which is the framework of conducting each activity is the center of discussion. For example, Wilkins (1976)'s notional syllabus, which stipulated semantic-grammatical categories (e.g., frequency, motion, location) and communicative functional categories is the first and most influential syllabus (Richards & Rodgers, 2014). Various syllabuses were proposed thereafter.

The most salient feature of a CLT classroom is that all the learning activities are designed with communicative intent in mind. Learners are expected to use the target language through communicative activities, such as games, role-playing and problem-solving tasks based on its learning principle, that is, meaningful communication promotes language learning.

CLT has been pervasive until now and there have been various approaches which derived from this approach. For example, CBI (content-based instruction) has its origins in French immersion education in Canada and was systemized in North America in the 1980s. It is known as an approach used by native speaker teachers who teach ESL learners, mostly in North America. Brinton (2003) states that the distinguishing feature of CBI is that the concurrent learning of a specific content and related language use skills in a content driven curriculum.

On the other hand, CLIL (Content and Language Integrated Learning) started in 1995 when the Council of Europe set a foreign language education goal of plurilingualism, fostering European citizens who are able to communicate in languages other than their own. CLIL has mainly been adopted in the EFL environment, where English is taught as a foreign language. In the CLIL approach, non-native English teachers normally teach subjects other than English by using English. Dalton-Puffer (2011) states that “CLIL can be described as an educational approach where curricular content is taught through the medium of a foreign language, typically to students participating in some form of mainstream education at the primary, secondary, or tertiary level” (p.183). In addition, TBLT (Task-Based Language Teaching) is the approach where “the primary unit for both designing a language programme and for planning individual lessons should be a ‘task’” (Ellis, 2009, p.223).

As briefly stated, various approaches and methods have been developed based on CLT and its theoretical foundation. These approaches and methods are widespread nowadays. At the same time, past popular approaches and methods are still relevant and of importance in the current language learning environment. Thus, current ESL/EFL teachers tend to take rather eclectic and flexible approaches according to their own learners and situations. The next section investigates how pronunciation instruction has

been regarded and dealt with in each approach and method.

2.3 Place of Pronunciation Instruction in Main Methods

In the history of language teaching, pronunciation had not been understood as well as grammar and vocabulary nor studied systematically by linguists, language teachers and other related specialists until shortly before the beginning of the 20th century. Kelly (1969), for instance, stated that pronunciation instruction had received relative neglect in the language classroom compared to grammar and vocabulary. However, as stated in the preceding section, the situation changed shortly before the Reform Movement.

Murphy and Baker (2015) show four *Waves* of pronunciation instruction during the past 150 years as follows:

- Wave 1.* A “*precursor*” period beginning in the mid-1800s, during which pedagogical specialists began to reject conventional conceptions of language teaching in favour of an intuitively-based emphasis on spoken communication.
- Wave 2.* The *reform movement* initiated in the late 1800s that saw the development of the International Phonetic Alphabet (IPA) and the application of principles from phonetics to language pedagogy.
- Wave 3.* The influence of Communicative Language Teaching (CLT), which, by the mid-1980s, spawned the development of new teaching materials to facilitate the incorporation of pronunciation in CLT classrooms.
- Wave 4.* The application of empirical research to pronunciation instruction, which began in earnest in the 1990s.

Table 2.1 shows the pronunciation teaching approaches of the main methods (based on Celce-Murcia et al., 1996; and Larsen-Freeman, 2000). The next section describes these waves along with the place of pronunciation instruction in main methods and approaches.

Table 2.1*Pronunciation Teaching Approaches of Main Methods*

Years	Method	Its philosophy of pronunciation teaching
Since the Middle Ages	The Grammar-Translation Method	Oral communication is not the primary goal of language instruction. Therefore little attention is given to speaking, and almost none to pronunciation.
the late 1800s and early 1900s	The Direct Method	Oral communication is seen as basis and pronunciation should be worked on right from the beginning of language instruction.
1930-1960	The Audio-Lingual Method /Oral Approach	Pronunciation is very important and is taught explicitly from the start. Teachers should provide students with a good model. Teachers used a visual transcription system or articulation chart.
1960s	The Cognitive Approach	It deemphasized pronunciation in favor of grammar and vocabulary because, its advocates argued (1) native-like pronunciation was an unrealistic objective and (2) time would be better spent on teaching more learnable items.
1970s	The Silent Way	Language is not learned by repeating after a model. With visual cues the teacher helps students develop their own inner "criteria" for correctness. They must trust and be responsible for their own production in the target language.
	Community Language Learning	The pronunciation syllabus is primarily students initiated and designed. Students decide what they want to practice and use the teacher as a resource.
mid-to late 1970s-Present	Communicative Approach	Students should work with language at the discourse or suprasentential level. The ultimate goal is communication. This focus on language as communication brings renewed urgency to the teaching of intelligible pronunciation.

2.3.1 From Traditional Grammar Translation Methods to the Direct Method

As seen in the preceding section, before *Wave 1*, until the middle of 19th century, written language was prioritized over spoken language and learners were expected to read and translate literature. Therefore, there was little focus on speaking. In these traditional methods, such as the Grammar Translation Methods and reading-based approaches, oral communication was not the main goal of teaching. Thus, the sounds of language received little attention. When pronunciation is taught in the traditional

approaches, individual word pronunciation is practiced by repeating monotonously and there is almost no instruction on the suprasegmental features of a language, such as intonation and rhythm (Ogawa, 1982).

In the 1850s, as stated in the preceding section, specialists and researchers emerged who claimed oral proficiency as a primary goal of language teaching, such as Berlitz, Gouin, Marcel, Pedergast. Murphy and Baker (2015) call this movement *Wave 1*, the first wave of pronunciation teaching. The influence of the specialists was rather limited in language classrooms, but its stream led to the more widespread teaching method, that is, the Direct Method which appeared in the end of 19th century.

In the Direct Method, pronunciation received attention from the beginning of instruction. Pronunciation is taught through intuition and imitation. Students were encouraged to imitate the model presented by the teacher or recordings as accurately as possible and repeat them. Celce-Murcia et al. (1996) define the teaching approach represented by the Direct Method as “an intuitive-imitative approach”.

An intuitive-imitative approach depends on the learner’s ability to listen to and imitate the rhythms and sounds of the target language without the intervention of any explicit information; it also presupposes the availability of good models to listen to, a possibility that has been enhanced by the availability first of phonograph records, then tape recorders and language labs in the mid-twenties century, and more recently of audio-and videocassettes and compact discs. (p.2)

The Direct Method later led to naturalistic methods in the 20th century. The examples of the methods are Asher (1977)’s Total Physical Response, and Krashen and Terrell (1996)’s Natural Approach. The salient feature of these methods is that they assumed learners received and understood input without production at the first stage of learning, and production then occurred naturally.

2.3.2 Reform Movement

Between the 1880s and the beginning of the 1900s, the *Wave 2*, or the second wave

of pronunciation teaching occurred. The Reform movement, which was a milestone of pronunciation instruction, occurred during this period. As a part of the movement, the development of the International Phonetic Alphabet by phoneticians, such as Henry Sweet, Wilhelm Viëtor and Paul Passy had a particularly strong impact on foreign language education thereafter.

Celce-Murcia et al. (1996) state that “A phonetic alphabet made it possible to accurately represent the sounds of any language because, for the first time, there was a consistent one-to-one relationship between a written symbol and the sound it represented” (p.3). Setter and Jenkins (2005) also admit that IPA (International Phonetic Alphabet) is “capable of representing the full inventory of sounds of all known languages” and “The pervasiveness of the IPA in pronunciation teaching and research is attested by the fact that, over a hundred years later, it is still the universally acknowledged system of phonetic transcription” (p.2).

Celce-Murcia et al. (1996) state that phoneticians involved in the International Phonetic Association proposed the following principles of language teaching and that they had a great influence on current language teaching, particularly pronunciation teaching. The principles are seen below:

- The spoken form of a language is primary and should be taught first.
- The findings of phonetics should be applied in language teaching.
- Teachers must have a solid training in phonetics.
- Learners should be given phonetic training to establish good speech habit. (p.3)

Although there were times when pronunciation instruction was dismissed after the Reform Movement, the principles are still evident (Setter & Jenkins, 2005). The pronunciation instruction approach based on these principles is dubbed “an analytic-linguistic approach” in contrast to “an intuitive-imitative” approach suggested by Celce-Murcia et al. (1996). According to them, an analytic-linguistic approach “utilizes information and tools such as phonetic alphabet, articulatory descriptions, charts of the vocal apparatus, contrastive information, and other aids to supplement listening,

imitation and production,” and it “explicitly informs the learner of and focuses attention on the sounds and rhythms of the target language” (p.2).

In many of today’s pronunciation-dedicated language classes, both the intuitive-imitative approach and analytic-linguistic approach have been integrated and are used (Murphy & Baker, 2015).

2.3.3 Audio-Lingual Method and Situational Language Teaching

The time period between the Reform Movement in the 1920s and the 1950s, when the Audio-Lingual Method (ALM) in America and Situational Language Teaching in Great Britain appeared, is called “a period of consolidation” by Murphy and Baker (2015). According to them, a lot of research on native English speakers’ pronunciation was conducted in terms of both segmental and suprasegmental levels during this time.

In the 1950s, Abercrombie (1956) claimed the necessity of “comfortably intelligible pronunciation” (p.37). Abercrombie’s view of pronunciation goals has had a great impact on the current goals of pronunciation instruction (e.g., Munro & Derwing, 2011). In 1950s, Audio-Lingual Method also appeared and flourished. In ALM, oral skills were prioritized and pronunciation was taught explicitly from the beginning of instruction (Larsen-Freeman, 2000). Its pronunciation instruction is similar to the Direct Method in the way that a teacher presents a model of pronunciation, and learners imitate the model, and repeat them, but different in the way a teacher teaches pronunciation explicitly by using phonetic information such as the IPA system and an articulatory chart. ALM is an analytic-linguistic approach.

One of the most characteristic activities of ALM is presenting learners with minimal pairs, that is, “pairs of words that differ in meaning on the basis of a change in only one sound” (Avery & Ehrlich, 1992, p.40). In ALM, pronunciation accuracy is crucial. Contrastive analysis predicts the difficulty of pronunciation for learners according to their L1. These difficult phonemes are practiced by presenting and having learners practice the difference by repeating. The following are examples:

/θ/	/s/
thank	sank
think	sink
bath	bass
math	mass

As stated, pronunciation instruction was the priority of language teaching both in the ALM and Oral Approaches along with accurate grammar. The order of pronunciation instruction then was started from segmentals and then moved to suprasegmentals. That reflected the view of language and language learning approaches of ALM and Oral Approach. Morley (1991) explains the view as follows:

In general, language was viewed as consisting of hierarchies of structurally related items for encoding meaning. Language learning was viewed as mastering these forms, the building blocks of the language, along with the combining rules for phonemes, morphemes, words, phrases, sentences. The pronunciation class in this was one that gave primary attention to phonemes and their meaningful contrasts, environmental allophonic variations, and combinatory phonetic rules, along with structurally based attention to stress, rhythm, and intonation. (pp.484-485)

2.3.4 Decline of Pronunciation Instruction and Advent of Various Methods

As stated in the preceding section, Cognitive-Code-Learning (CCL), which had its heyday in the 1960s, emphasized grammar and vocabulary. On the other hand, little attention was paid to pronunciation due to the following reasons. Firstly, it had been argued that native-like pronunciation was an unrealistic objective and could not be achieved (Scovel, 1969). Secondly, as Celce-Murcia et al. (1996) discuss, it was believed that pronunciation was less learnable than other items such as grammatical structures and words.

Under such circumstances, there was wide debate over the importance of pronunciation as an instructional focus and whether pronunciation was teachable, or

learnable in the course of ESL curriculum between the end of the 1960s and the beginning of the 1970s. As a result, pronunciation instruction received less attention in many programs, ESL curriculum and materials (Morley, 1991). Seidlhofer (2001) explains during that time, that “pronunciation lost its unquestioned role as a pivotal component in the curriculum, and class time spent on pronunciation was greatly reduced or even dispensed with altogether” (p.57).

However, according to Murphy and Baker (2015), CCL perspectives contributed to the development of pronunciation instruction thereafter by attracting teachers’ attention to pursuing more analytic-linguistic ways of teaching.

Through the decade of the 1970s, there appeared various methods other than CCL. Among them, in the Silent Way, accurate production was emphasized by visualizing each sound, stress and intonation, using a “sound-color chart” and “rods” (Larsen-Freeman, 2000). Also, Community Language Learning which was developed by Curran who was influenced by the Humanistic Approach, emphasizes pronunciation and set a lot of pronunciation practice in its teaching.

In the 1970s, a lot of ESL researchers suggested a change of focus and an expansion of classroom practice. They started to present pronunciation-related topics on articles. Morley (1991) states that these topics were to be issues of continuing concern into the 1980s, and categorizes them as follows:

- (a) basic philosophical considerations for teaching pronunciations;
 - (b) the importance of meanings and contextualized practice;
 - (c) learner involvement, self-monitoring, and learners’ feelings;
 - (d) learner cognitive involvement;
 - (e) intelligibility issues;
 - (f) variability issues;
 - (g) correction issues;
 - (h) increasing attention to stress, rhythm, intonation, reductions, assimilations, etc.;
 - (i) expanded perspectives on listening/pronunciation focus;
 - (j) attention to the sound-spelling link
- (p.486).

2.3.5 Communicative Language Teaching

The third wave of pronunciation instruction, or *Wave 3* referred by Murphy and

Baker (2015) occurred in late 1970s when Communicative Language Teaching was developed. Since CLT focuses on developing learners' communicative competence as a teaching goal, and its focus is communication, pronunciation instruction both on segmental and suprasegmental level became crucial (Celce-Murcia et al., 1996; Seidlhofer, 2001). By this time, intelligible pronunciation was generally accepted as one of the necessary components of communicative competence (Morley, 1991).

Hismanoglu and Hismanoglu (2010) classify the CLT approach to pronunciation instruction as an integrative approach adopting both intuitive-imitative and analytic-linguistic approaches. Pronunciation activities based on CLT principles are generally in the form of activities, such as information gap and role-play, which have learners engage in meaningful communication.

However, communicative activities based on meaningful interaction diverted learners' attention from language form, such as pronunciation, to content of language while an attempt to develop learners' communicative competence is made as a primary goal of teaching (Seidlhofer, 2001). As a result, more value is put on developing interest in communicating in a language than accuracy of form. These characteristics of CLT led to a decline in focus on pronunciation instruction in the ESL classroom (Brinton, 2017).

Celce-Murcia et al. (1996) point out that there is no definite method of pronunciation instruction in CLT as follows:

Having established that intelligible pronunciation is one of the necessary components of oral communication, the next issue is methodological: How can teachers improve the pronunciation of unintelligible speakers of English so that they become intelligible? This is a problem for Communicative Language Teaching, since proponents of this approach have not dealt adequately with the role of pronunciation in language teaching, nor have they developed and agreed-upon set of strategies for teaching pronunciation communicatively. (p.8)

In addition, there was relatively less research on foreign/second language pronunciation instruction compared to reading and writing from the 1980s to the 1990s.

That reflected the degree of maturation of pronunciation instruction. However, Murphy and Baker (2015) state that “while research base may have been thin, third wave specialists of the 1980s-1990s were successful in integrating imitative-intuitive, analytic-linguistic, and communicative means of teaching pronunciation” (p.54). Seidlhofer (2001) also affirms “the absence of one particular methodological orthodoxy” can be an opportunity for teachers to choose the most appropriate approach according to their learners. Seidlhofer also states the importance of recognizing that the role of English in the world has been reconceptualized, and it has been accompanied by a “broadening of attitudes towards different native-and non-native varieties, including accents” (p.57). These changes have made pronunciation teaching more diversified than ever.

2.3.6 Application of Empirical Research on L2 Pronunciation to Teaching

The *Wave 4* of pronunciation instruction, which saw the application of empirical research to pronunciation instruction started at the beginning of the 1990s (Murphy & Baker, 2015). There had appeared various teaching approaches and methods before 1990s, however, there was still a lack of empirical research in an attempt to improve the quality of foreign/second language pronunciation instruction. Brown (1991) lamented that pronunciation instruction had not received enough attention from researchers at that point.

However, Morley (1991) stated that interest in pronunciation instruction in the language classroom then seemed to grow again after it was reduced and sometimes almost eliminated from the curriculum. From that point, pronunciation instruction started to receive attention from teachers and researchers. As already stated, intelligible pronunciation was considered an essential factor in communicative competence.

In spite of the growing interest in pronunciation instruction, however, research in the field was still relatively little even after the year 2000. According to Brinton (2017), the number of articles on pronunciation remained less than 10 % of all articles in Applied Linguistics Journals between 2000 and 2010. Levis (2015) indicates that until the early 2000, foreign/second language pronunciation research was characterized by “scattered

nature of work, and a lack of institutional support” (p.1), and as a result, teachers reported that they could not respond to their students’ needs on pronunciation.

However, the situation surrounding pronunciation instruction started to change when TESOL Quarterly’s commissioned volume issued in 2005 was dedicated to pronunciation research. Brinton (2017) affirms that this volume “marked an important milestone” (p.258) in pronunciation instruction and research. After this, there were more articles and presentations on pronunciation at conferences. In addition, the first annual conference dedicated to foreign/second language pronunciation issues was established in 2009. The conference was Pronunciation in Second Language Learning and Teaching (PSLLT), held in Iowa State University in Ames, Iowa. Brinton (2017) recognizes its achievement in providing an important venue for teachers and researchers alike to share their work. This movement then led to publication of the “Journal of Second Language Pronunciation” by Benjamin in 2015. The journal was dedicated to the area of study and it brought “the legitimacy to pronunciation research” (Brinton, 2017, p.258).

For the first time in the history of pronunciation instruction, in the *Wave 4*, foreign/second language pronunciation became established as a firmly independent field of research, where the empirical research being conducted serves to support advances in pronunciation research, as in the same manner as foreign/second reading and writing. Brinton (2017) welcomes the new stream as follows:

This fortuitous juncture of research and practice is all too rare in Applied Linguistics in general and sets the stage for a future where researchers and practitioners can work side by side to continue building a bright future for pronunciation research and pedagogy. (p.266)

2. 4 Directions of Pronunciation Instruction in Foreign/Second Language Teaching

As seen in the preceding section, interest in foreign/second pronunciation among teachers and researchers has been increasing. This section describes the current main foci of foreign/second pronunciation and pronunciation instruction. Table 2.2 shows three macro-level focus of research topics (based on Murphy & Baker, 2015, p.57,

Table 3.1).

Table 2. 2

Empirical Research that Supports ESL Pronunciation Teaching

Macro-level Theme A: exploring what to teach in English pronunciation
Theme 1: Effects of segmentals and supra-segmentals on the intelligibility /comprehensibility of L2 speech and implications for teaching ESL
Theme 2: Effects of sociocultural factors on the intelligibility/comprehensibility of L2 speech and implications for teaching ESL
Theme 3: Contrasting analyses of L1 and L2 English speakers' production and implications for teaching ESL
Macro-level Theme B: exploring how to teach pronunciation effectively
Theme 1: Establishing priorities in pronunciation instruction
Theme 2: Impact of instruction on learner intelligibility and/or phonological improvement
Theme 3: Pronunciation strategies for successful oral communication
Macro-level Theme C: teachers' cognitions (belief and knowledge) and learners' perspectives on pronunciation instruction
Theme 1: Learners' preferences regarding pronunciation instruction, feedback and accents
Theme 2: Learners' language awareness, aural comprehension skills and improved pronunciation
Theme 3: Teachers' beliefs and knowledge about pronunciation instruction

Brinton (2017) also shows the research foci of pronunciation and pronunciation instruction as below:

1. Pronunciation as a construct: Research into the general nature of pronunciation and its subcomponents;
2. The learner: Research into issues that affect the learner's acquisition of L2 phonological features;

3. The teacher: research into issues that affect the teacher's ability to function effectively in the pronunciation classroom; and
4. The classroom: Research into issues related to classroom pedagogy (p.259).

As seen in the Murphy and Baker (2015)'s classification, "Macro-level Theme A," learners' intelligibility and comprehensibility account for a large portion of research. Brinton (2017) also states as a construct of learners' pronunciation, the relation between accent, intelligibility and comprehensibility plays a relative role. Brinton defines accent, intelligibility and comprehensibility as below:

accent is used to refer to the degree to which a speaker sound "foreign" or deviates from a given variety of English.

intelligibility refers to the extent to which that speaker's utterance are easily understood by the interlocutor

comprehensibility, which is defined as the degree of effort required on the listener's part to comprehend the speaker. (p.259)

Regarding the relation between accent, intelligibility and comprehensibility, Derwing and Munro (1997) report from their experimental research that they are related to each other, but not equivalent, and accented speech does not necessarily impede intelligibility.

As for Brinton's classification of research focus, 2 (the learner), Brinton (2017) suggests learners' variables contributing to pronunciation mastery as follows: (1) the learner's L1, (2) age of L2 acquisition, (3) gender, (4) language aptitude, (5) attitude toward the L2 and L2 speakers, (6) type and amount of motivation, (7) length of residence in an English-speaking country, (8) amount of formal L2 instruction, and (9) the relative amount of L2 and L2 use (p.261).

Regarding the classification 3 (the teacher), Brinton (2017) presents factors contributing to individual teacher's skill levels as follows: (1) quality of teacher preparation, (2) opportunities for professional development, (3) the guidelines of language policies and/ or educational standards, (4) the availability of teacher resources,

and (5) whether the teacher is a native or non-native speaker (p.262). For example, in their study examining the effects of whether the teacher was a native or nonnative speaker of English, Levis et al. (2016) report that being a native speaker English teacher or not is not a crucial factor in teachers being effective pronunciation teachers.

In their description of research focus, “Theme 2” of “Macro-level Theme B,” that is, the impact of instruction on learner intelligibility and/or phonological improvement, Baker and Murphy (2011) conclude that classroom-based research findings have shown explicit instruction improves learners’ pronunciation intelligibility and comprehensibility. Some examples of the research will be shown in Chapters 5, 7 and 8.

Regarding classroom-based research, Brinton (2017) presents research viewpoints focusing on “how effective and explicit focus on pronunciation is, which methods of pronunciation feedback lead to better results, whether teaching materials reflect research findings, how most effectively to assess learners’ pronunciation, how to integrate technological advances into the teaching of pronunciation, and which items are most crucial to include in the pronunciation syllabus for EIL” (p.263). Of all the topics, the last one shown by Brinton is a relatively new area of research and it has a “wide-reaching socio-political impact in the field” (p.264). It concerns EIL (English as an international language) or English as Lingua Franca (ELF). According to Brinton (2017), research in this area attempts to establish a minimum “common core” (Jenner, 1989) of phonological features which enables non-native speaking users (NNS) of ELF to communicate with other NNS-ELF users effectively.

As seen in the brief summary, pronunciation instruction research includes various fields and topics. It also has been affected by the changing nature of English as an international language in the increasingly globalized world today. Therefore, further research according to the current situation of English in each field will be necessary moving forward.

2.5 Summary and Direction of the Current Study

This chapter first described a brief history of language teaching. Various teaching approaches and methods developed based on their theoretical backgrounds in modern

times. The place and the degree of receiving instructional focus of pronunciation have changed according to each approach or method. However, uninterrupted interest in pronunciation has been growing since the 1990s even though the research in the field was not sufficient at the time.

After 1990, more research started to be conducted and empirical findings have been applied to classroom pronunciation instruction. In that sense, the field has great potential to grow further and it is expected that the state-of-the-art empirical findings will be applied to instruction.

Since the current research is on Japanese learners' pronunciation, it is crucial to consider the situation of a country like Japan, where English serves as a foreign language. In the ESL environment, learners might need to approximate their pronunciation to the L1 variety of English in order to adapt themselves to the L1 cultures. However, in an EFL country like Japan, learners are not necessarily required to approximate a certain L1 model, and each learner has his/her own condition, such as need and motivation. Given that intelligibility of English pronunciation is an essential component, it can be inferred that exploring the factors determining Japanese learners' intelligibility and an adequate approach to teach intelligible English pronunciation to Japanese learners is required. Also, in this period when English has become an international language, it is imperative to take intelligible pronunciation as EIL into consideration.

In an attempt to focus on Japanese learners' pronunciation intelligibility, it is essential to understand the current situation of English pronunciation instruction in Japan. The next chapter assesses the situation by analyzing the Course of Study issued by THE Ministry of Education, Culture, Sports, Science and Technology (MEXT), English textbooks used in junior high schools, pronunciation questions in examinations and current issues.

Chapter 3

Current Situation of Pronunciation Instruction in English Language Education in Japan

As seen in the previous chapter, there has been a growing interest in pronunciation instruction in ESL/EFL settings worldwide after being rather depreciated with the advent of the communicative approach. This chapter sees whether the current situation regarding pronunciation instruction is the same in Japan.

In order to understand the current situation of pronunciation instruction in Japan, this chapter first describes how pronunciation is placed in the Junior High School Course of Study issued by the MEXT (Ministry of Education, Culture, Sports, Science and Technology). Secondly, it analyzes the contents seen in junior high school English textbooks. Thirdly, it shows the treatment of pronunciation questions in the standardized entrance examination for universities. Finally, it discusses the issues regarding pronunciation instruction in English education in Japan.

3.1 Treatment of Pronunciation in the Course of Study

The Course of Study was originally created as a draft after World War II in 1947. Since then, it has been revised seven times. In 2017, the seventh revision was issued. In the ¹Course of Study of 2017, the aim of the revision of ²foreign language education was stated as follows:

In a time when globalization is rapidly increasing and communication proficiency in foreign languages is seen as a requirement not only to a limited number of people with certain types of jobs, but to the more general population. Therefore, improving

¹ Retrieved from MEXT website: https://www.mext.go.jp/content/1413522_002.pdf

² In the Course of Study, it is stipulated as “foreign language”, not “English”.

foreign language proficiency is crucial. (p5, translated by the author)

A significant change has been seen in the elementary and junior high school levels where English is now being taught as a subject with 70 classes a year from grade five. This has influenced the contents indicated in the Junior High School Course of Study. Before describing the details of the latest version, the transition of pronunciation instruction is investigated in the next section.

3.1.1 Six Revisions until 2017

This section looks at how English sound and pronunciation has been stipulated and developed in the³past six versions of the Junior High School Course of Study, starting in 1958. English was introduced as a subject, commencing in junior high school. Therefore, in this section, the Junior High School Course of Study was chosen, based on the view that the situation of pronunciation instruction and paradigm can be revealed by examining the introductory level of instruction.

The first Course of Study was issued as a draft in 1947 by the then Ministry of Education, Science and Culture. In 1958, it was issued as a Ministry notification with a legally binding agreement. Thus, this section examines the versions, starting with the one issued in 1958.

Table 3.1 shows the transition of speech sound, or pronunciation contents in the four revisions from 1958 to 1998. The 1989 and 2008 versions are not shown in the table since the contents are almost the same as 1977 and the latest respectively

According to Koreto (2017), in the 1958 version, the instruction for the learning activities were more clearly defined than the first draft, but in terms of sounds, there were just three contents and only stress and intonation were listed as specific contents to teach. In the 1969 version, pauses in sentences and sentence stresses were added. The outstanding change made in the 1977 version is seen in Content (a) “contemporary

³ Retrieved from a database of the former course of study:
<https://www.nier.go.jp/guideline/index.htm>

standard pronunciation”, instead of “contemporary British and American standard pronunciation” seen in the 1969 version. Regarding intonation, in the 1977 version, it was stipulated as “basic sentence intonation.”

Table 3.1

Transition seen in the Speech Sound Items in Junior High School Course of Study

Revised in 1958	
2 Contents	
(1) Elements	
A. Speech Sound	
(a) Contemporary British or American standard pronunciation	
(b) Speak and read with primary stress	
(c) Speak and read with rising and falling intonations	
3 Points to note in teaching	
(3) International Phonetic Alphabet can be presented in order to teach English specific sounds as a supplementary method.	
Revised in 1969 (Implemented in 1972)	
2 Contents (2)	
A. Speech Sound	
(a) Contemporary British or American standard pronunciation	
(b) Rising and falling intonations in sentences	
(c) Basic pauses in sentences	
(e) Basic stresses in sentences	
(f) Primary stress in words	
3 Treatment of the contents (The second grade)	
(1) International Phonetic Alphabet can be taught regarding (a) in the contents.	
Revised in 1977 (Implemented in 1981)	
2 Contents (2) Elements	
(a) Contemporary standard pronunciation	
(b) Basic sentence intonations	
(c) Basic pauses in sentences	
(d) Basic stresses in sentences	
(e) Word stresses	
Revised in 1998 (Implemented in 2002)	
2 Contents (3) Elements	3 Lesson Plan Design and Treatment of the Contents
A Speech Sound	
(a) Contemporary standard pronunciation	
(b) Sound changes that result from the linking of words	(1)d When teaching English sounds, continuous teaching of pronunciation contents shown in 2 A is necessary in terms of attaching importance on listening and speaking. International Phonetic Alphabet can be used as a supplement when necessary.
(c) Basic stresses in words, phrases and sentences	
(d) Basic sentence intonations	
(e) Basic pauses in sentences	

In the 1969 version, the intonation was limited to “rising and falling intonations in sentences.” Also, any reference to IPA (the International Phonetic Alphabet) was not included in the 1977 version.

In the 1989 version, communication-oriented tendency was listed in the objectives, which stated that it was desirable to “foster the attitude to communicate in English actively.” IPA is not referred to in the version. This might be a reflection of the view of Communicative Language Teaching (CLT) which pays more attention to meaning than form, such as pronunciation, with its heyday occurring during the 1980s.

In 1998s version, more specific content of “(b) Sound changes that result from the linking of words” was added. Also, in 1989 version, stresses were divided into word and sentence stress, but this was changed to “(c) Basic stresses in words, phrases and sentences.” In addition, IPA was included again.

The 2008 version covered the same contents as the 1998s. However, the English activity class was introduced at the elementary school level in 2008, thus in section (4) “treatment of contents,” a phrase that “pronunciation is to be taught in association with spelling” was added. Also, in the “Lesson Plan Design and Treatment of the Contents” section 3 (c), the phrase “Continuous instruction of Contents (A) is necessary through pronunciation practice by paying attention to the difference from Japanese” was added.

The transition of the contents from 1958 to 2008 shows that sound or pronunciation contents have become more specified in the newer version. The most noticeable change is that the model of pronunciation was changed to “contemporary standard pronunciation” in 1977 from “contemporary standard British and American pronunciation.” In addition, the pronunciation contents were three in 1969, but increased to five in 1977, and “sound changes that result from the linking of words” was added in 1998.

3.1.2 The Latest Revision of 2017

In the 2017 revision, framework of teaching was changed to four skills and five areas from the former four skills (listening, reading, writing and speaking). In the new framework, speaking was divided into two areas, that is, interaction and presentation.

This change was made based on the framework of CEFR (Common European Framework of Reference of Languages). As pointed out by Kaneko and Matsuura (2017), the area of interaction of speaking is an essential part of communication.

In order to accomplish the objectives in the five areas (listening, reading, speaking-interaction, speaking-presentation, and writing), the latest version of the Junior High School Course of Study provides the contents in speech sound, or pronunciation as seen in ⁴Table 3.2.

This section sees the detailed explanation seen in the handbook issued by MEXT along with the Course of Study. In the 2017 version, the sound, or pronunciation contents are the same as the previous (2008) one. Also, the contents of (1) A are the same in the fifth and sixth grade of elementary school Course of Study (p.158).

Table.3. 2

Sound Items Seen in the Junior High School Course of Study (2017)

2. Contents	3. Lesson Plan Design and Treatment of the Contents
(1) Elements	C
A. Speech sounds	For pronunciation instruction, continuous instruction of the language elements indicated in 2 (1) A is necessary. Pronunciation should be given through activities like pronunciation practice while taking heed of the differences between English and Japanese. Instruction using phonetic notation can also be provided as a supplement to pronunciation instruction as the need arises.
(a) Contemporary standard pronunciation	
(b) Sound changes that result from the linking of words	
(c) Basic stresses in words, phrases and sentences	
(d) Basic sentence intonations	
(e) Basic pauses in sentences	

For each content, the handbook provides an explanation and examples. Regarding (a) contemporary standard pronunciation and (b) sound changes that result from the linking of words, the followings are the explanations.

(a) Contemporary standard pronunciation

⁴ English translation is retrieved from https://www.mext.go.jp/a_menu/shotou/new-cs/youryou/eiyaku2/gai.pdf (p.5).

English is used as a communication tool on a daily basis worldwide. There is much diversity in pronunciation and usage with various ways of use. With such diversity in pronunciation of current English, a so-called standard English, which is not specific to a certain area or group of people, nor too colloquial, is to be taught to students to acquire pronunciation that enables them to communicate with a diverse range of people. In teaching pronunciation, it is crucial to pay full attention to the differences between Japanese and English sounds, such as the difference in the number and kinds of vowels and consonants, and consonant clusters of English (e.g., school, street, books) (p.30, translated by the author).

(b) Sound changes that result from the linking of words

When English is spoken, each word is usually not pronounced separately, but plural words are pronounced in succession. English is spoken smoothly and rhythmically by linking words in this manner. On the other hand, the linking of words makes it difficult to understand the spoken utterances. Therefore, it is important to be accustomed to such sound changes (p.30, translated by the author).

The following are examples.

• Linking of two words

There is an apple on the table.

Take it easy.

• When two words are linked, a sound is deleted

What time is it now?

I don't know.

• When two words are linked, two sounds are affected each other

Would you tell me the way to the library?

Why don't you join us? (p.30-31)

Regarding (c) and (d), brief explanation will be stated. As for “basic stresses in words, phrases and sentences,” it is stated that English has a weak-strong stress pattern, and

stressed syllables occur at regular intervals, which makes for the characteristics of English rhythm. It is also stated that the place of sentence stress depends on the degree of importance of the information as below:

I played soccer with Kén.

I played sóccer with Ken.

Regarding (d) basic sentence intonations, it is to be encouraged to teach students English basic intonation. Regarding (e) “basic pauses in sentences,” the important role of pauses in sentences in both of reception and production of sentences is explained.

This section has looked at the sound or pronunciation contents seen in the latest version of the Junior High School Course of Study of 2017. The contents are the same as in the previous version (2008), but in the handbook, two points are added. First, since English has started to be taught as a formal subject from the fifth grade of elementary school, the explanation includes the association with the contents of the teaching in elementary school. Secondly, regarding the content (a) “contemporary standard pronunciation,” the following phrase has been added. “It indicates that students are taught to acquire pronunciation that enables them to communicate with diverse people” (p.30, translated by the author). It implies that MEXT is more conscious of EIL (English as an international language) than the previous ministry in a time of rapid globalization.

The next section examines how English pronunciation is placed in authorized English textbooks. Since it was thought that the general framework of pronunciation instruction can be seen by analyzing the instruction of basic items, junior high school textbooks are analyzed.

3.2 Treatment of Pronunciation in English Textbooks

This section analyzes the three authorized English textbooks for junior high schools. They are New Horizon, English Course 1-3 (NH) by Tokyoshoseki, New Crown (NC) English Series 1-3 by Sanseidou, Sunshine English Course (SS) 1-3 by Kairyudou. There are six authorized textbooks and these three textbooks by the publishers account

for approximately ⁵83% of the share. Thus, these three textbooks were chosen to be analyzed.

Sections covering items of sounds or pronunciation, including practices in each chapter, independent pronunciation sections and appendixes are examined. The following are the analyzed items:

Segmentals

1. How to pronounce each phoneme: if there are explanation and practice exercises
2. How to pronounce each phoneme: if the way to pronounce is shown with a diagram of the vocal organs and articulatory regions
3. If there are explanations and practice exercises in IPA
4. If there are explanations and practice exercises associated with spelling
5. If words are shown with IPA
6. If minimal pairs are shown

Suprasegmentals

7. If there are explanations and practice exercises in word stress
8. If there are explanations and practices in phrasal stress
9. If there are explanations and practice exercises in sentence stress
10. If there are explanations and practice exercises in intonation
11. If there are explanations and practice exercises in pauses in sentences
12. If there are explanations and practice exercises in adjustments in connected speech

3.2.1 Amount of Pronunciation Sections of Each Textbook

Each textbook has sound, or pronunciation sections. They are included in one unit/chapter/lesson, and usually a brief explanation and some practices are provided in a

⁵ Retrieved from NIKKEI (2015, October 30):
https://www.nikkei.com/article/DGXLASDG30H7Z_Q5A031C1CR8000/

small portion of the page in question. Table 3.3 shows the number of pronunciation sections in each textbook. Each of the textbooks has its name for the pronunciation section, such as Sound Box in NH.

Table 3.3

Pronunciation Sections in Each Textbook

	Textbook	NH	NC	SS
	grade	Sound Box	Sounds	pronunciation clinic
number	1	4	5	11
	2	6	5	12
	3	5	5	11

In these “pronunciation sections,” each textbook shows and focuses on the pronunciation of each phoneme, stresses in words and sentences, intonation, rhythm, sound changes that result from the linking of words, and phonics. The way the items are presented varies between the different textbooks. The third-grade textbook of NH, for example, presents the stress difference of compound nouns and nouns with adjectives (e.g., White House, white house). Other than that, it contains dictation practices listening to big numbers, and how to practice reading aloud by doing shadowing. Technically, they are not about pronunciation itself, but about making students accustomed to English sounds and the way to practice producing these sounds.

Also, there are usually a line of practice of pronunciation at the bottom of each or every other page in each textbook. The pronunciation points of words or phrases seen in each unit are presented after an icon to show pronunciation (NH, NC) or with the word “pronunciation.” For example, NH shows the phoneme that should be noticed as an example as below:

ball bought [ɔ:]

NC has a brief explanation or instruction on phonemes, intonation, sentence stress, linking of words and phonics. An example is as below:

Say the sentence, paying attention to the linking of sounds.

Just a moment./ help yourself./ enough for you.

Table 3.4 indicates the use of pronunciation terms of each textbook.

Table 3.4

The Use of Pronunciation Terms

	NH	SS	NC
IPA	✓		
Vowel, consonant	✓	✓	✓
Intonation	✓		
Word stress	✓		
Sentence stress			
Rhythm	✓	✓	

As seen in the Table, NH uses most of the terms, but SS and NC do not use them. Regarding intonation, SS presents “raising and falling of voice,” and NC describes “weakness and strength of sound” as word stress. Vowel and consonants are the one term that all three textbooks use.

3.2.2 Pronunciation Features Covered in Each Textbook

3.2.2.1 Segmentals

Table 3.5 indicates treatment of segmental features covered in each textbook. As stated in the previous section, it was examined as to whether the six items are included in each textbook.

The First item to examine is if there are any explanation and practice of the way to pronounce phonemes. Each textbook offers explanations and practice of phonemes which are difficult for Japanese learners (e.g., /r/, /l/, /θ/, /ð/, /ə:/). However, only NH presents the explanation and practice in the lessons, and the other two textbooks put them in the appendix.

Secondly, it is checked if the way to pronounce is shown with a diagram of vocal

organs and articulatory regions. Only NH shows the phonemes of /θ/, /ð/, /f/, /v/, and the other two textbooks put them in the appendix.

Table.3.5

Treatment of Segmentals of Each Textbook

	NH	NC	SS
1. Each phoneme: explanation	✓	✓ (appendix)	✓ (appendix: consonants only)
Each phoneme: practice	✓	✓	✓
2. Each phoneme with diagram	✓ (θ,ð,f,v only)	✓ (appendix)	✓ (appendix: vowels only)
3. IPA: explanation	✓		
IPA: practice			
4. Phonics: explanation	✓	✓	✓
Phonics: practice	✓	✓	✓
5. Words are shown with IPA	✓	✓	✓
6. Minimal pairs	✓	✓	✓

Thirdly, regarding IPA, NH shows [ɑ], [ʌ], [æ], [r], [s], [ʃ], [θ], [f], [v] with explanations. However, the other two textbooks do not include them although all three textbooks show the IPA with new words from second grade textbooks (analyzing item 5 in the Table 3.5).

Fourthly, each textbook spends about two pages showing phonics at the beginning of the first grade. NC gives detailed explanations with the title of “spelling and pronunciation-phonics”, covering vowels and consonants, voiced and unvoiced sounds, and consonants to pay attention to (l, m, w, r, n, th). NC also has a lot of practices that make students pay attention to spelling and pronunciation as in the following example.

Divide the following words into two groups, paying attention to the sound of bold letter. Then discuss the rules of spelling and sound.

1) cut nice **cr**y dance music century

2) glad **g**ood vegetable large **g**ym big

instructions that are respectively “Say words with attention to weak-strong sound patterns in words,” and “Say words with attention to the strong part of words.”

Table.3.6

Treatment of Suprasegmentals of Each Textbook

		NH	NC	SS
7. Word stress- explanation				
Word stress-practice		✓	✓	✓
8. Phrasal stress-explanation				
Phrasal stress-practice		✓		
9. Sentence stress, rhythm-practice		✓	✓	✓
Sentence stress, rhythm-explanation		✓	✓	✓
10. Intonation-explanation		✓	✓	
Intonation-practice	Yes-No Question	✓	✓	✓
	Wh-type Question	✓	✓	✓
	Expressing feelings	✓	✓	
	Multiply instances		✓	✓
	Alternative question			✓
	Affirmative,command			✓
	Tag question		✓	
	Confirmation		✓	
11. Pauses in sentence - explanation		✓		
Pauses in sentence - practice		✓	✓	✓
12. Adjustments in connected speech - explanation		✓		✓
Adjustments in connected speech - practice	linking	✓	✓	✓
	assimilation	✓	✓	✓
	deletion	✓	✓	

Secondly, only NH presents practice of phrasal stress to show the difference between stressed words in compound nouns and nouns modified with adjectives:

The following phrases in two groups are different in terms of the stressed word.

A an art museum a soccer team B a famous museum a good team

Thirdly, regarding sentence stress and rhythm, NH explains that “In English sentences, some parts are pronounced strongly and in an extended way, while other parts are pronounced weakly and bluntly.” Only NH expresses English stresses with the word “extended.” NC has the instruction: “Say sentences, paying attention to weak-strong sounds and rhythm,” whereas SS’s instruction is “Say sentences, paying attention to the weak-strong rhythm.” Each textbook highlights sentence stress in the following way:

● ●
The trains are not running. (NH)

● ● ● ● ●
I think it’ll be interesting. (NC)

● ● ● ● ●
My sister plays it too. (SS)

Also, NH has the explanation: “pronounce the word that is an answer to a question in a strong way” and present an example with the stressed word in bold as seen in the example:

How long are you going to stay?

— For **five** days.

NC also presents explanations, such as “when you want to correct what you said, say the part strongly,” “Say the important word strongly,” along with some practice exercises. SS is unique in pointing out the height of the stressed part, as in “Read the sentence, paying attention to the words of highest (bold letter) pitch” for the following sentence:

When she was a **baby**, she became very **ill**.

Fourthly, as seen in Table 3.6, each textbook provides explanations and practice in intonation used in various function. However, the treatment depends on the textbook, except Yes-No question and Wh-type question. Fifthly, regarding pauses in sentences,

each textbook provides adequate practice.

Finally, regarding adjustments in connected speech, in the Course of Study analyzed in the previous section, it was stated that “sound changes as a result of the linking of words.” In the Course of Study, the characteristics of the sound changes are divided into three categories as follows:

1. Linking of two words
2. When two words are linked, a sound is deleted.
3. When two words are linked, two sounds are affected by each other

These can be categorized as the features of adjustments in connected speech, although the phenomena of adjustments are so complicated that it is difficult to divide into only three categories. However, the three features are analyzed in this study, based on the contents presented in the Course of Study. The three features are defined according to Celce-Murcia et al. (1996).

1. Linking of two words as “linking”: connecting of the final sound of one word or syllable to the initial sound of the next
2. When two words are linked, a sound is deleted --- “deletion”: the process whereby sounds disappear or are not clearly articulated in certain contexts
3. When two words are linked, two sounds affect each other---“assimilation”: a given sound (the assimilating sound) takes on the characteristics of a neighboring sound

Each textbook has explanations and practices in the adjustments to connected speech as in the following examples:

“English sounds can change by the linking of neighboring sounds, or affecting and affected by neighboring sounds.”

I had a lot of good food. Where did you travel this winter? (NH)

Also, NC and SS have adequate practice exercises as below:

“Be careful in linking words when you say the sentences.”

How about this one? / How much is it? / Here’s your change. (NC)

“Be careful in sound changes and linking of words when you say the sentences.”

Would you like anything else?

I’d like to take care of children. (SS)

Each textbook shows the linking visually, so it is easy to understand when practicing. However, adequate explanations are not included.

3.2.3 Summary and Issues of the Textbooks

It can be said that the English textbooks in question effectively present the five elements of pronunciation shown in the Junior High School Course of Study. As stated previously (Table 3.2), the contents are:

- (a) Contemporary standard pronunciation
- (b) Sound changes that result from the linking of words
- (c) Basic stress patterns in words, phrases and sentences
- (d) Basic sentence intonation
- (e) Basic pauses in sentences

However, the contents are presented in association with words and phrases in units/lessons/chapters, and they are not presented in a systematic order. Also, the independent pronunciation sections do not necessarily cover pronunciation itself, but sometimes they include the way to practice reading aloud or listening, such as NH, as stated in the previous section.

Regarding segmental features, each textbook raises awareness regarding the difficult pronunciation of phonemes for Japanese learners in various ways, such as

presenting minimal pairs. However, a detailed explanation of the way to pronounce these is only shown in the first-grade textbook of NH. The other two have the appendices at the end of the book. It is assumed that not many students go through textbooks to see how to pronounce a phoneme. There are inadequate explanations of the features even though there are practice exercises, such as phonics. Specific explanations are usually put in the appendix, so it is likely that students cannot access the information without the teacher's assistance.

The same thing is true for suprasegmentals. Each textbook adopts an approach to raise awareness of the features and present some practices, but there is a concern that treatment of the features depends on the individual teacher.

For example, stressed syllables are pronounced longer, louder and higher in pitch, but none of the textbooks uses the word "longer" when discussing word stress. Also, each textbook presents intonation practice, but there is inadequate explanation. The same is true for pauses in sentences and adjustments of connected speech. The features are also presented in the textbooks, but they are not presented in a way as to make students think about basic rules. For example, NC has practice exercises designed to make students divide sentences by listening to read-aloud sentences, but other textbooks have already shown the division of sentences.

In general, the textbooks cover the contents suggested by MEXT in the Course of Study, and the ways to present them are devised effectively. On the other hand, the portion of pronunciation in the textbooks is rather small. Also, as discussed previously, most of the contents do not have enough in the way of explanation. Thus, it is supposed that teaching the contents is not explicit unless a teacher focuses on them, and learning can be inductive. However, in order to learn inductively, more practice exercises are needed than are provided in the current textbooks.

3.3 Treatment of Pronunciation in Questions in Entrance Examinations

3.3.1 Common Entrance Examination for University

The standardized entrance examination for universities in Japan is a test called the "center test," and has been created by an independent administrative agency, the National

Center for University Entrance Examinations from 1990 to 2020 (1989-2019 school year). The English test has listening and writing sections. The writing test still includes questions on pronunciation even after the listening test was introduced in 2006. The listening test consists of 25 questions with four parts, and 50 points as a full score. The writing test consists of 54 questions with six parts of pronunciation, grammar, vocabulary, reading comprehension and so on. The full score is 200 points. All the questions are presented in multiple choice form.

The “center test” will be changed to a new standardized examination, with a focus on evaluating students’ thinking, judging and expressive ability, not only on knowledge and skills, from the school year 2020 (it will be commenced in January, 2021). The trial test has been revealed and the writing test does not have a pronunciation section. The “center test” started in 1990 (the school year 1989), however, in order to determine recent trends in the pronunciation segment, the next section focuses on the questions from 2001 to 2020 (the school year 2019) and how they have changed. The years when the test was conducted are usually expressed by the school year in question, however, in order to avoid confusion, the actual years are given hereafter.

3.3.2 Contents of the Test

3.3.2.1 From 2001 to 2006

When looking at the questions included in the tests of 2001 to 2020, the contents of pronunciation questions covered stress only until 2006. Table 3.7 shows the patterns of the questions from 2001 to 2006. The instructions of the test are written in Japanese. They have been translated into English by the author.

The test of 2001 has eight pronunciation questions and it accounts for 20 points out of the 200 points in the final score. The portion of the points was changed to 16 points out of 200 in 2002 and it had not changed up to the year 2007 when the points were changed to 19.

⁶ Retrieved from the website: Nihon no gattsukou [Schools of Japan] (2020).
https://school.js88.com/scl_dai/center_data

Table 3.7*Question Patterns Seen from 2001 to 2006 test*

<p>Pattern 1. Questions of word stress</p> <hr/> <p>Choose word that has a different primary stress from the other three. (Part1A Question1, 2001)</p> <p>①disgust ②drama ③problem ④southern</p>			
<p>Pattern 2. Questions of weak and strong form of function words</p> <hr/> <p>Choose the sentence whose pronunciation of the underlined word is different from the other three.(Part1B Question2, 2001)</p> <p>①Are you <u>for</u> the new proposal or against it? ②Can you ask <u>for</u> a menu, please? ③The Christmas gift is from Mary, not <u>for</u> her. ④What do you take me <u>for</u>?</p>			
<p>Pattern 3. Questions of sentence stress</p> <hr/> <p>Choose the word that is pronounced with the strongest stress in the underlined sentence.(Part1C, Question3, 2001)</p> <p>Marion: Harry, are interested in women's soccer? Harry: Not really. I'm not a big fan of soccer. Marion: Too bad. I have a spare ticket to a soccer match next week. Harry: Well, <u>I like watching soccer</u>.</p> <p>① I ② like ③ watching ④ soccer</p>			
<p>Pattern 4. Questions of word stress</p> <hr/> <p>Choose the combination of words that have correct word stress. (Part1A Question2, 2002)</p> <p>The coach <u>(a)forgot</u> to tell the swimmer that his <u>(b)record</u> had been broken by a rival.</p> <p>① (a) forgót (b) récord ② (a) forgót (b) recórd ③ (a) fórgot (b) recórd ④ (a) fórgot (b) récord</p>			

The test of 2001 has two questions of the Pattern 1 seen in Table 3.7, another two of the Pattern 2, and another four of the Pattern 3. The original questions of the Pattern 3 have a longer conversation with four underlined parts. An excerpt of the conversation is shown here. The unique point of the test of 2001 is a question regarding the weak and strong form of function words as seen in pattern 2 in Table 3.7. The pattern is eliminated the following year.

The features covered in the pronunciation questions from 2001 to 2006 are only

word and sentence stress. From 2002 to 2006, the formats of the questions are the same.

3.3.2.2 From 2007 to 2020

In 2007, questions identifying the pronunciation of phonemes of spelling appeared, as seen in Table 3.8 in the next page. In 2007, the pronunciation section covers 19 points out of 200, 16 points on the test of 2008 and 2009, and 14 points from 2010 to 2020.

In the tests of 2007, 2008, and 2009, aside from questions in phonics, some unique ways were adopted to present the questions of sentence and word stress, as seen in Table 3.8. For example, the questions on word stress are presented as seen in Pattern 6, showing syllabified words, and as in Pattern 8, presenting word stress pattern with circles. Also, the sentence stress questions from 2007's test require students to identify the speaker's intention, as seen in Pattern 7, and the last question in the 2009 test asks students to identify the proper rhythm of the sentence. However, these kinds of questions were eliminated from the 2010 test, and the format of the test is the same from 2010 to 2020. The format contains the first four questions on phonics, as seen in Pattern 5 in Table 3.8 and the second four questions on word stress, as seen in Pattern 1 in Table 3.7.

3.3.3 Summary

As seen in the previous section, questions on sentence stress in various formats were presented until 2009. However, after 2010, only phonics and word stress questions appeared on the tests. It can be inferred that the entrance examination is one of the biggest factors in motivating high school students to study English, therefore, there is a high chance that the two items, that is, phonics and word stress are more taught than other items in high school.

Although the "center test" started to include listening section from 2006, the pronunciation questions remained in place after that date. There have been opinions doubting the validity of pronunciation questions in written tests in order to evaluate

Table 3.8*Question Patterns Seen from 2007 to 2020 Test*

<p>Pattern 5. Questions of phonics- pronunciation represented by spelling</p> <p>Choose the word where the underlined letters are pronounced differently from the other three words. (Part1A, Question1, 2007)</p> <p>① <u>ass</u>ure ② <u>cl</u>assic ③ <u>effi</u>cient ④ <u>so</u>cial</p>
<p>Pattern 6. Questions of word stress - syllabified words</p> <p>Choose the number of combination of words that has different stress locations. (Part1B, Question1, 2007)</p> <p>① en-ve-lope fur-ni-ture hor-ri-ble ② ma-te-ri-al psy-chol-o-gy re-mark-a-ble ③ ef-fec-tive in-ter-view rec-og-nize ④ em-bar-rass-ment li-brar-i-an phi-los-o-phy</p>
<p>Pattern 7. Questions of sentence stress- a speaker's intention</p> <p>In the following sentence, when the speaker stresses the word in boldface, What does the speaker intend to convey? Choose the appropriate answer from 1 to 4. (Part1C, Question1, 2007)</p> <p>Can you come to dinner on Friday at eight?</p> <p>① I know your friend can't come, but can you? ② If lunch is inconvenient, what about dinner? ③ If you can't come on that day, how about Friday? ④ You work until seven? How about an hour later?</p>
<p>Pattern 8. Questions of word stress- stress pattern</p> <p>Choose the words that have the following word stress pattern ● ●● ● (weak-strong-weak) (Part1B Question2, 2008)</p> <p>① adequate ② argument ③ delicious ④ utilize</p>
<p>Pattern 9. Questions of sentence stress</p> <p>Which of the following indicates sentence stress of the underlined sentence most accurately? Stress is indicated by ● (Part1D Question7, 2009)</p> <p>While holding down button C, press both D and F for five seconds. Oh, dear, <u>it's so complicated that I feel confused just reading the manual.</u></p> <p>● ● ● ● ● ●</p> <p>① It's so complicated that I feel confused just reading the manual.</p> <p>● ● ● ● ● ●</p> <p>② It's so complicated that I feel confused just reading the manual.</p> <p>● ● ● ● ● ●</p> <p>③ It's so complicated that I feel confused just reading the manual.</p> <p>● ● ● ● ● ●</p> <p>④ It's so complicated that I feel confused just reading the manual.</p>

students' actual pronunciation skills, since the time when the former standardized test was conducted (e.g., Wakabayashi & Negishi, 1991). On the other hand, there are some researchers who support the validity of these questions. For example, Shirahata (1992) claims that word stress questions actually reflect students' skills in word stress when they speak.

There are undoubtedly positives and negatives regarding pronunciation questions in written tests, but nonetheless, the discussion around this area have been neglected in recent years, and the pronunciation questions are to disappear in the new standardized examination which will commence from the school year 2020. It can be anticipated that actual pronunciation skills, those useful for speaking and listening, will be focused on more than knowledge about pronunciation.

3.4 Problems and Issues Regarding Pronunciation Instruction in Japan

3.4.1 Goal of Pronunciation Teaching/Learning

This chapter has investigated the treatment of pronunciation in the Junior High School Course of Study, authorized English textbooks of junior high school and pronunciation questions in the standardized entrance examination.

As stated in the English Course of Study issued in 2017, in this rapidly globalized era, communication proficiency in English has never been needed more than now, and improving Japanese learners' communication proficiency is an urgent task. In other words, growing not only active attitudes to communicate in English but also true communication proficiency is required. When thinking of oral communication, pronunciation is a crucial factor for successful communication. In teaching pronunciation to Japanese learners, then, what is the goal of pronunciation?

In the above stated Course of Study, the 1958 and 1969 versions stipulated "contemporary standard British or American English pronunciation" were to be taught to students. Then, from the 1977-year version, the phrase "British or American" was deleted. Instead, the pronunciation to be taught was stipulated as "contemporary standard English pronunciation." This reflected the change of general belief that British and American English pronunciations were standard. British or American pronunciation was

no longer regarded as a single standard model because varieties of English began to be recognized. As a result, English came to be regarded as a global language.

When looking at the phrase “contemporary standard English pronunciation”, a question arises, that is, what is meant by the term “contemporary standard English pronunciation”? Even though it has not been clarified by MEXT yet, the consensus of researchers now is that the ESL/EFL teaching and learning goal of pronunciation is not native-like pronunciation with a single L1 model as a standard, but intelligible pronunciation. As Derwing and Munro (2005) state; “In communicatively oriented ESL settings, improved intelligibility is generally identified by pedagogical specialists as the most important outcome of pronunciation instruction” (p.384).

Levis (2005) describes the goal of pronunciation teaching and learning as having been affected by two contradictory principles, that is, the “nativeness principle” and the “intelligibility principle.” Until the 1960s, the nativeness principle was pervasive, however, some research showed that it is almost impossible for learners after the age of adolescence to acquire native-like pronunciation (e.g., Scovel, 1969). As a result, the intelligibility principle has become the new norm for pronunciation instruction. However, there are still many ESL/EFL teachers and learners who regard native-like pronunciation as a goal of teaching/learning (e.g., Timmis, 2002).

Levis (2005) discusses the idea that both principles will continue to influence pronunciation instruction in the language curriculum. The situation of the nativeness principle can still be seen in Japan as well as other countries. Almost all models of pronunciation in textbooks which are presented to students are American or British at junior and senior high school levels in Japan. And a lot of teachers and learners still aim for native-like pronunciation. On the other hand, MEXT has already suggested the extrication from the nativeness principle in the version of the 1977 Course of Study. Some Japanese researchers, at the same time, contend the necessity to promote intelligible English and pronunciation as EIL (English as an international language) (e.g., Torikai, 2016b).

In this increasing globalized world, English has already become a common language for a much larger number of NNSs (non-native speakers) than NSs (native

speakers), as stated in the next chapter. Accordingly, it is possible that a lot of Japanese learners will need to communicate with people from various backgrounds in English.

When engaging in oral communication in an international setting, intelligible pronunciation to as many interlocutors as possible is crucial. However, MEXT has not referred to the intelligibility principle even though it has already been suggested that there should be distance taken from the nativeness principle. It also seems that the intelligibility principle has not spread adequately in Japanese English education. In other words, the goal of pronunciation teaching and learning has not been clarified, thus, it is difficult for both teachers and learners to have an outlook of teaching/ learning, which is a serious issue seen in pronunciation instruction in English education in Japan.

Another issue is that in the Course of Study, the pronunciation goal is not divided into a goal for listening and one for speaking. For example, adjustments of connected speech are necessary skills in order to listen to NS's utterances, however, it is questionable as to whether they are necessary for intelligible pronunciation when speaking.

Considering the issues above, it can be said that identifying intelligible pronunciation as EIL is essential in the first place. Although the detailed features are stated in Chapter 5, Jenkins (2000), for instance, suggests a *lingua franca core* (LFC) for maintaining international intelligibility among NNSs.

As stated, it is essential to identify some core, such as LFC proposed by Jenkins (2000), for Japanese learners to maintain intelligibility of pronunciation as EIL. However, an initial shared awareness of the pronunciation goals, such as intelligibility, is required for those involved in English education in Japan.

3.4.2 The Need for More Emphasis on Pronunciation in English Classroom

The analysis of the Course of Study, English textbooks, and the standardized entrance examination imply that pronunciation instruction is not emphasized as much as other items, such as grammar in English education in Japan. Firstly, the analysis of the Course of Study in section 3.1 has revealed that the contents of pronunciation are relatively little compared to other items. Also, it does not specify the model, or goal of

pronunciation instruction. Secondly, it has been stated that the English textbooks do not provide explicit explanation nor adequate practices as seen in section 3.2. Thirdly, as seen in section 3.3, the portion of pronunciation questions in the written standardized test is 14 points out of 200, which is relatively small. Also, the new standardized written test starting in 2021 does not have pronunciation questions at all. These might lead to the relative de-emphasis of pronunciation.

On the other hand, as stated in section 3.1, instruction contents are divided into four skills and five areas (listening, reading, writing, speaking-interaction, speaking-presentation) from the former four skills (listening, reading, writing and speaking). This shows more emphasis is being put on communication than before. Also, the elimination of pronunciation questions from the standardized test may lead to more focus on the instruction of pronunciation as skills (listening and speaking), not as knowledge. In other words, in order to adjust to the changes, pronunciation instruction is probably expected to change to be useful for communication. A question arises here, that is, what features does useful pronunciation instruction have?

In CLT that emphasizes communication, pronunciation should be taught through meaningful interaction (e.g., Brinton, 2017), which encourages teachers to teach implicitly through a lot of communicative activities, rather than drills and explicit explanation separated from other contents. Whereas, research has proved the effectiveness of explicit pronunciation instruction (e.g., Saito & Lyster, 2012; Gordon et al., 2012). Also, as Jones (1997) points out, automatic drills and imitation used in the Audio-Lingual Method are valid in the first stage before moving to communicative and meaningful practices.

It appears that while both imitation and discrimination drills have an important place in the teaching of pronunciation as a means to help articulation become more automatic and routinized, they are best seen as a step towards more meaningful, communicative practice. (p.106)

Consequently, explicit instruction and adequate practice is necessary when it comes to

pronunciation. However, the analysis of the textbooks reveals that neither explicit explanation nor adequate practices based on meaningful and communicative interaction are adequate.

On the other hand, English began to be taught as a formal subject from the fifth grade of elementary school starting in 2020. At the elementary school level, implicit teaching with a lot of input is effective, but it is uncertain if there is enough time and resources to teach pronunciation in that way at the elementary school level.

With Teaching English at the elementary school level in mind, first of all, more focus on pronunciation instruction is imperative. Following this, it is important to find out an approach with a balance of growing communication proficiency and, explicit and implicit teaching of pronunciation with sufficient input.

3.4.3 Teachers' Attitude toward Pronunciation Instruction

Analysis on the Course of Study, textbooks and the standardized tests revealed that more emphasis could be put on pronunciation instruction in Japan. With emphasis on proficiency in communication, which is a crucial factor for oral communication, searching for a direction toward effective pronunciation instruction for communication is essential hereafter. Research has indicated that explicit instruction for pronunciation is effective. However, analysis of junior high school English textbooks indicates that it depends on the approach by the teacher as to whether various pronunciation features are taught explicitly. In order to know the situation at the junior and senior high school, this section analyzes the existing research focused on teachers.

Shibata et al. (2006) investigated the actual condition of pronunciation instruction by distributing a questionnaire to 224 teachers of junior and senior high schools. The survey showed that IPA, phonics, segmentals and ⁷ features of connected speech, suprasegmentals were not taught adequately. However, the degree of importance the teachers placed on pronunciation was reported as high except IPA. They also reported that teachers' confidence in teaching pronunciation was generally low, particularly in

⁷ Shibata et al. call the features as "*renon*" in Japanese, which means "linked sounds."

phonics and IPA.

Similarly, Orii (2015) reported that there was a correlation between the teaching frequency and teachers' knowledge in IPA, individual phonemes, phonics and pauses in sentences. Another piece of research targeting junior and high school teachers by Otsuka and Ueda (2011), reported that a lot of teachers agreed that they taught word stress, intonation and pauses in sentences. On the other hand, half of the teachers did not teach IPA.

Shibata et al. (2008) point out that teachers' confidence in teaching pronunciation influenced actual pronunciation instruction. The teachers' confidence related to their experience of learning pronunciation themselves. According to Shibata et al. (2008), only 69.8 % of the teachers had learned phonology and 47.9% of them had actually learned how to pronounce before. Torikai (2016a) points out the issue that English phonology is not a compulsory subject in current teachers' training curriculum.

These are the issues regarding teachers. First, frequency of pronunciation instruction is not adequate at junior and senior high school in general. Second, the frequency and focus on pronunciation features taught at classroom depends on the teacher. Thirdly, the dispersion of pronunciation instruction is related to teachers' knowledge, learning experience and attitude toward pronunciation.

Teachers' awareness of the importance of intelligible pronunciation, and developing teachers' training to make teachers able to teach intelligible pronunciation and curriculum to teach them are crucial hereafter.

3.5 Summary

In order to understand the current situation of pronunciation instruction in Japan, this chapter first looked at how the Junior High School Course of Study stipulates the pronunciation contents by comparing the former versions to the latest version of 2017. The contents of pronunciation have changed to be more specific as the revisions were issued. For example, "sound changes that result from linking of words" was added from the 1998-version. Also, as stated previously, pronunciation to be taught was "contemporary standard British or American pronunciation" until the 1969 version, but

in the 1970s, “British or American” was deleted, and was changed to just “contemporary standard pronunciation” However, it needs to be clarified and presented clearly to educators.

Secondly, an analysis of authorized English textbooks of junior high school reveals that each textbook covers the pronunciation contents in the Course of Study. They are presented in a way as to raise students’ awareness. Nevertheless, the amount of practice is not sufficient, given that adequate input is necessary for students to internalize them. Also, the explicit explanation on pronunciation is inadequate, so it seems to depend on the teacher as to whether they teach the content in class.

Thirdly, pronunciation questions from 2000 to 2020 in the standardized entrance examination for university were examined. Until 2009, there were questions on sentence stress in various formats, but from 2010, there are only two types of questions—that is, spelling and pronunciation, and word stress. In addition, there is no pronunciation questions in the new standardized written test from 2021, and pronunciation instruction at high school is expected to change accordingly.

In this globalized world with English as an international language, acquiring intelligible pronunciation in international settings is imperative for Japanese learners. However, pronunciation instruction is not emphasized as much as other skills, such as grammar in English education in Japan. Consequently, more emphasis on pronunciation is a basic requirement. Then starting from the point with more emphasis, there are three issues regarding pronunciation instruction in Japan. First is where to put the goal of pronunciation teaching/learning and how to describe the goal of intelligible pronunciation. In other words, what constitutes intelligibility needs to be clear. Second, should intelligibility of pronunciation be set as a goal, it should be considered how the goal can be achieved in the current situation where communication is prioritized. At the same time, it is also necessary to consider how to distinguish intelligibility of listening and speaking. Third is that to raise teachers’ awareness of the importance of intelligible pronunciation and foster their skills to teach pronunciation.

This study particularly examines the first and second issues, that is, what constitutes intelligibility of pronunciation, and how to achieve the goal of intelligible

pronunciation. In order to understand the intelligibility of EIL (English as an international language), the next chapter examines the current situation of the development of EIL.

English textbooks consulted:

New Crown English series 1-3. Sanseido.

New Horizon English course 1-3. Tokyoshoseki.

Sunshine English course 1-3. Kairyudou.

Part 2

Theory

Chapter 4

English as an International Language

4.1 Globalization and English

English is by far the most international language. When defining an international language, a large number of native speakers of a language does not necessarily make it an international language. Mandarin, English, Spanish, Hindi and Arabic are the five languages spoken the most as native languages. However, an international language needs to be spoken by a large number of speakers whose mother tongues are different. In that sense, English can be called an international language. Crystal (2003) estimated that one fourth of the world population is capable of communicating in English, and at the time the number was one and a half billion, and the number has been growing. Also, the number of non-native speakers of English exceeded the number of native speakers, and it has been increasing.

Crystal (2003) contends that the predominance of a language over other languages is closely related to its economical, technological and cultural power. McKay (2017) also claims that some languages have more linguistic power over other languages at present, and possessing English ability presents a sign of education, affluence, cosmopolitanism and power. The following section examines how English has obtained such status.

4.1.1 Brief History of Spread of English

Some geographical, historical and sociocultural factors led to the first spread of English as described by Crystal (2003). At the end of 16th century, most people who spoke English as their mother tongue lived in the British Isles, whose population was thought to be between five and seven million (Crystal, 2003). The 16th century in Europe is referred to as the Age of Exploration, when European countries competed in obtaining colonies in Asia, Africa and America. Although Spain and Portugal preceded the competition, Britain ultimately won out, and its language and culture expanded overseas.

This was the period when the foundation of the subsequent spread of English was laid.

After that, colonization and immigration from Britain to America and other colonies happened. As a result, education in English was introduced in many places in the world. By the beginning of the 19th century, Britain had become the leading country in commerce and industry in the world. The Industrial Revolution which began in Britain increasingly spread English.

By the end of the 19th century, America has become the most rapidly growing economic country and took the place of Britain which started to withdraw from its empire. Crystal (2003) summarizes the history of the first spread of English in this way:

In the seventeenth and eighteenth centuries English was the language of the leading colonial nation-Britain. In the eighteenth and nineteenth centuries it was the language of the leader of the industrial revolution-also Britain. In the late nineteenth century and the early twentieth it was the language of the leading economic power- the USA. As a result, when new technologies brought new linguistic opportunities, English emerged as a first-rank language in industries which affected all aspects of society- the press, advertising, broadcasting, motion pictures, sound recording, transport and communications. (Crystal, 2003, p.120)

Furthermore, the Internet started in USA in the 1960s and the subsequent spread of the private use of the Internet contributed to the spread of English.

English spread in the manner described above. According to Crystal (2003), the number of speakers of English who lived only in the British Isles was approximately five million at the end of Elizabeth I (1603)'s reign. This number had increased to 250 million, approximately by 50 times, by the beginning of Elizabeth II (1952)'s reign.

4.1.2 Factors Making English an International Language

This section describes the reasons English is regarded as essentially an international language. The sub-sections look at each reason.

4.1.2.1 Number of Speakers

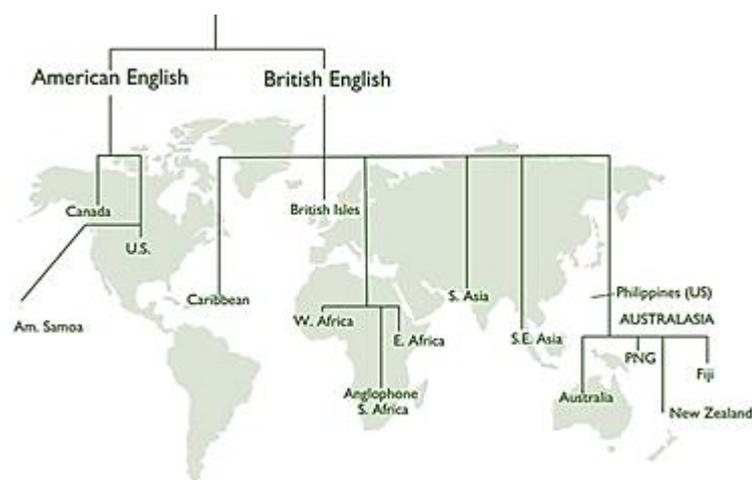
Graddol (1998) showed the top five languages of a large number of L1 speakers at the time. They were Mandarin Chinese (1,113 million), English (372 million), Hindi/Urdu, (316 million), Spanish,(304million), and Arabic (201million) (p.8). However, as stated above, unless such languages are spoken by a large number of non-native speakers, they cannot be referred to as an international language which serves as a language of wider communication. The most spoken language including the speakers of ⁸L2 are English (1268m), Mandarin Chinese (1120m), Hindi (637m), Spanish (538m), and French (277m). In this sense, English exceeds Mandarin Chinese.

4.1.2.2 Geographical Distribution

Not only does it possess a large number of speakers, English is used in many parts of the world. English is used as L1 in over 30 territories, and as L2 in approximately 75 countries (Graddol, 1998).

Figure 4.1

The Branch of World English (Graddol, 1998, Figure 5)



The countries where English is spoken as L2 are spread widely across South Asia, South-

⁸ Retrieved from <https://www.ethnologue.com/guides/ethnologue200>

east Asia, Africa, and the Caribbean, many of which are the former colonies of Britain. Figure 4.1 shows the geographical spread of English worldwide.

4.1.2.3 Uses of English in Various Fields

English is used in various fields. First of all, the use of English in international organizations is described. For instance, English has a role as an official and working language in international organizations, such as the United Nations, European Union, ASEAN and APEC. According to Crystal (2003), of the 12,500 international organizations listed in the 1995-1996 Union of International Associations' Yearbook, approximately 85 per cent make official use of English.

Secondly, the position of English in the economy is identified. Economic power and a language predominance are closely related to each other. Graddol (1998) presents an example of the phenomenon of the increasing number of learners of Japanese worldwide between 1982 and 1989 when there was a rise in the value of the Japanese yen against the US dollar. He states that "It is clear that a language which is spoken by rich countries is more attractive to learners than one which provides no access to personal betterment or lucrative markets" (p.28).

The recent spread and popularity of English are attributed to US economic development with overwhelming economic power. Also, economic globalization has contributed to the more recent expansion of English. Nowadays, the world's largest corporations are no more nation states, but rather the transnational state. Graddol (1998) reports two thirds of international trade in goods is conducted by TNCs (Transnational corporations). These TNCs' global activities are promoting English.

Thirdly, the status in the field of academia, education and publishing will be investigated. According to Lobachev (2008), scholarly journals written in English accounted for approximately 45% of all the journals in 2007. The proportion was far higher than that of German (11%) as the second most used language for journals (see Table 4.1).

Table 4.1

Scholarly Journal Production by Language (Lobachev, 2008, p.4)

Language	Number of titles	Percentage of total
English	28,131	45,24%
German	6,848	11,01%
Chinese (Mandarin)	4,047	6,51%
Spanish	3,522	5,66%
French	3,074	4,94%
Japanese	2,149	3,46%
Italian	1,860	2,99%
Polish	1,060	1,70%
Portuguese	1,055	1,70%
Dutch	922	1,48%
Russian	808	1,30%

Regarding education, Graddol (2006) reports that between two and three million students go overseas to study every year, and one third of the students go to either the USA or the UK. Also, 46 % of the students choose English speaking countries for their studies. In addition, more than half of the students studying abroad are taught in English.

When looking at publishing, books written in English accounted for 21 % of all published in 2007, according to Lovachev (2008) as seen in Table 4.2.

Table 4.2

Book Publishing by Language (Lobachev, 2008, p.2)

Language	Number of titles	Percentage of total
English	200,698	21,84 %
Chinese (Mandarin)	100,951	10,99 %
German	89,986	9,78 %
Spanish	81,649	8,88 %
Japanese	56,221	6,12 %
Russian	48,619	5,29 %
French	44,224	4,81 %

Finally, the status of English in media, the Internet and entertainment are described. Table 4.3 was compiled by Lobachev (2008), who examined the world's largest database of bibliographic and publisher information, Ulrich's Periodicals Directory in 2007.

English accounts for the overwhelmingly large portion in newspaper and magazine production.

Table 4.3

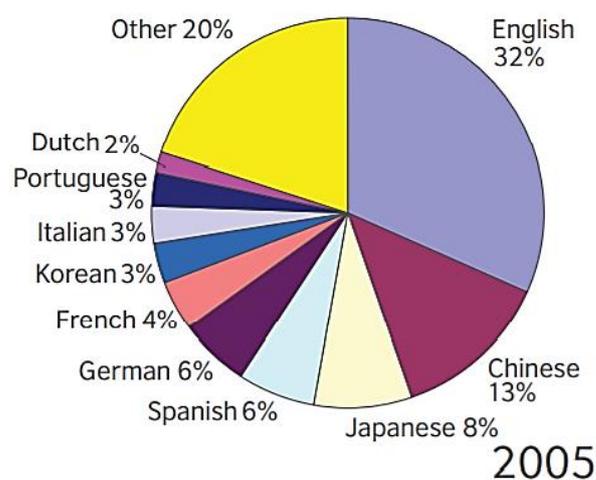
Newspaper and Magazine Production by Language (Lobachev, 2008, p.3)

Language	Number of titles	Percentage of total
English	2499	62.55 %
Spanish	277	6.93 %
German	235	5.88 %
Chinese (Mandarin)	156	3.90 %
Hindi	117	2.93 %
French	95	2.38 %
Polish	44	1.10 %
Russian	38	0.95 %
Italian	36	0.90 %
Portuguese	35	0.88 %

Regarding the Internet, Graddol (2006) shows the portion of Internet users whose English is their L1 (Figure 4.2).

Figure 4.2

Proportion of Internet Users by First Language (Graddol, 2006, p.44)



According to Graddol (2006), English users accounted for 32% of all users in 2005.

However, this portion has been rapidly declining. That was because there appeared alternatives published in their L1 for bilingual users. Also, Lobachev (2006) reports 82 % of web pages were written in English on the World Wide Web, in 1997, but that number had dropped to 56% in 2002.

Regarding entertainment, McKay (2002) summarizes Crystal (1998)'s investigation into entertainment as below:

- Motion pictures: in the mid-1990s, the United States controlled about 85 per cent of the world film market.
 - Popular music: of the pop groups listed in *The Penguin Encyclopedia of Popular Music*, 99 per cent of the groups work entirely or predominantly in English.
- (p.17)

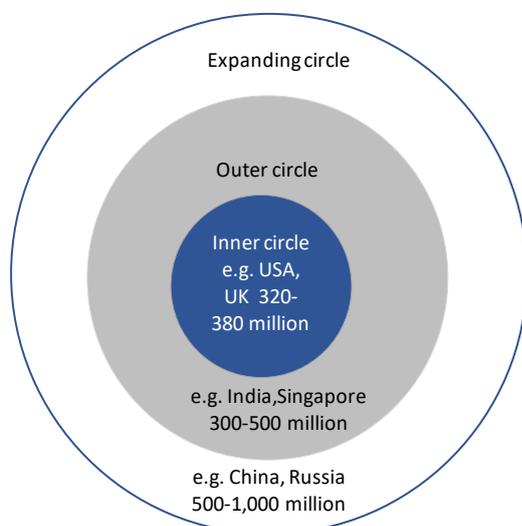
4.2 Diversity of Users of English

4.2.1 Three Circles

The history of the spread of English and the current situation of English in the world have been discussed in the previous section. This section examines how English is used in the world. As already stated, the number of non-native speakers (NNSs) of English is larger than native-speakers (NSs) and English has various functions and roles around the world.

Kachru (1988), one of the pioneers in world English research, categorizes the world into three groups based on its first language and institutional penetration as seen in Figure 4.3. Kachru documented varieties of English based on their geographical context and established theoretical framework for World English(es) theory. He contended that World Englishes had developed in the Outer Circle which has more than two languages used on a daily basis, where linguistic borrowing takes place.

Figure 4.3
Kachru's Three Circles Model of English Used Worldwide
 (Crystal 2003, p.61)



McKay (2017) applauds Kachru's achievement in recognizing the varieties of English and their validity other than Inner Circle English. However, McKay points out the limitation of the approach, that is, it recognizes language use in terms of nation-state, but nowadays, borders between nations have become more porous. In other words, the differences between the circles are seen fixed in Kachru's approach, but in reality, they are not. However, a lot of researchers recognize the value of Kachru's approach in terms of its usefulness in capturing the whole image of English today.

4.2.2 Specification of Each Circle

This section examines the details of each circle suggested by Kachru (1988). The Inner Circle represents countries and territories where the primary language is English, and where the majority of the population speak English. It includes countries, such as UK, US, Ireland, Canada, Australia, and New Zealand. Crystal (2003) estimates the number of L1 speakers of English, including pidgin and creole versions, was about 400 million in the year of 2000. Sato (1989) defines pidgin and creole as follows:

the term creole is "reserved for a variety of language newly created by children in a

multilingual context, typically where a pidginized variety already exists for purposes of rudimentary intergroup communication among adults who have different native languages (e.g. on sugar plantations in the early 1900's in Hawaii) . A pidgin is usually said to differ from a creole in that the former is a second language while the latter is the native language of its speakers, typically the children of the pidgin speakers” (pp.143-144).

The Outer Circle includes countries which were former colonies of Britain. English is not usually their L1, but it has the status of the official language, or is used as a second language on a daily basis. More than 50 countries, such as Singapore, India, and Malawi, are included. Walker (2010) explains that in many Outer Circle countries, English was imposed through colonization, however, after becoming independent, many countries chose English as an official language. That was because in multi-lingual countries, such as India and Malaysia, English had become a useful tool in intra-country communication. Another reason indicated by Walker was that English had developed into a local variety, influenced by the country's or region's language grammar, lexis and pronunciation. As a result, English was not seen as a foreign language anymore.

As a result of this process, there are varieties such as Indian English, Nigerian English, and Singapore English. These versions of English are called World Englishes (Kachru), and New Englishes (Walker, 2010; Crystal, 2003). Crystal (2003) states that South Asian Englishes, such as Indian English, are still young languages aged about 200 years. However, they have become one of the most distinctive varieties in the English speaking world.

Crystal (2003) claims that calculating the number of English speakers of the Outer Circle is extremely difficult not only because of the difficulty in obtaining appropriate data, but also the difficulty in setting a level for distinguishing “competent users” from L2 learners.

While taking the difficulties into consideration, Crystal (2003) estimated there were 430 million ESL users at the time. The number was higher than that of those who had English as a first language. According to Walker (2010), the population of L1

speakers has been stable, whereas, the population of ESL speakers is growing in accordance with the growing population in the countries of the Outer Circle.

The countries in the Expanding Circle have never undergone colonization by an Inner Circle country nor given English a special administrative status. However, these countries recognize the importance of English as an international language, and English is taught as a foreign language there. Countries, such as China, Japan, Greece, Poland and a lot of other countries are included. The number of EFL speakers in the Expanding Circle has been growing as much as that of ESL speakers. Therefore, it is also difficult to calculate the exact number of speakers because of the difficulty in setting the line between competent speakers and those who are not. Crystal (2003) set a criterion for the competent speaker of the Expanding Circle as “a medium level of conversational competence in handling domestic subject-matter” (p.68). Based on this criterion, he calculated the number of EFL speakers in the Expanding Circle to be about 750 million at the time.

Consequently, the number of NNSs far surpasses that of NSs. Crystal (2003) calculated the ratio was 1:3. As stated above, the situation regarding the three circles, and its classification suggested by Kachru in 1988, is now changing. However, the three circle- classification and Crystal’s calculation of the number of speakers are helpful in understanding the wide spread of English and its diversity.

4.2.3 Characteristic Pattern in Use of English in Each Circle

It has been stated that there are more NNSs than NSs of English currently, and English is used in geographically, linguistically and culturally diverse regions. English is used in various international contexts as an international language. This section describes the actual conditions of the usage of English in each circle.

First, in English speaking countries of the Inner Circle, as a matter of course, English is the primary language. However, according to Crystal (2003), the US census of 2000 reported 82 % of its citizens over five years old, 215 million, used only English at home. In other words, the remaining 18 % used other languages at home. In addition,

the ⁹census conducted in 2011 in Canada, where there are two official languages- English and French revealed that 17.5% of its population is bilingual in English and French. It was also reported that 11.5% of citizens speak a language other than English and French at home.

McKay (2002) states that “English in Inner Circle contexts is used for all public domains within the country, giving bilingual users considerable exposure to the various registers of the language” and as a result, many bilingual users “come to identify with the culture of the Inner Circle country and become members of English-only speech communities” (p.35). In other words, in the Inner Circle, English is used and functions on an intra-country-basis and bilingual users of English there are expected to accommodate themselves to the L1 norm of the country they live.

Secondly, the situation in the Outer Circle will be clarified. As stated in the previous section, many Outer Circle countries are former colonies of Britain. After becoming independent, English has continued to be used as an official or second language in the multilingual settings.

For example, in India, English and Hindi are official languages of central government. There are also 22 scheduled languages, which include Hindi, but do not include English. In contrast to 43.63 % of L1 speakers of ¹⁰Hindi of all the population, the percentage of L1 speaker of English is 0.02%, according to the results of the 2011 census of India. Many Indians are bilingual or trilingual speakers who use English with other languages. Crystal (2003) estimates that one third of the Indian population is “capable of holding a conversation in English” (p.46-47) at the time of writing.

In multilingual societies, such as India, English functions in communication between people with different mother tongues. The use of English in the Outer Circle has distinctive characteristics, such as “code-switching.” Graddol (1998), describing the bilingual situation in Outer Circle countries, states that English implies social distance, formality, and officialdom. When two bilingual speakers of English communicate, they

⁹ Retrieved from Statistic Canada: <https://www12.statcan.gc.ca/census-recensement/2011/as-sa/98-314-x/98-314-x2011001-eng.cfm>

¹⁰ Retrieved from https://en.wikipedia.org/wiki/List_of_languages_by_number_of_native_speakers_in_India

tend to switch between two languages as part of negotiations. Bilingual speakers in the Outer Circle use code-switching as a communicative resource.

McKay (2002) indicates that English has started to be used in more contexts including informal contexts in “multilingual English-using Outer Circle countries” (p.36) and its usage pattern is becoming similar to that of bilingual immigrants of the Inner Circle. However, McKay describes the difference:

A major difference, however, is that whereas bilingual users in the Inner Circle countries may want to link their English learning and use with the culture of the country in which they live, bilingual users in other countries do not have this in goal. (p.37)

Kachru (1982) lists the characteristics of English in the Outer Circle, which he called “institutionalized varieties” (p.38):

- (a) they have an extended range of uses in the sociolinguistic context of a nation;
 - (b) they have an extended registers and style range;
 - (c) a process of *nativization* of the registers and styles has taken place, both in formal and in contextual terms;
 - (d) a body of nativized English literature has developed which has formal and writing is considered a part of the larger body of writing labeled English literature.
- (pp.38-39)

English in the Outer Circle has developed and established as a variety, such as Indian English. Bilingual users of English in the Outer Circle “use English as a language of wider communication both within their own country and with countries of the Inner and Expanding Circle” as described by McKay (2002, p.37).

Finally, the pattern in use of English in the Expanding Circle will be explained. English is primarily used with the purpose of wider communication beyond national and linguistic boundaries. Some countries in the Expanding Circle, such as Japan, are purely

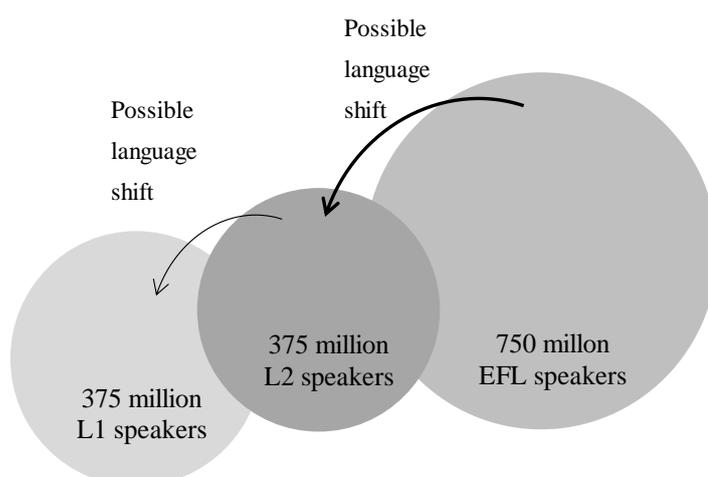
monolingual countries. Many Japanese do not need to use English in their daily lives. According to the Statistics Bureau of Japan, the population of Japan is approximately¹¹ 125.93 million as of 2020. Of the population, the number of foreigners living in Japan is only ¹² 2.93 million (data of 2019), that is, the percentage is only 0.02%. The number includes people other than English speakers. The low contact ratio rate between Japanese and English speakers obstructs the spread of English, as suggested by McKay (2002).

The aforementioned Kachru (1982) described the English used in the Expanding Circle, as “performance varieties”. According to Kachru, the performance varieties are restricted to a functional range in certain contexts, such as tourism, commerce and other international transactions.

However, the situation of English in the Expanding Circle is changing. In contrast to countries like Japan, where English spread is not taking place, Graddol (1998) asserts some countries which were categorized as in the Expanding Circle have changed from EFL to the ESL context.

Figure 4.4

Graddol's Three Circles of English of the 21st Century
(Graddol, 1998, p.10)



¹¹ Retrieved from <http://www.stat.go.jp/data/jinsui/new.html>

¹² Retrieved from http://www.moj.go.jp/housei/toukei/toukei_ichiran_touroku.html

The countries are as follows: Argentina, Belgium, Costa Rica, Denmark, Ethiopia, Honduras, Lebanon, Myanmar, Nepal, the Netherlands, Nicaragua, Norway, Panama, Somalia, Sudan, Surinam, Sweden, Switzerland, and the United Arab Emirates. The changing pattern is shown in Figure 4.4. The pattern in use, function and role of English is different in each of the three circles, as seen above. However, the boundaries of the circle are becoming vague and the pattern of English use in each circle is changing.

4.2.4 English for Wider Communication- Language Hierarchy

When considering English as an international language, it is crucial to understand the place of English alongside other languages. Graddol (1998) maintains that languages are in hierarchically ordered positions as seen as Figure 4.5.

Looking at Figure 4.5, at the bottom of the pyramid are languages used for informal purposes with one's family and friends. They are geographically based, and languages that children learn first as a mother tongue. The higher up the pyramid are the languages used for more formal and public domains with "greater territorial reach" after the expression of Graddol (1998).

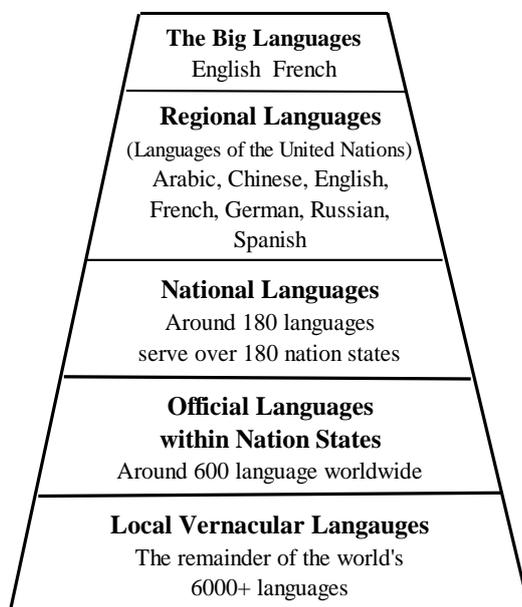
At the top of the pyramid are international languages used for public administration and higher education. Since the status of French is declining, English is now becoming "more clearly the global lingua franca" (p.13) according to Graddol (1998).

With wide communication beyond national borders in mind, being capable of the top of the pyramid is necessary. It goes without saying that not everyone has the capability to access the highest level. However, Graddol (1998) contends that, as a result of the changing pattern of international communication, more and more people are learning the languages at the top for wider communication. In order to understand the particular position of English which can serve as a common language with greater territorial reach, this section describes the sub-varieties of English within a certain broader variety. In this section, varieties of English in Singapore are taken as an example.

Lick and Alsagoff (1988) assert that all the varieties of English are systematic with their own rules.

Figure 4.5

Proportion of Internet Users by First Language (Graddol, 2006, p.44)



Therefore, they are linguistically equal. They showed some examples of ‘Singlish’ which is used in an informal context such as in the example below:

‘She kena sabo by them’

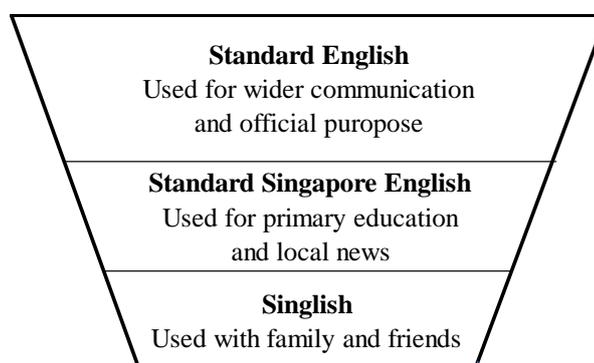
(‘She was sabotaged by them’)

According to them, the sentence is based on a grammatical rule of Singlish. In that sense, Singlish is a valid language and linguistically equal to other varieties. However, there are people in Singapore who accuse Singlish of being “bad English.” On the other hand, some people advocate Singlish because it represents the Singaporean identity.

McKay (2002) states that the situation of English in Singapore reflects the fact that all the language varieties are linguistically equal, but that they are not socially equal. She presents the hierarchy of English in Singapore, following the concept of Kachru (1986)’s “cline of bilingualism” as seen in Figure 4.6.

Figure 4.6

English Language Hierarchy for Singapore (McKay, 2002, p.56)



According to McKay (2002), “The inverted pyramid illustrates that Standard English has a greater territorial reach” (p.56). Other elements are also important for an individual’s repertoire to show the degree of formality and relation to the role of the speaker as pointed out by McKay. However, not everyone is able to access all the varieties, that is, elements of cline of bilingualism in the same way as the world language hierarchy.

Tay (1982) explains that the cline of bilingualism contains basilect, mesolect and acrolect. Acrolect is a variety spoken by educated people, and not very different from standard English of the Inner Circle. Mesolect has its unique grammatical characteristics, and basilect diverges greatly from the standard form, and is used in very informal contexts. The three types correspond to the English language hierarchy for Singapore shown in Figure 4.6.

In this way, there are varieties within a variety. Each variety has a different function. For example, mesolect and basilect express the identity of the people in a country, or region. People are able to share the sense of belongings to the local society by using basilect and mesolect. On the other hand, acrolect has a wider geographical reach, thus it is a necessary variety for individuals who engage in international communication.

Although varieties of English have been expanding and developing, the top of the variety within a variety is close to the L1 standard and it can be used for wider communication. The varieties at the lower layer of the hierarchy should be as valued as the top since they have their own roles and functions as stated above. However, there is

no denying that the top of the hierarchy is to be promoted as a norm for foreign/second language learners/speakers to access, given that the majority of bilingual users of English learn English in educational settings. When English serves as an international language, it needs to be intelligible among people from various backgrounds, beyond national and cultural boundaries. Considering setting a norm for learners of English, it probably benefits them to be taught English for wider communication, which might be called English as an international language (EIL). The question which arises here, is ‘what is English as an international language like and is there a definite norm for it?’ The next section attempts to answer this question.

4.3 Searching for a Norm for English as an International Language in ELT (English language teaching)

English has become an international language as a communication tool for communication between both NSs and NNSs. It is used worldwide and there are many varieties developed in various regions. However, at the same time, when the varieties become so diverse with their own norms then English cannot serve as an international language. Given that many L2 speakers/learners of English learn English in educational settings, presenting norms for English as an international language should be promoted hereafter in this rapidly globalizing world. There have been attempts to identify the norms in English language teaching. However, before discussing them, it is necessary to define the terminologies used for teaching English as an international language.

4.3.1 Terminologies

4.3.1.1 English as a Lingua Franca (ELF)

According to Walker (2010), the term ‘lingua franca’ was originally used to refer to a pidgin used for commerce in ports in the Eastern Mediterranean in the Middle Ages. This first lingua franca was based on Italian, including elements of Arabic, French, Greek, Spanish and Turkish. Jenkins (2007) explains that the original lingua franca has “its plurilinguistic composition, then, clearly exemplifies an intrinsic and key feature of lingua francas: their hybrid nature” (p.1). Since historical lingua francas did not have

NSs, Jenkins claims that its strict interpretation of ELF is a contact language between people who do not have a common native language or culture, excluding “NSs of ENL (English as a Native Language)” (p.1).

Although there are some definitions for ELF, researchers of ELF observe data of the use of NNSs’ English in order to identify emerging norms for English as a common language among NNSs, as their shared interest. Jenkins (2007) clarifies her idea regarding ELF, as follows: “That is, ELF does not exclude NSs of English, but they are not included in data collection, and when they take part in ELF interactions, they do not represent a linguistic reference point” (p.3).

In other words, when referring to ELF, the subjects who are communicating in English is emphasized. In the case of ELF, the subjects are usually NNSs. Although NS are present in ELF communication, ELF has its own norms, different from the ones of NSs. Walker (2010) summarizes the definition:

Summing up, ELF represents a community of users of English. The members of this community are predominantly non-native speakers. Native speakers are not excluded, but if they wish to join the EFL community, they can only do this by respecting ELF norms. What native speakers cannot do in ELF contexts is to impose their particular set of native-speaker norms. Nor can they expect the members of the ELF community to adjust to these norms. (p.7)

4.3.1.2 English as a Global Language

Crystal (2003) refers to the English used extensively in the world as a “global language”. He presents the conditions necessary for a language to obtain global status. First of all, a global language needs to have not only a large number of L1 speakers, but also L2 speakers. Also, it needs to have an extensive geographical reach as L2, with special status as a second language (SL), or foreign language (FL) in each community. The situation is described in 4.1.2.

In order to obtain special status in a SL or FL community, there are two main methods, according to Crystal. First, the language should be an official language and

used in government, legal, media, and educational systems. Crystal states that English is an official language or has a special status in over 70 countries, such as Ghana, Nigeria, India, Singapore, and Vanuatu. Secondly, the language should be prioritized over other languages in the foreign language education in a country, even though the language does not have any official status. According to Crystal, English was the most frequently taught language in over 100 countries at the time of writing. Crystal declared that English had obtained an unchallenged global language status as follows:

Because of the three-pronged development- of first-language, second-language, and foreign-language speakers- it is inevitable that a global language will eventually come to be used by more people than any other language. English has already reached this stage. (p.6)

Consequently, the term English as a global language seems to emphasize its global status in the world, shedding light on its nature of spreading beyond national boundaries.

Jenkins (2007) refutes the term, ‘English as a global language’, since it does not provide clarity for the types of communication it represents. In addition, the term has the mistaken implication that English is spoken by all people everywhere.

4.3.1.3 English as an International Language (EIL)

Jenkins (2007) states that the terms, English as an international language (EIL) and English as lingua franca (ELF), are often confused with each other. Some researchers regard EIL as a blanket term for all the language use, regardless of NSs, or NNSs. Other researchers limit its use to interaction between NNSs.

Smith (1976) defines an international language as “one which is used by people of different nations to communicate with one another”, (p.38) and discusses international language in terms of its culturally neutral characteristics. McKay (2002) elaborates Smith’s notion of an international language, and defines EIL as below:

1 As an international language, English is used both in a global sense for international

communication between countries and in a local sense as a language of wider communication within multilingual societies.

2 As it is an international language, the use of English is no longer connected to the culture of Inner Circle countries.

3 As an international language in a local sense, English becomes embedded in the culture of the country in which it is used.

4 As English is an international language in a global sense, one of its primary functions is to enable speakers to share with others their ideas and culture. (p.12)

McKay (2002) summarizes her definition as that EIL “is used to communicate across linguistic and cultural boundaries” (p.38) and “whenever English is being used alongside other languages in a multilingual context as the unmarked choice for purposes for wider communication, English in some sense is being used as an international language” (p.38)

In other words, EIL focuses on the subject of communication and types of communication in the same way as ELF. Although McKay (2002) does not exclude NS from EIL communication either, she refers to EIL as English which is independent from L1’s cultural norms.

Seidlhofer (2005) maintains that “when English is chosen as the means of communication among people from *different* first language backgrounds, across linguacultural boundaries” (p.339), it is desirable to use ELF. This research defines EIL as English used in the type of communication defined by Seidlhofer when she refers to ELF. Furthermore, the detailed nature of EIL suggested by McKay (2002), is included in the definition of EIL. In this research, the term EIL is adopted hereafter.

4.3.2 Pedagogical Norm of EIL

When English disperses into different forms, it becomes mutually unintelligible among speakers with different L1. As a result, it cannot serve as an international language. With the era of rapid globalization, interest in promoting EIL in pedagogy and research is growing. Given that the ultimate aim of teaching/learning English for many NNSs is to teach/obtain capability to communicate in an international context, setting

norms of EIL for learners is a concern for researchers and educators. When thinking of norms for EIL, the question arises as to which English should be promoted as a model, and what can be regarded as standard English for EIL.

Researchers have discussed standard English, and promotion of (one) English as a norm(s). The discussions are mainly about determining the model as standard to present foreign/second language learners. For example, Quirk (1989) contends that promoting a variety of Outer Circle English in classrooms is “ill-considered reflexes of liberation linguistics” (p.23) and that the standard of L1 native norms should be promoted. He states as follows:

Filipinos, like Indians, Nigerians, Malaysians, are learning English not just to speak with their own country folk but link themselves with the wider English-using community throughout the world. It is neither liberal nor liberating to permit learners to settle for lower standards than the best, and it is a travesty of liberalism to tolerate low standards which will lock the least fortunate into the least rewarding careers. (pp.22-23)

In contrast to Quirk, Kachru (1985) affirms the norms of both Inner Circle native English-speaking communities and Outer Circle ones need to be recognized based on the actual situation of English use in the world. He insists on poly-model approaches in English language education since he believes recognizing the variety of norms does not lead to a lack of intelligibility.

Widdowson (1994) also suggests that when English “serves the communicative and communal needs of different communities”, standard English “develops endo-normatively, by a continuing process of self-regulation, as appropriate to different conditions of use” (p.386) in the same way as other varieties. Thus, no nation can have “custody” over English, and standard English is independent from Inner Circle norms.

Considering the norms of standard English for EIL, more specific descriptions regarding standard language, and standard English are necessary. Regarding the more specific definition, McKay (2017), for instance, defines standard language as below:

Standard language is the term generally used to refer to that variety of a language that is considered the norm. It is the variety regarded as the ideal for educational purposes, and it is usually used as a yardstick by which to measure other varieties. It largely reflects formal written English. (Italics in the original, p.35)

Stevens (1985) defines Standard English as follows:

a particular dialect of English, being the only non-localized dialect, of global currency without significant variation, universally accepted as the appropriate educational target in teaching English, which may be spoken with an unrestricted choice of accent. (p.88)

Trudgill (1999) explains that Standard English is “a social dialect which is distinguished from other dialects of the language by its grammatical forms” (p.125). According to him, Standard English is “purely social” and “no longer a geographical dialect” (p.125). Researchers like Trudgill regard Standard English as a dialect, that is a reason they use the capital letter for standard. Sato (1989) summarizes the two points of consensus regarding SE (Standard English). “(1) SE is not tied to a particular accent, and that (2) SE is generally associated with written language” (p.145).

Although researchers have discussed Standard English, there is not one definite model shown, nor concrete ideas about it. However, researchers have agreed that formal written language varies little among the varieties (e.g., Quirk,1989; McKay 2017). McKay (2017) indicates that the similarity of written language “will help maintain a core of English usage” (p.36).

4.3.3 Needs for Norms of Spoken Language of EIL

Whereas written language varies little among varieties, which leads to maintaining common usage of English, spoken language varies a great deal according to varieties. However, considering the communication patterns, oral communication is as important as the written one. Graddol (2006) shows that three-fourth of global journeys occurred

between non-English speaking countries in 2004. According to Graddol, this fact indicates “the scale for needs of face-to-face international communication and growing role for global English” (p.29).

Fraser (2000) focuses on the importance of oral communication in the Inner Circle for immigrants to Australia. She argues that the inability to converse easily in English does not only isolate the immigrants and obstruct their settlement, but also becomes the barrier to other learning “since so many forms of tuition, including the teaching of literacy, require spoken English as the medium of instruction” (p.7) .Fraser reports that while the unemployment rate of those who speak English “well” was 8%, the unemployment rate of those who speak “poorly” was 41% in 1999.

Considering standards and norms of EIL in terms of spoken language, it is essential to be mutually intelligible. Crystal (2003) describes the situation of the spread of English:

The pull imposed by the need for identity, which has been making New Englishes increasingly dissimilar from British English, could be balanced by a pull imposed by the need for intelligibility, on a world scale, which will make them increasingly similar, through the continued use of Standard English. At the former level, there may well be increasing mutual unintelligibility; but at the latter level, there would not. (p.178)

In order to maintain mutual intelligibility, then, what is crucial for EIL? Fraser (2000) indicates the importance of pronunciation as follows:

Being able to speak English of course includes a number of sub-skills, involving vocabulary, grammar, pragmatics, etc. However, by far the most important of these skills is pronunciation- with good pronunciation, a speaker is intelligible despite other errors; with poor pronunciation, a speaker can be very difficult to understand, despite accuracy in other areas. Pronunciation is the aspect that most affects how the speaker is judged by others, and how they are formally assessed in other skills. (p.7)

Jenkins (2000) also reports that communication breakdown in oral communication between NNSs obtained by her data were attributed to errors in pronunciation in most cases. Walker (2010) also argues that pronunciation intelligibility is the most important in EFL communication, and it should never be sacrificed to the speaker's accent to show his/ her identity.

As seen in chapter 3, MEXT stipulates “contemporary standard pronunciation” is to be taught at junior high schools as elements of English pronunciation in Japan. It has not been clarified what “contemporary standard English” is like, but it perhaps can be said that it is mutually intelligible pronunciation among speakers with various L1s, including native speakers of English. In other words, it can be referred to as “standard pronunciation” of EIL. In order to teach learners EIL, with the primary purpose of international communication, intelligible pronunciation needs to be emphasized in teaching spoken English.

Consequently, the primary purpose of pronunciation instruction is to “make learners intelligible to the greatest number of people possible, and not just to the native speakers of the language” (Walker, 2010, p.19). Thus, it is essential to search for norms of spoken language, particularly in pronunciation in terms of EIL. The next chapter will focus on what constitutes intelligible pronunciation in EIL.

4.4 Summary

This chapter has seen how English has become an international language based on the history of its spread, and current status of English. English is used not only by a large number of people, but also used beyond geographical and cultural boundaries worldwide. Since English has been used by many NNSs with different L1s and cultural backgrounds, many varieties have appeared to the extent it could be mutually unintelligible among people who use it as a common language. Therefore, there has been an attempt to maintain EIL core so that it can function as an international language, particularly in face-to-face international communication, or oral communication where intelligible pronunciation is essential.

Chapter 5

English Pronunciation Instruction and Intelligibility

5.1 Conceptual Framework of Intelligibility

5.1.1 Intelligibility as a Goal of Pronunciation Instruction

From around 1950 up to the 1970s, a lot of attention was given to the idea that ESL/EFL learners' main focus for pronunciation should be intelligible pronunciation. (e.g., Abercrombie, 1956). The discussion was put aside, however, when the Audio-Lingual Method became dominant in the 1970s, when pronunciation was prioritized the most in language classrooms, and learners were encouraged to acquire as close to native-like pronunciation as possible through practices, such as minimal-pair drills (Saito & Lyster, 2012).

In the case of Japanese learners, the Course of Study of English for junior high schools has stipulated that one objective of pronunciation for students is to speak English with “current and standard” pronunciation since the 1977 revision. This can imply that Japanese students are expected to speak with native-like pronunciation, even though it does not specify any L1 English, as stated in the Chapter 2.

The idea that ESL/ EFL learners should aim for native-like pronunciation seems to be deep rooted among educators and learners everywhere. For example, in a piece of research into 100 adult ESL learners in Canada, Derwing (2003) reported that the majority thought speaking with perfectly native pronunciation to be a desirable goal. Levis (2005) points out that pronunciation instruction has been influenced by two contradictory principles; these are the nativeness principle and the intelligibility principle.

When considering the nativeness principle, it has been discussed by researchers that it is almost impossible for adult learners who have passed a so called “critical period” (Lenneberg, 1967). Although some work has suggested that some learners with high motivation and language aptitude occasionally attain native-like proficiency in pronunciation, it is restricted to a very small number. Even though learners' motivation

which aims for native-like pronunciation should never be denied, at the same time it is important to accept the “logical conclusion that aiming for nativeness was an unrealistic burden for both teacher and learner” (Levis, 2005, p.370). In a country like Japan where English is not used in general and taught as a foreign language, such a goal is particularly unrealistic. Therefore, both teachers and learners should focus on other goals.

In terms of the intelligibility principle, as early as around 1950, Abercrombie (1956) insisted that learners need to have “comfortably intelligible pronunciation” (p.37). Morley (1991) also suggests that the first goal of pronunciation that learners should target is “functional intelligibility,” that is, “the intent to help learners develop spoken English that is (at least) reasonably easy to understand and not distracting to listeners” (p.500).

Given the current situation in Japan, the author considers the above-stated “comfortable” or “functional” intelligibility as a pronunciation goal for Japanese EFL learners. When referring to learners’ intelligibility, this means both oral and written intelligibility. However, this study restricts its scope to oral intelligibility.

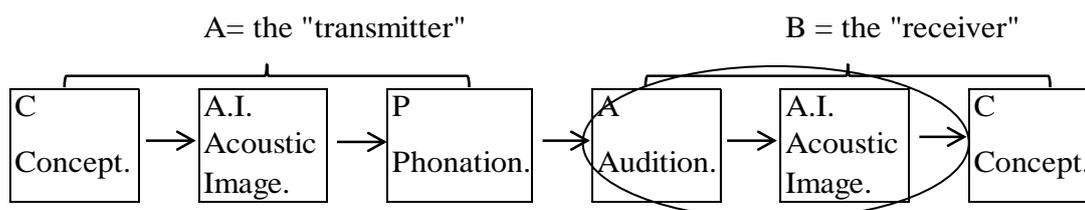
5.1.2 Place of Intelligibility in Oral Communication

5.1.2.1 Intelligibility as the First Step in Message Understanding in Oral Communication

Before discussing intelligibility, it is imperative to understand where phonological intelligibility is located in the process of oral communication. Researchers have identified the process of speech (production) and communication. Palmer (1924) showed the process as in the Figure 5.1.

Figure 5.1

The Six Primary Speech Habits (Palmer 1924, p.327)

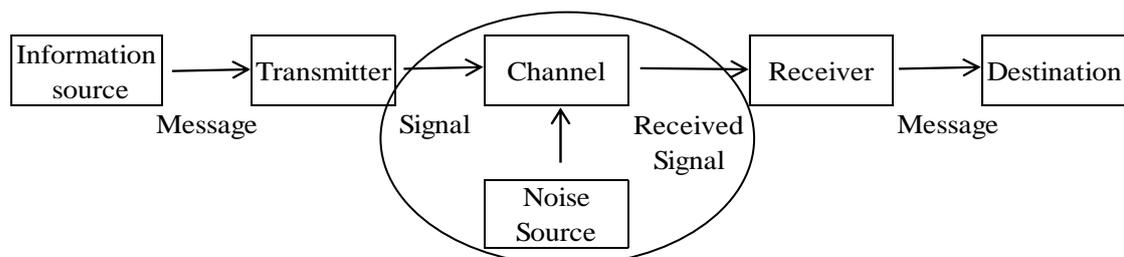


Shannon (1948) also indicated a communication system shown in Figure 5.2 below. When discussing methods of modulation “which exchange bandwidth for signal -to-noise ratio” (p.2), Shannon provided a communication model which can be applied to a general theory of communication. According to him, communication consists of five essential components as follows:

1. An *information source* which produces a message or sentence of messages to be communicated to the receiving terminal.
2. A *transmitter* which operates on the message in some way to produce a signal suitable for transmission over the channel.
3. The *channel* is merely the medium used to transmit the signal from transmitter to receiver.
4. *The receiver* ordinarily performs the inverse operation of that done by the transmitter, reconstructing the message from the signal.
5. *The destination* is the person (or thing) for whom the message is intended. (p.2)

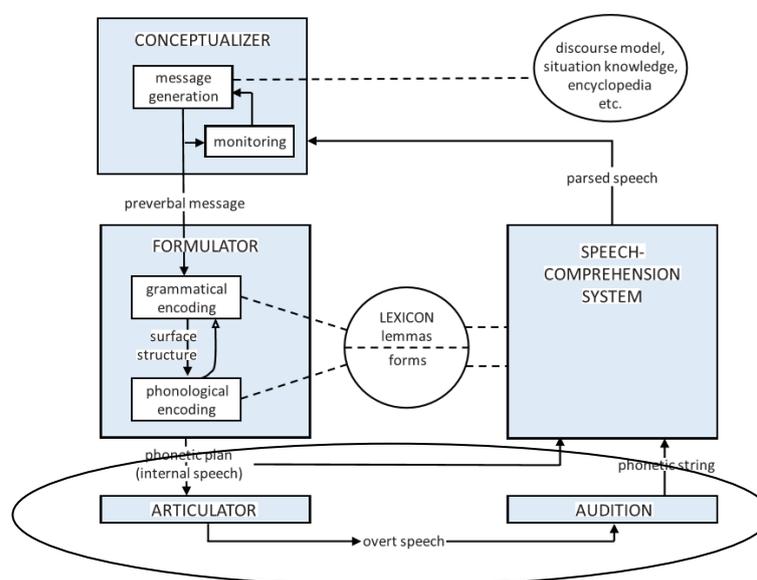
Figure 5.2

Schematic Diagram of a General Communication System (Shannon, 1948, p.2)



Levelt (1989) indicated a model of speech production consisting of “a number of processing components, each of which receives a certain kind of input and produces a certain kind of output” (p.8).

Figure 5.3
A Blueprint for the Speaker. (Levelt, 1989, p.9)



Oral intelligibility as the first stage of understanding a message is involved in the ovals seen in the respective figures above (The ovals were added to the figures by the author). This means that a speaker's oral intelligibility is a basic condition for a listener in order to establish communication as indicated by Munro and Derwing (2015) who stated that "intelligibility has long been understood to be a fundamental requirement for effective communication" (p.377).

5.1.2.2 Other Higher-level Factors Required for Oral Communication

As seen in the previous section, intelligibility of pronunciation is a fundamental requirement in understanding messages of oral communication for a receiver. Furthermore, other higher-level factors have been discussed in the pronunciation research.

Catford (1950), for instance, states that utterances need to be not only intelligible but also effective in order to function in successful communication. According to him, when a listener understands what his/her interlocutor says, the speech is intelligible, but it is not effective unless the listener responds according to the speaker's intention.

Also, Smith and Nelson (1985) divided the general term of intelligibility into three

tripartite definitions for establishing communication.

- (1) intelligibility: word / utterance recognition,
- (2) comprehensibility: word / utterance meaning (locutionary force),
- (3) interpretability: meaning behind word / utterance (illocutionary force). (p.334)

Pickering (2006) describes these definitions of Smith and Nelson as:

intelligibility; the ability of the listener to recognize individual words or utterances;
comprehensibility; the listener's ability to understand the meaning of the word or utterance in its given context, and *interpretability*, the ability of the listener to understand the speaker's intention behind the word or utterance. (p.2)

Although Pickering refutes the definition of interpretability since “divining a speaker’s intension is understandably difficult to measure”, she acknowledges that there is a clear distinction between “matters of form” which consists of “formal recognition or decoding of words and utterances” and “matters of meaning” which is “variously described as ‘comprehensibility,’ ‘understanding,’ or ‘communicativity’”(p.2).

Munro and Derwing (1995) define three terminologies of perspectives to judge non-native speakers’ (NNS) utterances. They are intelligibility, comprehensibility, and accentedness. According to them, “*Intelligibility* refers to the extent to which an utterance is actually understood”, comprehensibility refers to “listeners’ perceptions of difficulty in understanding particular utterances” and accentedness refers to “how strong the speaker’s foreign accent is perceived to be” (p.291). Their research shows that accentedness is independent from intelligibility and comprehensibility, which explains why strongly accented utterances are not necessarily unintelligible.

As seen above, in order to establish successful oral communication, it is evident that ESL/EFL learners’ speech should have certain features, and not only intelligibility, as a fundamental requirement. These should include higher factors such as, “effectiveness”, “comprehensibility”, “interpretability” and “matters of meaning”.

However, in this paper, the focus is solely on intelligibility as a fundamental requirement for oral communication.

5.1.3 Intelligibility as Speakers' Responsibility

When discussing intelligibility, the question arises as to who (what) is responsible for generating intelligibility? Smith and Nelson (1985) state that “intelligibility is not speaker or listener-centered but is interactional between speaker and hearer” (p.333). Bomgbose (1998) also claims that in communication, both speaker and listener are responsible for its interpretation and a listener contributes to a speech act in “making an allowance for the accent and peculiarities of the other person’s speech” (p.11). In discussing aspects of intelligibility according to context, Levis (2005) claims that “intelligibility assumes both a listener and a speaker, and both are essential elements for communication” (p.372).

Regarding the perspective of intelligibility research, Rajadurai (2007) points out that “past attempts to define and measure intelligibility have not only failed to attach sufficient importance to the role of the listener, but have also neglected the role of the speaker to accommodate receptively and productively to interlocutors” (p.91).

It is evident that intelligibility is a complex phenomenon involving factors related to the speaker and the listener, the linguistic and social context, and the environment. However, this paper restricts the agent that is responsible for intelligibility to the speaker, following the narrow definition of intelligibility by Smith and Nelson (1985), which is word/utterance recognition. In this paper, the author would like to define intelligibility as the extent to which listener recognizes what a speaker intended to convey. For example, the author would like to consider pronunciation intelligible when a listener recognizes the word “right” pronounced and intended by a speaker, not the word “light”.

5.1.4 From Intelligibility to Global Intelligibility

In the preceding sections, it has been stated that intelligibility is a fundamental requirement of oral communication. The following section looks at patterns of oral communication in English.

Oral communication patterns of English are changing due to the increasing globalization of the English language, where there is more communication occurring between non-native speakers (Graddol, 2006) as shown in Chapter 4. In Figure 5.4, Levis (2005) shows the “context sensitivity of intelligibility in terms of a native speaking-nonnative speaking (NS-NNS) listener-speaker matrix for assessment”. The four Quadrants respectively represent “different aspects of intelligibility and suggest different priorities for language instruction” (p.372).

Figure 5.4

Speaker-Listener Intelligibility Matrix (Levis, 2005, p.382, Figure1)

		LISTENER	
		Native Speaker	Nonnative Speaker
SPEAKER	Native Speaker	A. NS → NS	B. NS → NNS
	Nonnative Speaker	C. NNS → NS	D. NNS → NNS

As seen in the Figure 5.4, Quadrant A has NS speakers and listeners who belong to different L1 communities. Research on oral communication between native speakers (NS) assumes that the speakers’ varieties are mutually intelligible, but it also shows that NS communication is not as simple as one would expect (e.g., Voegelin & Harris, 1951).

As pointed out by Levis (2005), Quadrant B, which includes NS speakers and NNS listeners, is a general configuration for language instruction in an ESL context. It is also “the norm for most language instruction beyond ESL contexts, in which print and audio materials are based on NS models” (p.372).

Quadrant C reflects the scope of most current research on intelligibility, where NS listeners judge NNS’s utterances. For instance, Nelson (1982) describes his study as follows:

Being Intelligible means being understood by an interlocutor at a given time in a given situation. We want to examine whether a speaker of a non-native variety of

English is intelligible to a speaker of a native variety, and if not, why not. If the speech is considered understandable but "marked" (as non-native), again we would like to examine the parameters on which the native speaker's impressions are formed. (p.59)

Quadrant D reflects communication between NNS speakers and NNS listeners, where English serves as the lingua franca, or EIL (English as international language).

According to the more complex context of EIL, Levis (2005) introduces another matrix (Figure 5.5), adding a third type of English user shown in Kachru (1988)'s three circles of Englishes.

Figure 5.5

World Englishes Speaker-Listener Intelligibility Matrix (Levis, 2005, p.383)

		LISTENER		
		Inner-Circle (IC)	Outer-Circle (OC)	Expanding Circle (EC)
SPEAKER	Inner-Circle	<i>IC-IC (NS-NS)</i>	1. IC-OC	<i>IC-EC (NS-NNS)</i>
	Outer-Circle	2. OC-IC	3. OC-OC	4. OC-EC
	Expanding Circle	<i>IC[sic]-IC (NNS-NS)</i>	5. EC-OC	<i>EC-EC (NNS-NNS)</i>

The four italicized corners of the matrix are the same communication patterns shown in Figure 5.4, but Levis states that the five bolded sections of the matrix remain relatively unexplored. Regarding Quadrants 1 and 2, Levis cites an instance of graduate teaching assistants from Outer Circle countries such as India is tested for spoken English proficiency "even when their English proficiency is otherwise indistinguishable from Inner Circle graduate students" (p.374). Thus, as pointed out by Levis, in these Quadrants, the issue does not lie on Outer Circle speakers' overall English proficiency, but on their accents. Regarding Quadrant 3, Levis states that it possesses the same nature

of NS-NS communication where Outer Circle listeners have difficulties with the unfamiliar accents of their interlocutors. Regarding Quadrants 4 and 5, where there is no Inner Circle speaker, their characteristics are similar to NNS-NNS communication whose pronunciation issues may cause breakdowns in communication.

The two matrixes, in particular the second matrix (Figure 5.5), show the complicated nature of the current EIL communication context. However, there is relatively little research on intelligibility in Quadrant D in Figure 5.4, and Quadrants 1-5 in Figure 5.5.

Regarding the focus of research in terms of measuring NNSs' speech intelligibility, Bomgbose (1998) argues that "It used to be thought that such intelligibility was a one-way process in which non-native speakers are striving to make themselves understood by native speakers whose prerogative it was to decide what is intelligible and what is not" (p.10).

In an increasingly globalized world, it is essential to pay more attention to intelligibility occurring in the scopes of the Quadrants above where there are no Inner Circle speakers or listeners. As Walker (2010) states, "what has not changed is the focus on the native speaker as the interlocutor...it should be clear that this assumption does not correspond to the principal use of English today" (p.26).

Jenkins (2000) stresses the importance of intelligibility research on oral communication between NNSs, stating that "As far as EIL (English as an International Language) is concerned, however, we are interested not in intelligibility for 'native-speaker' receivers but for participants in interlanguage talk, i.e. NBESs (Non-Bilingual English Speakers)" (p.93).

With the situation of Japanese learners in mind, the reality is that there is a high probability that they communicate with both NS and NNS. Therefore, this paper focuses on "global intelligibility" proposed by Moedjito (2009). This is "intelligibility required for the interaction between NSs and NNSs as well as the interaction among NNSs" (p.79) in the context of Quadrants C and D in the Figure 5.4, and Quadrants 4 and 5 in Figure 5.5.

5.2 Proposed Factors Determining Global Intelligibility

When the pronunciation instruction goal is to set intelligible pronunciation, the next issue to consider is to identify factor(s) determining intelligibility. In their review of research on pronunciation instruction, Thomson and Derwing (2014) suggest that 82 % of the research reported that the learners' pronunciation had improved significantly through pronunciation instruction. Given that explicit pronunciation instruction benefits learners in intelligible pronunciation, the priorities of pronunciation factors for instruction need to be decided. In most ESL/EFL classrooms, time devoted to pronunciation instruction is limited, thus identifying the priorities is crucial, as pointed out by Munro and Derwing (2015):

To ensure the most effective use of time, it is best to direct the most attention to pronunciation problems that are unlikely to resolve themselves in the long run without explicit intervention and to devote class time to difficulties that are shared by many or all students in the class. (p.392)

5.2.1 Previous Research on Factors Determining Intelligibility

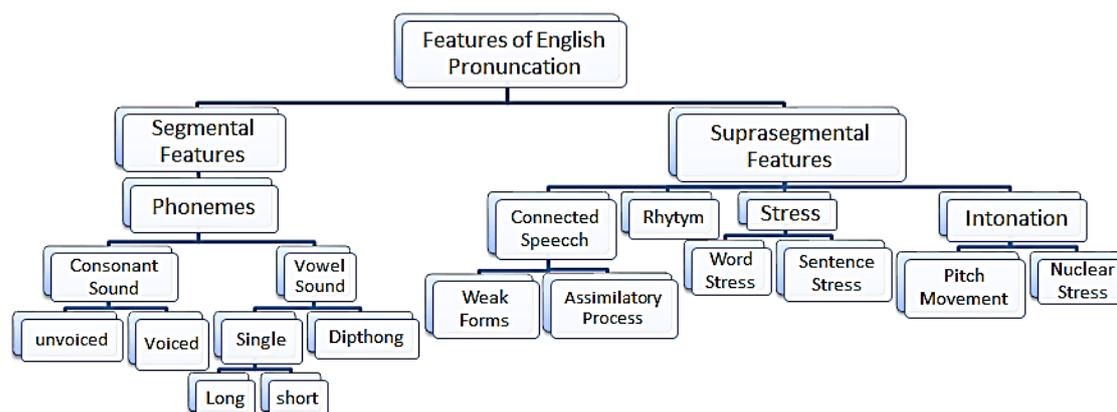
As stated in the previous section, most of intelligibility research has focused on communication between NNS as a speaker and NS as a listener. In other words, NNS's phonological intelligibility has been studied to determine if their pronunciation was intelligible to NS listeners. Thus, priorities of pronunciation work for learners have been influenced by beliefs about how NSs make themselves understood to other native speakers. Based on this belief, until 1980s, pronunciation instruction had focused on segmentals, that is attainment of specific phonemes (Walker, 2010).

Figure 5.6 shows the various features that compose English pronunciation. In the history of intelligibility research prior to 1980s, segmental features were prioritized. At that time, in ESL/ EFL classrooms, it was generally accepted that after mastering segmental features, learners could proceed to the next stage, that is, suprasegmental features. As Walker (2010) states, "Experts felt that stress, rhythm, intonation, and certain characteristics of connected speech were only appropriate for advanced learners"

(p.25).

Figure 5.6

The Various Features of English Pronunciation (Gilakjani,2012,p.120)



After the advent of Communicative Language Teaching (CLT), the priority on segmentals was questioned and conversely, researchers started to insist that suprasegmentals be prioritized in pronunciation instruction. Walker (2010) describes the shift of priority as follows:

Analysis of how native speakers used stress, rhythm, and intonation to construct their spoken messages led to the conclusion that learners needed to focus their attention on these features, rather than on individual sounds. (p.26)

Celce-Murcia et al.(1996) state that at that time many researchers focused on foreign/second language learners' acquiring the following features; 1) intonation, 2) rhythm, 3) connected speech, 4) voice quality settings (p.26). They also insist that pronunciation errors involving suprasegmentals and connected speech are more serious than errors involving segmentals as follows:

Learners who use incorrect rhythm patterns or who do not connect words together are at best frustrating to the native-speaking listener, more seriously, if these learners

use improper intonation contours, they can be perceived as abrupt, or even rude, and if the stress and rhythm patterns are too non-native-like, the speakers who produce them may not be understood at all. (p.131)

Fraser (2001) states that the priority of pronunciation instruction should be based on listeners' needs in communicative teaching, and a pronunciation curriculum should help learners acquire factors making them understood. According to her, a lot of research on psycholinguistics has shown NS listeners respond to stress patterns much more than to individual phonemes. Based on the findings, she presents the instructional order as follows:

1. word and sentence stress
 2. syllable structure (final consonants, consonant clusters)
 3. vowel length distinctions
 4. major consonant distinctions (those with a high functional load, e.g. S/sh, f/p)
 5. vowel quality distinctions
 6. minor consonant distinctions (those with a low functional load, e.g. Th, v/w/)
- (p.33)

Whether the focus is on the segmental or suprasegmental, much research has been undertaken in an attempt to identify the factors influencing intelligibility. In their research examining how segmental accuracy and prosodic features influenced the overall impression of NNS pronunciation, Anderson-Hsieh et al. (1992) report that prosodic feature was the most strongly related to intelligibility and accentedness. On the other hand, some studies report that segmental errors influence intelligibility more seriously. (e.g., Fayer & Kransinski, 1987; Koster & Koet, 1993).

In an attempt to observe the impact of instructional interference, Derwing et al. (1998) divided L2 learners into three groups; Group 1 received an explicit pronunciation instruction which focused on segmental features. Group 2 received an explicit pronunciation instruction which focused on global (suprasegmental) features. Group 3

received general pronunciation instruction. After 12 weeks of each pronunciation instruction, they found that Group 1 showed the most improvement in accentedness in a reading aloud task. Group 2 showed the most improvement in comprehensibility and fluency in an extemporaneous narrative task. From the results attained in the research, they declare the importance of both segmental and suprasegmental features according to case:

attention to both global and segmental concerns benefits ESL students. In the case of a communication breakdown caused by a mispronunciation, a student who has received segmental training might be able to focus on the mispronounced form in a self-repetition. On the other hand, global instruction seems to provide the learner with skills that can be applied in extemporaneous speech production, despite the need to allocate attention to several speech components. (p.407)

In another piece of research examining the effect of instructional interference, Saito and Lyster (2012) investigate whether Japanese ESL learners could improve /ɹ/ after they received FFI (form-focused instruction) and CF (corrective feedback). They report that the group that had received both FFI and CF using recast improved their pronunciation of /ɹ/ significantly, while the group that had received only FFI did not improve their pronunciation of /ɹ/. The research findings by Derwing et al. (1998), and Saito and Lyster (2012) have given valuable insights into the effect of instructional interference, which can be applied to instruction in foreign/second language classrooms.

Regardless of priority on either segmentals or suprasegmentals, the research findings discussed above seem to imply that not all the pronunciation features influence intelligibility equally. Also, as stated in the previous section, there is relatively little research into communication with NNS as the listener. Therefore, more research identifying contributing factors to intelligibility not only from NS's perspective, but also that of NNS's is needed.

5.2.2 Factors Determining Intelligibility in International Communication

In an increasingly globalized world with English establishing its position as a global language, some researchers have started to focus on intelligibility from the point of view of the NNS. Bansal (1990) for instance, points out the pronunciation errors which damage oral intelligibility in communications between NNSs in India as follows:

- (i) Lack of clear articulation, with parts of the utterance slurred over and sometimes even important words not coming out clearly
- (ii) Accent on the wrong syllable of a word, which sometimes distorts the phonetic shape of the word completely.
- (iii) Substitution of a different vowel or consonant for the one normally used in English. (p.229)

The features include both segmentals and suprasegmentals. The list is referential in order to realize the features when one focuses on his/her pronunciation in engaging in oral communication, but they are rather phenomena and not details of pronunciation features.

After examining communication breakdowns between NNS students and finding out that pronunciation was found to be the most important cause of breakdowns in EIL (English as international language), Jenkins (2000) proposed *lingua franca core* composed of phonological features which are essential in EIL, with communication between NNSs in mind. Table 5.1 shows the features

The *lingua franca core* (LFC) is innovative in terms of presenting the core phonological features which are crucial for intelligibility in EIL communication, and in particular, the attempt to reduce functional load for both teachers and learners by simplifying English phonology and to adopt more widely and simply used versions. For example, Jenkins chose rhotic ¹³[ɹ] rather than other varieties of /r/, such as RP's

¹³ Phonemes are enclosed between slanted lines // and allophones are enclosed in square brackets [].

¹⁴(Received Pronunciation) post-alveolar approximant [ɹ]. Non-rhotic varieties do not pronounce ‘r’ when it comes after a vowel or before a consonant as in words like ‘car’ and ‘card’. She states that the reason for choosing rhotic [ɹ] is that “the ¹⁵GA variant is simpler for both production as there is only one version to acquire, and for reception as it is always realized regardless of which sound follows” (p.141).

Table 5.1
The Lingua Franca Core proposed by Jenkins

segmental / suprasegmental	phonological area	specifications	example
segmental	individual consonant sounds	• rhotic [ɹ] rather than other varieties of /r/	
		• intervocalic /t/ rather than rather than [ɾ]	matter [mætə] instead of [mæɾə]
		• most substitution of /θ/ /ð/, and [h] are permissible	little [lɪt] instead of [lɪtʰ]
		• close approximations to core consonant sounds generally permissible	
		• certain approximations not permissible (i.e. where there is a risk that they will be heard as a different consonant sound from that intended)	
		• aspiration following the fortis plosive /p//t/, and /k/	kick [kʰɪk]
		• fortis/lenis differential effect on preceding vowel length	seat [sɪ:t] sieve [sɪv]
	group of consonants (clusters)	• initial clusters not simplified	product not as [pɒdʌk]
		• medial and final clusters simplified only according to L1 rules of elision	
	vowels	• maintenance of vowel length contrasts	mate-made
		• L2 regional qualities permissible if consistent, but /ɜ:/ to be preserved	bird
suprasegmental	nuclear stress placement	• nuclear stress production and placement and division of speech stream into word group	1. I've rented a FLAT. 2. I've RENTED a flat. 3. I'VE rented a flat.

Conversely, Jenkins chose RP intervocalic /t/ rather than GA [ɾ] for the same reason. When the word “matter” is pronounced by GA, it is pronounced as [mæɾə], where intervocalically /t/ becomes the voiced flap [ɾ]. In RP, it is pronounced [mætə], and again it “has a more reliable relationship with the orthography, and because one of the chief principles underpinning the LFC is to simplify the learning task as far as it is realistically possible, the RP variant of /t/ is the one selected for the LFC” (p.140).

¹⁴ Received Pronunciation refers to the pronunciation system which have been used in Southeast area of England, with London as the center. It is not restricted to one area, but it is said to be spoken by well- educated people. With the change of time and people’s attitude towards social classes, there have been more variety of pronunciation, such as Estuary English, being accepted widely.

¹⁵ General American

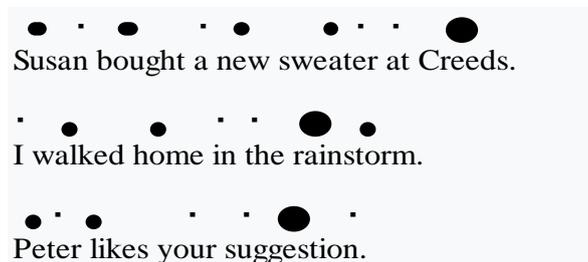
According to Jenkins, regarding other phonemes, such as dental fricatives /θ/ /ð/, substitutions of these phonemes did not impair phonological intelligibility in her data of examining ESL students' interactions. Overall, she encourages learners to approximate rather than "to imitate exactly the RP and GA consonant sounds" (p.143). Certain approximations which generally derived from L1 transfer, however, were found to be problematic in EIL intelligibility. For example, one example of approximation excluded from LFC is the Japanese substitution of the bilabial fricative "[ɸ] for /h/ followed by /u:/ for example, in the word 'who' and for /f/ for example, in the word 'football'" (p.143). This substitution derives from Japanese interference. Jenkins explains that this kind of approximation "might be considered phonetically close enough to the target sound to be regarded as a L2 regional variant, and yet which were problematic for intelligibility in the data upon which the LFC is based" (p.144).

Contrary to the thorough repertoire of core segmental features, Jenkins included only two suprasegmental features as LFC. They are nuclear stress and division of speech stream into word groups. As I will discuss in the next section, in spoken English, one syllable in each word group is stressed, which is pronounced louder, longer and higher in pitch. In discussing Jenkin's LFC, Walker (2010) states that "the most significant pitch movement (tone) in the word group is called the nucleus (or tonic). The correct placement of nuclear stress is important for intelligibility in ELF" (p.36). Jenkins (2000) divides nuclear stress into two patterns; "unmarked (on the last content word in the word group)" and "contrastive" (p.153). In both cases, Jenkins claims that nuclear stress is a crucial key to the speaker's intended meaning.

It highlights the most salient part of the message, indicating where the listener should pay particular attention. And contrastive stress is especially important in English, as the language does not have morphological or syntactic resources that many other languages have to highlights contrasts: English has few inflections, and its word order is relatively inflexible. (p.153)

Regarding "unmarked" nuclear stress, in English sentences, every content word receives

stress, but major sentence stress is usually on the last content word in a sentence as seen below:



(Avery and Ehrlich, 1992, p.75)

Walker showed the example of nuclear stress placement as seen in Table 5.1. Sentence 1, “I’ve rented a FLAT,” is a ‘neutral’ or ‘unmarked’ way of saying this phrase with the nuclear stress falling on the last lexical item. It emphasizes the type of accommodation the speaker has taken. In sentence 2, “I’ve RENTED a flat,” the nuclear stress is on the word ‘rented’ and it shows that the speaker has not bought a flat. In sentence 3. “I’VE rented a flat,” emphasis is on the fact that it was the speaker who rented the flat, and not some other person mentioned in the conversation.

Jenkins (2000) conducted an experiment to test her hypothesis that both NS and NNS rely on correct nuclear placement in order to interpret messages. In the experiment, both L1 and L2 speakers of English were recorded reading sets of questions beginning in the same way but ending differently as follows:

Did you buy a tennis racket at the sports centre this morning, or

- was it a squash racket?
- did you buy it yesterday?
- did you only borrow one?
- was it your girlfriend who bought it?
- at the tennis club

(pp.153-154)

Jenkins then removed the second halves of the speech and asked the participants to predict the second half in each case. As a result, L1 speakers placed contrastive stress appropriately and predicted all of the L1 speakers' second halves correctly. L2 speakers predicted approximately two-thirds of the L1 speakers' second halves correctly. Conversely, L2 speakers did not place appropriate contrastive stress in most of the first halves, which led to the low scores of both L1 and L2 speakers' predicting the second halves. Based on the experiment and other NNSs' interactional data, Jenkins claims that nuclear stress is crucial in EIL intelligibility. Also, she points out that the rules of nuclear placement, both marked and contrastive, are simple enough for teachers to teach and learners to master in the classroom.

Other than nuclear stress and ¹⁶tone unit referred to by Jenkins, or “word group” referred to by Walker (2010), Jenkins excluded other suprasegmental features that have been considered important in a speaker's intelligibility in general. Walker (2010) listed the non-core features, including both segmentals and suprasegmentals suggested by Jenkins as follows:

- /θ/ /ð/, and dark /l/
- exact vowel quality
- pitch movement (tone)
- word stress
- stress-timing
- vowel reduction, schwa, and weak forms
- certain features of connected speech-linking, assimilation, coalescence

(p. 38)

When considering these non-core features, a question arises; Are they really of no importance to intelligibility in EIL? Even in an increasingly global era, it is important to take reality into consideration, such as learners' needs, actual chances of interacting with

¹⁶ Jenkins defines tone unit as “the way in which English speakers divide their utterances into smaller meaningful units, or chunks, each containing one nuclear syllable” (p.155)

both NS and NNS, and motivation. Although, lingua franca is defined as “a term focused on the forms of English which emerge when English serves as the default language communication between speakers of different first languages”(Murphy, 2014, p.259), it does not mean that there is no chance of having NS interlocutors in lingua franca, or EIL communication, nor that we can exclude NS from the situation.

As a NNS, this author also has doubts about word stress as a non-ELF-core feature. It seems to have an impact on intelligibility. In Field (2005)’s research examining both NSs and NNS’s lexical recognition, it is reported that mis-assigned stress significantly impeded intelligibility for both NSs and NNSs. As Jenkins (2000) herself admits “word stress has a corresponding effect of the nuclear stress”, therefore, it “cannot be dismissed lightly” (p.150), since word stress is related to nuclear stress, it seems to be necessary to pay attention to both of them.

Moedjito (2009) argues that Jenkins does not discuss the features determining intelligibility from both NS and NNS’S perspectives. Moedjito suggests that “unlike the factors of comfortable intelligibility (e.g., Celce-Murcia et al.,1996; Morley, 1991; Walker, 2010) or mutual intelligibility (e.g., Jenkins, 2000; 2002), very limited information is available for EFL teachers about factors determining global intelligibility” (Moedjito, 2009, p.85) Based on his concept of “global intelligibility” that is, “intelligibility required for the interaction between NSs and NNSs as well as the interaction among NNSs” (p.79), this research focus on global intelligibility from the view point of Japanese EFL teachers and learners.

5.3 Japanese Learners’ Intelligibility

5.3.1 Previous Studies on Japanese Learners’ Intelligibility

There is still relatively little research on Japanese learner’s phonological intelligibility. For example, in order to investigate how speakers’ intelligibility affect listeners’ own language background and their experience with different speech varieties, Munro et al. (2006) examined speech intelligibility of accented English utterances by Cantonese, Japanese, Mandarin, Polish and Spanish speakers, with Cantonese, Japanese, Mandarin and English speaker as evaluators of the utterances. The results show

intelligibility scores, comprehensibility and accentedness ratings by listener groups had moderate to high correlations regardless of their background L1 language. Even though the study did not intend to show and focus on Japanese ESL speakers' intelligibility, it was reported that the Japanese speakers of the study had relatively intelligible pronunciation. However, they were students who had studied in Canada, as university or graduate students, not general EFL learners, as pointed out by Kashiwagi and Snyder (2013).

Regarding studies targeting Japanese EFL learners who lived in Japan, Bradlow et al. (1997) report that Japanese university students improved their distinctive production of /r/-/l/ significantly after they had received /r/-/l/ perceptual identification training even though they had not received any production training. The study supports “the intuitive practice of using perceptual training tasks such as discrimination and identification exercise in the classroom (Gilbert, 1993)” (Derwing & Munro, 2005, p.388).

Regarding investigating pronunciation errors impairing intelligibility, Yamane (2006) extracted 52 words containing pronunciation errors from utterances of 80 Japanese EFL learners, and then presented them to 48 NSs. As a result, when the NSs were asked to predict a single word the speakers intended to say, they had difficulty in identifying the words. However, when the words were presented in sentences, they could predict them more precisely. He also categorized the pronunciation errors into 1. misplaced stress on words, 2. vowel addition, 3. vowel substitution, 4. consonant substitution, and 5. consonant deletion. As a result, consonant deletion was found to impact on intelligibility the most. This result corresponds with Jenkins' (2000) claim that consonant deletion is more of a threat to intelligibility. She provides the example of a contrast of consonant deletion and vowel addition, when a Japanese learner produced the word ‘product’ as [pə'rdʌkɔtə] whereas a Taiwanese learner produced it as [pɒdʌk]. The former was intelligible to the learner's NNS interlocutor, however, the latter was not (p.142).

In studies which had both NSs and NNSs as raters of Japanese learners' intelligibility, Kashiwagi and Snyder (2008), Kashiwagi and Snyder (2010) examined Japanese university students as subjects of the studies. In their two studies, quasi-

independency of intelligibility and accentedness in Japanese learners' speech was confirmed. It was also reported that among the pronunciation errors, segmental features, in particular, vowel error, were found to affect overall intelligibility. Kashiwagi and Snider (2013) conducted other research with NSs and NNSs raters living in America who were not familiar with Japanese learners' English, since the rater in their two studies above were American and Japanese teachers who had taught English in a university in Japan, and they were accustomed to Japanese learners' English. In the study, they had Japanese learners read aloud sentences and raters transcribe what they heard. Intelligibility data was attained by the percentage of coincidence of words in the original passages. The result was that Japanese university students tended to have problems with segmentals, and, in particular, with NNSs as raters, it led to low intelligibility.

Moedjito (2009) investigated nine factors that were thought to affect the intelligibility of Japanese high school students with NSs and NNSs as raters. He used the five-point Likert scale to rate the learners' overall intelligibility and the nine factors as follows:

- (1) sound accuracy, (2) word stress, (3) lexical accuracy, (4) grammatical accuracy,
- (5) adjustments in connected speech, (6) sentence stress, (7) intonation, (8) rhythm,
- (9) fluency (p.87).

As a result, with NS raters, sound accuracy, word stress, lexical accuracy, adjustments in connected speech, and sentence stress significantly correlated with overall intelligibility. Among them, word stress was the most significant factor. On the other hand, with NNSs as raters, sound accuracy was the most significant, and word stress, sentence stress, intonation and rhythm were found to be significantly correlated with overall intelligibility. This result supports Jenkins' claim that NNSs are more dependent on segmentals, and with NNS interlocutors, segmentals are crucial in intelligibility.

As stated, some research including or focusing on Japanese learners has been conducted in terms of the listener's variables, such as L1 backgrounds, as in the research of Munro et al. (2006), the effect of instructional interference, such as the research of

Bradlow et al. (1997) , and identifying contributing factors to intelligibility, such as the research of Yamane (2006), Kashiwagi and Snyder (2008; 2010; 2013), and Moedjito(2009)

These findings have presented valuable insights into understanding Japanese EFL learner's intelligibility and instructional direction in pronunciation. However, further research is necessary. Given that many factors impairing Japanese learners' intelligibility derive from L1 transfer, it is important to list the phonological features of Japanese language that are different from English, which lead to L1 transfer.

5.3.2 Theoretical Framework for Capturing Japanese Learners' Intelligibility

It goes without saying that the Japanese language is radically different to English in many ways, one of them being phonological features. They are so different that Japanese learners have difficulty in mastering them. This section looks at the phonological differences which seem to have impacted on Japanese learners' intelligibility between Japanese and English languages.

5.3.2.1 Suprasegmental Features

Syllable

The salient difference between the Japanese and English languages lies in syllable structure. The Japanese language has syllables consisting of consonant (C) and verb (V), such as *té* (hand) and *ki* (tree). Languages with this syllable structure are called open syllable languages. On the other hand, English is a closed syllable language. English syllable structure is more complicated than most other world languages (Brown, 2015; Jenkins, 2000). It frequently has syllables and words which end in consonants and have a lot of complex consonant clusters. English syllables consist of one vowel alone or a vowel with up to three preceding and/or up to four following consonants, such as strength and prompts.

Japanese learners tend to apply the CV structure when they pronounce English syllables and words by inserting vowels after consonants as follows:

English	Japanese
strength	
[streŋkθ]	[suutoɾɛnsu]
ccvcccc	cvcvcvccv

As seen in the example, since Japanese basically does not have consonant clusters, Japanese learners tend to pronounce monosyllabic words as polysyllabic. This tendency of Japanese learners also derives from the orthography. The kana (hiragana and katakana) letters coincide with actual pronunciation. This means the writing system is based on the syllable, rather than the individual vowel and consonant sounds. Brown (2015) calls this kind of writing system “syllabic writing systems” or syllabaries” (p.86). For example, the letter representing the combination of the phonemes /ka/ is represented by one letter (か). In other words, the name of the letter is same as the actual sound. On the other hand, in the English spelling system, there is often no one-to-one correspondence between the sounds and the letters.

Furthermore, phonics is not explicitly taught in English classes in the Japanese school system. A lot of English pronunciation commercial textbooks sold in Japan for general Japanese learners emphasize phonics, consonant clusters and syllable division (e.g., Shizuka, 2019; Uekawa & Jeana, 2007). However, these features are usually not emphasized in schools or designated textbook used in schools, as shown in Chapter 2.

Word Stress

When English words are pronounced, stress is always put on one syllable, which leads to a strong-weak pattern (Kubozono, 1998). Richards et al. (2000) define phonological stress as:

the pronunciation of a syllable or word with more respiratory energy or muscular force than other syllables or words in the same utterance. A listener often hears a stressed word or syllable as being louder, higher in pitch, and longer than the surrounding words or syllables. (p.560)

Pennington (1996) states that stress gives one syllable “an impression of perceptual prominence” and the prominence is “**duration**, or length; **intensity**, or loudness; and **pitch**, or fundamental frequency” (p.129). As defined above, an English stressed syllable has features that are louder, higher in pitch and longer than other syllables.

On the other hand, Japanese stress is prominent in heights in pitch. For example, when Japanese words which have the same phoneme structure are differentiated in utterance, they are pronounced as follows:

$\overline{\text{amé}}$ (rain)	$\underline{\text{amé}}$ (candy)
$\overline{\text{hashi}}$ (chopstick)	$\underline{\text{hashi}}$ (bridge)

Due to the L1 transfer of the stress pattern, Japanese learners tend to forget to pay attention to length and loudness and, as a result, pronounce English words rather flatly.

Sentence Stress and Rhythm

The weak-strong stress pattern characterizes utterances in English. Celce-Murcia et al. (1996) show the same stress patterns in words and utterances respectively (p.152).

 mother Do it Pay them	 attend You did? It hurts.
 abandon I saw you. We found it	 guarantee Have some cake. Where's the beef?

Kubozono (1998) states that syllables contribute to characteristics of stress structure in the weak-strong rhythm of English utterances. In other words, the rhythm of the English language is characterized by stress where syllable functions as a unit (p.50). On this point,

the above stated suprasegmentals, that is syllable and word stress, are related to English rhythm.

English is said to have so called “stress-timed” rhythm. In stress-timed languages, stressed syllables occur at regular intervals. Thus, the amount of time one takes to say a sentence depends on the number of stressed syllables. On the other hand, languages like Japanese are called “syllable-timed” languages. With these kinds of languages, the amount of time one takes to say a sentence depends on the number of syllables. Avery and Ehrlich (1992) show the difference as seen in Figure 5.7 and Figure 5.8.

Figure 5.7

The Rhythm of a Syllable-timed Language (Avery and Ehrlich, 1992, p.73)



Figure 5.8

The Rhythm of a Stress-timed Language (Avery and Ehrlich, 1992, p.73)



The stress-timed nature of English is often illustrated by the sentences seen in Figure 5.9 below as provided by Avery and Ehrlich (p.74).

Figure 5.9

The Stress-timed Nature of English (Avery and Ehrlich, 1992, p.74)

B i r d s	e a t	w o r m s.
The b i r d s	e a t	w o r m s.
The b i r d s	e a t	the W o r m s.
The b i r d s	will e a t	the W o r m s.
The b i r d s	will have e a t e n	the W o r m s.

The sentence at the top contains three syllables, and the one at bottom has eight syllables. Although the sentences become longer in terms of the number of syllables, it takes approximately the same amount of time to say the sentences with three syllables (words) stressed. However, learners of syllable-timed languages as their L1 tend to “assign equal weight to each syllable in English sentences, regardless of whether a syllable is stressed or unstressed. This may give their speech a staccato-like rhythm that can adversely affect the comprehensibility of their English” (Avery & Ehrlich, 1992, p.74).

As stated in this section, the suprasegmental characteristics of Japanese learners’ English tend to be as follows:

1. vowel insertion,
2. increased number of syllables
3. rather vague and flat stress on words and sentences in general.

These characteristics seem to lead to a failure to utter sentences with a stress-timed rhythm. Regarding 1 and 2, Walker (2010) states that Japanese learners’ tendency to “give equal length to every syllable without reducing vowels in English unstressed syllables” alone may not threaten intelligibility very seriously but “when it is combined with the addition of extra vowels”(p.114), the utterances become far longer than the original, which makes them very hard to understand, even in EIL contexts.

5.3.2.2 Segmental Features

Compared to Japanese, English segmentals are more complicated with wider varieties. Figure 5.10 shows the vowels of English and Japanese. Japanese vowels are represented in Kana.

Figure 5.10

Japanese and English Vowels (Imai, 1980, p.23)

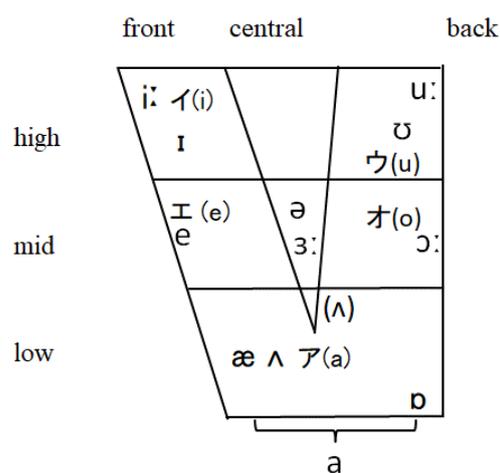


Table 5.2 and Table 5.3 show the consonant systems of English and Japanese respectively.

Table 5.2

Consonant Phonemes of English (Celce-Murcia, Brinton, & Goodwin, 1996, p.47)

	Place of Articulation						
	Bilabial	Labiodentals	Dental	Alveolar	palatal	Velar	Glottal
Stop							
voiceless	/p/			/t/		/k/	
voiced	/b/			/d/		/g/	
Fricative							
voiceless		/f/	/θ/	/s/	/ʃ/		/h/
voiced		/v/	/ð/	/z/	/ʒ/		
Affricate							
voiceless					/tʃ/		
voiced					/dʒ/		
Nasal							
voiced	/m/			/n/		/ŋ/	
Liquid							
voiced				/l/ (/r/)	/r/	[ɾ]	
Glide							
voiceless	/hw/						
voiced	/w/				/y/		

Table 5.3

Consonant Phonemes of Japanese (Adopted from Table 4 in Kubozono, 1998, p.42)

Manner of Articulation	Place of Articulation				
	Bilabial	Dental Alveolar	Palatal Alveolar	Velar	Glottal
Stop					
voiceless	p	t		k	
voiced	b	d		g	
Fricative					h
voiceless		s			
voiced		z			
Nasal	m	n			
flap		r			
glide	w		j	(w)	

According to Jenkins (2000), most of the world's languages have approximately twice as many consonants as vowels. On the contrary English has up to 20 vowel sounds with 24 consonants. Japanese has five vowels and 14 consonants. Kubozono (1998), however, states that the number of vowels is ten, when long vowels are included. The number increases even more when diphthong natured vowels found in borrowed words, such as [ai] in 'sutoraiku' (strike), are included. According to Kubozono, there are generally thought to be only five Japanese vowels since Japanese is a syllable-timed language and both long vowels and diphthongs are analyzed as a series of two vowels, that are two syllables. Thus 'sutoraiku' is divided into 'su-to-ra-i-ku' and [ai] is not regarded as one independent vowel phoneme. Based on this difference, consequently, Japanese learners tend to pronounce English long vowels and diphthongs in a much longer way, usually twice as long as their counterparts.

Similarly, Japanese has fewer consonants than English. In particular, English has remarkably more fricatives with dominantly localizing rather small area in labiodental (/f/, /v/), dental (/θ/, /ð/), and alveolar (/s/, /z/) (Kubozono, 1998, p.43). On the other hand, Japanese has rather fewer consonants, but when allophones are included, the number increases. Consonant sounds change particularly in front of /i/ and /u/. For example, /s/ in 'sake' is very similar to the English /s/, but it is realized as [ʃ] when it precedes /i/,

thus “sip” pronounced by a Japanese learner often sounds as “ship” (Walker, 2010). Walker describes the problematic areas of consonants for Japanese learners of English which are potential threats to intelligibility as follows:

- the lack of distinction between /l/ and /r/
- palatalization of consonants before /i/” with its effect especially notable with /s/, /z/, /t/, /d/, /n/, /h/
- The weakness of aspiration of /p/, /t/, /k/ (p.114)

Table 5.4
Problems of Segmental Features Found in Japanese Learners

Consonants		
features	traits	examples
/s/ vs. /ʃ/ /t/ vs. /tʃ/	When /s/ and /t/ occur before the high front vowels /i/ or /iy/, Japanese speakers may pronounce them as /ʃ/ and /tʃ/ respectively.	'sip' sounds like 'ship' 'tip' sounds like 'chip'
/b/ vs./v/	While Japanese has a /b/ sound, it has no /v/ and Japanes learners often substitute /b/ for /v/	'very' sounds like 'berry'
/l/ vs. /r/	Japanese has only one liquid sound which is between the English /r/ and /l/.	'light' may sound 'right' or vice versa
word-initial /w/ and /y/	Japanese speakers may omit word-initial glides before their high vowel counterparts.	'year' is pronounced as /ir/ 'would' as /ʊd/
consonant clusters	Japanese has no consonant clusters in intial or final position. Japanese learners will generally break up consonant clusters through the insertion of a vowel.	'sky' is pronounced as 'suky'
word-final consonants	The only consonant permitted in word-final position is a nasal sound similar to (but not identical with) English /ŋ/as in 'sing'. Japanese learners will often insert a vowel after a word-final consonant.	'match' is pronounced as 'matchi'
vowels		
tense vs.lax vowels: /iy/ vs. /i/, /ey/ vs /ε/, /uw/	The distinction between tense and lax vowels does not exist in Japanese.	'beat' may sound 'bit' or vise versa.
/ε/ vs. /æ/ vs. /ʌ/ vs. /a/	Japanese speakers may have difficulty with all four of these vowel sounds, the /æ/and /ʌ/ sounds being particularly problematic.	'pan' [pæn] may sound 'pen'[pɛn]

Table 5.4 shows the problematic areas of both vowels and consonants found in Japanese learners' utterances presented by Avery and Ehrlich (1992). For each difficulty, they also highlight suggestions for improvement. For example, they recommend showing Japanese learners the distinction between /l/ and /r/ by pointing out whether the tongue is touching the tooth ridge or not at first, and then give learners practice in making the distinction using minimal pairs such as these below:

/l/	/r/
long	wrong
lamb	ram
lip	rip
lime	rhyme
play	pray
fly	fry
filing	firing
feeling	fearing

(p.136)

With the idea of improving Japanese learners' intelligibility in mind, it is crucial to focus on the difficulties peculiar to these learners in order to make the most of class time. Thus, the lists presented by the researchers, such as Avery and Ehrlich (1992), and Walker (2010) will benefit both teachers who teach English to Japanese learners and Japanese learners by narrowing down the workload of acquiring a thorough inventory of English segmentals.

5.4 Summary and Unsolved Issues

This chapter has looked at the theoretical framework of intelligibility, proposed factors determining intelligibility and Japanese learners' intelligibility. Although there is, as yet, no definite agreement on the definition of intelligibility among researchers, it is certain that intelligibility is a fundamental requirement for establishing oral communication. In this increasingly globalized era, it is crucial to be able to speak English with intelligible pronunciation to audiences of both NSs and NNSs listeners, which can be defined as "global intelligibility".

In order to improve learners' intelligibility, many researchers have studied the factors determining intelligibility. Most of the studies have focused on intelligibility from the perspective of the NS, but some studies have been conducted from the NNS's point of view. Research findings have generally shown that for NSs listeners, suprasegmentals, such as intonation and word stress, are more important than segmentals for learners' phonological intelligibility. On the other hand, in oral communication between NNSs, sound accuracy in segmentals are more important.

As discussed, there is rather little research on Japanese learners' intelligibility, but some research has been conducted from both NS and NNSs perspectives. The findings vary, although there is some agreement that for NNSs' interlocutors, segmentals are more important.

It is still not certain if there are any kind of "core" features for Japanese learners' global intelligibility, which is crucial when engaging in communication with both NSs and NNSs. As stated in the previous section, Moedjito (2009) reports that sound accuracy, word stress and sentence stress contribute to global intelligibility. Also, Kashiwagi and Snider (2013) show that the Japanese university students' intelligibility scores were rather low in segmentals by NNSs raters. However, up to this point in time, there has been very little research undertaken attempting to identify Japanese learners' intelligibility. It is therefore apparent that further research in this area is necessary.

It is clear that Jenkins (2000) proposes the *lingua franca core* in the hope that it will reduce both teachers' and learners' workloads. However, from this author's point of view, as a teacher of English at a university in Japan and as a SL learner of English, it is uncertain as to whether even the "core" is taught and learned enough at every scholastic level in Japan. Thus, it is also essential to understand the actual situation of English pronunciation instruction, and attitudes towards pronunciation in order to have a better understanding of research and instructional direction. The next chapter will examine Japanese learners' knowledge, experience in receiving pronunciation instruction and attitudes towards pronunciation.

Part3
Research

Chapter 6

Research 1: Research on Japanese University Students' Knowledge, Learning Experience and Attitude Towards English Pronunciation

6.1 Introduction

As discussed in the previous chapters, the advent of Communicative Language Teaching (CLT), which has been a dominant method in second language teaching since the 1980s, encouraged English teachers to regard the intelligible pronunciation as one of the essential components of communicative competence (Morley, 1991). However, at the same time, the focus has shifted from drills and exercises on pronunciation to “communicative activities based on meaningful interaction which, if successful, directs learners’ attention away from language form and towards the message they want to communicate” (Nunan & Carter, 2001, p.57). Recently, this trend has also been pervasive in English education in Japan (Saito, 2007), and the educational focus has seemed to be placed on the function and content of the language, not on its form, such as pronunciation.

Meanwhile English has become an international language, and the ability to output content in English has become regarded as one of the most important elements. As a result, communicative competence, specifically oral communication competence, has come to be considered crucial. Under these circumstances, fostering oral out-put competence has been urged. This trend can be seen in changes in the English classroom at schools in every level through an increase in communicative activities, task activities, and the active learning teaching style utilizing an increasing amount of pair or group work activities. The outcomes are visible in that there seem to be more and more students who do not hesitate to use verbal output and are willing to communicate in English.

However, while general learners have an increasingly positive and active attitude towards verbal output in English, many learners including university students seem to have difficulty with pronunciation in English and do not seem to pay attention to their

pronunciation nor try to improve them. When teaching pronunciation, the author sometimes asks students what kind of pronunciation instruction they have previously received, and many answers that they have not learned or studied it. From these situations, it seems that a meaning-oriented approach, such as CLT, focusing on the transaction of information, is accompanied by less attention to the students' concentration of accurate pronunciation.

When oral output competence is of importance, the pronunciation should be stressed as much as fostering positive attitudes to oral output. In this global era, students should be encouraged to speak intelligible English.

In an attempt to establish an effective pronunciation instruction method and improve my students' pronunciation, I came to think that it is essential to understand the current situation of my students' English pronunciation studies, in particular their learning experience and attitude towards English pronunciation. This led me to conduct this research.

This author has three purposes of this research in the hope of enhancing deeper understanding in desirable English pronunciation instruction in Japan. The first is to investigate how much instruction in pronunciation Japanese university students have had at junior/senior high school and how much knowledge they have as a result of their experience. The second is to reveal the Japanese students' attitude towards English pronunciation. The third is to examine whether there is a relation between the learning experiences, knowledge and attitude towards English pronunciation.

6.2 Method

6.2.1 Participants

The participants of this research were 92 Japanese students at a private university in Kyoto, from freshmen to seniors, 61 males and 31 females, who took my compulsory (TOEIC) and elective (English conversation) classes. Regarding the age at which the participants started learning English, seven started before entering elementary school, ten started at the age of seven or eight, 25 started at the age of nine and ten, and 50 started at the age of 11 or 12 when they started to take lessons of "a foreign language activity"

at elementary school. In response to the question whether they like studying English pronunciation, nine students answered “very much,” 38 students answered “yes,” 41 students answered “not very much,” four students answered “no.” That is, 47 students out of 92, or 51 % of the participants like studying English pronunciation. This figure is slightly higher than that of those who do not like pronunciation studying. As for their English ability levels, looking at their TOEIC test scores, the students’ levels were as follows:

- Less than 300; 14%,
- From 300 to 449; 56%,
- From 450 to 599; 28 %,
- From 600 to 749; 1%.

6.2.2 Questionnaire

A questionnaire in Japanese, asking the students’ knowledge, learning experience and attitude towards English pronunciation was given to the students. The questionnaire was made up of the following four parts; First: five multiple choice questions concerning the participants. Second: 12 multiple choice and seven descriptive questions regarding the participants’ knowledge of English pronunciation. Third: 10 four-point Likert-scale questions regarding the students’ learning experience of pronunciation. Fourth: 17 four-point Likert-scale and three descriptive questions regarding the students’ current situation of studying pronunciation and their attitude towards it. The students were informed that the research was anonymous, and it is of no relation to their grade, and consent forms were collected. The research was conducted from January 10th to 23rd in 2017.

6.2.3 Data Analysis

The results of the questionnaire collected from each participant were digitized into an EXCEL format and analyzed. Regarding the third purpose of this research, the relation between the learning experiences, knowledge and attitude towards English

pronunciation was analyzed to find inter-group differences by using SPSS 24.0.

6.3 Results

This section first reports some general findings about the students' knowledge of English pronunciation. Secondly, the students' learning experience of English pronunciation at junior/senior high school is explained. Thirdly, the students' attitude towards English pronunciation and the actual condition of their practicing English pronunciation are reported. Finally, it is analyzed whether the students' learning experiences, knowledge of English pronunciation and attitude toward it relate to each other.

6.3.1 Students' Knowledge of Pronunciation

Table 6.1 shows the students' knowledge of each phoneme of words. The questions were drawn from the Center Test of 2016 issued by the National Center for University Entrance Examination. The participants were required to circle the word whose underlined sound is different from the other three for the six sets of words. In other words, the students were asked to identify the difference in pronunciation among the underlined parts.

Table 6.1
Students' Knowledge of Phonemes

No.	Item	<i>N</i>	Item	<i>N</i>	Item	<i>N</i>	Item	<i>N</i>	CA (%)
1)	g <u>l</u> ove	2	o <u>n</u> ion	25	o <u>v</u> en	8	pr<u>o</u>ve	57	61.96
2)	ca <u>s</u> ual	19	cl <u>a</u> ssic	8	ha <u>b</u> it	30	la<u>b</u>el	35	38.04
3)	ea <u>s</u> e	41	loo<u>s</u>e	19	pa <u>s</u> e	10	prai <u>s</u> e	22	20.65
4)	ci <u>n</u> ema	9	li <u>t</u> ter	12	mi<u>n</u>or	62	ri <u>t</u> ual	9	67.39
5)	co <u>m</u> b	33	g <u>o</u>	24	l<u>o</u>t	13	<u>o</u> nly	22	14.13
6)	altho <u>u</u> gh	19	si <u>g</u> h	43	to<u>u</u>gh	22	wei <u>g</u> h	8	23.91
								<i>M</i>	37.68

Notes. *N*=92. Words in bold are the correct answers.

CA represents the percentage of correct answers for each question.

As Table 6.1 indicates, the average percentage of the correct answers is 37.68%, which

indicates that the participants had difficulty in identifying differences in vowels and consonants.

Table 6.2 shows the students' knowledge of word stress. The questions were also drawn from the National Center Test of 2016. The participants were instructed to circle the word whose accent location is different from the other words for the six sets of words.

Table 6.2
Students' Knowledge of Word Stress

No.	Item	<i>N</i>	Item	<i>N</i>	Item	<i>N</i>	Item	<i>N</i>	CA (%)	
1)	novel	6	parade	63	rescue	10	vital	12	69.23	
2)	audience	23	funeral	8	origin	13	survival	47	51.65	
3)	atmosphere	44	domestic	10	equipment	22	reluctant	15	48.35	
4)	declare	48	ethnic	21	logic	5	method	17	52.17	
5)	appointment	22	delicate	24	organic	33	suspicious	12	26.37	
6)	conference	7	estimate	10	proposal	66	resident	8	72.53	
									<i>M</i>	53.38

Notes. *N*=92. CA represents the percentage of the correct answers for each question.

Words in bold are the correct answers.

Compared to the questions identifying each phoneme, shown in Table 6.1, the average of the correct answer is higher, at 53.38%. However, almost half of the students had difficulty in putting correct stress on words.

Table 6.3 shows whether the students were able to identify the phonetic alphabet.

Table 6.3
Students' Knowledge of Phonetic Alphabet

No.	Item	Word	CA (<i>N</i>)	(%)	
1)	/ stéifən /	station	18	19.57	
2)	/ impɔ':r tə nt /	important	74	80.43	
3)	/ təgéðər /	together	37	40.22	
4)	/ dífikəlt /	difficult	69	75.00	
5)	/ θáuznd /	thousand	19	20.65	
6)	/ kənrəbjú:fən /	contributor	14	15.22	
				<i>M</i>	41.85

Note. *N*=92. CA represents the number of the correct answers for each question.

The students were given six words written in the phonetic alphabet and asked to write them in the alphabet. Looking at Table 6.3, although words such as “important” and “difficult,” were answered correctly at a high rate, the average percentage of correct answers was 41.85%. Many of the students were unable to read them. It can be said that students generally do not have sufficient knowledge of the phonetic alphabet.

Table 6.4 below shows the results of the students’ response to the question, “Explain briefly how to pronounce /f/ sound, such as in “funny.”

Table 6.4

The Students' Ability to Explain how to Pronounce a Phoneme /f/

Item	CA(n)	CA(%)
the place of articulation	19	20.65
the manner of articulation	8	8.70
both	8	8.70

Note . N=92. CA represents correct answers.

The phoneme /f/ is a labio-dental fricative. The sound is produced with the upper teeth and inner lower lip (the place of articulation) and it is maintained as long as there is air in the lungs (the manner of articulation). The answers which included the correct place of articulation and the manner of articulation were regarded as the right answers. According to the students’ answers, only 8.70 % of the students were able to explain both the place and the manner of articulation correctly. One example of a correct answer is “There is contact between the upper teeth and lower lip and while exhaling strongly.” Regarding the manner of articulation, only 8.70 % of the students answered correctly. Those students also included the place of articulation correctly.

6.3.2 Students’ Learning Experience of English Pronunciation

Table 6.5 indicates the students’ experiences of learning English pronunciation at junior/senior high school. The students were given five questions seen in Table 6.5 regarding their learning experience of English pronunciation.

The first two questions were whether students had studied the phonetic alphabet and phonics. In regard to the phonetic alphabet, approximately 68% of the students

answered they had not studied it. This corresponds to the result of the students' knowledge of the phonetic alphabet seen in Table 6.3.

Table 6.5
Students' Learning Experience of English Pronunciation

	4	3	2	1	<i>M</i>
	<i>N</i>	<i>N</i>	<i>N</i>	<i>N</i>	(points)
	(%)	(%)	(%)	(%)	
1. Have you ever studied the phonetic alphabet?	5	24	43	20	2.20
	(5.43)	(26.09)	(46.74)	(21.74)	
2. Have you ever studied phonics?	2	3	10	77	1.30
	(2.17)	(3.26)	(10.87)	(83.70)	
3. Have you ever been taught the following phonetic features during junior / senior high school?					
(1) pronunciation of each phoneme	8	44	36	4	2.60
	(8.70)	(47.83)	(39.13)	(4.35)	
(2) word stress	20	50	22	0	3.00
	(21.74)	(54.35)	(23.91)	(0.00)	
(3) rhythm	10	38	38	6	2.60
	(10.87)	(41.30)	(41.30)	(6.52)	
(4) sentence intonation	14	47	29	2	2.80
	(15.22)	(51.09)	(31.52)	(2.17)	
(5) sentence stress	17	38	34	3	2.80
	(18.48)	(41.30)	(36.96)	(3.26)	
(6) breath control	1	22	49	20	2.00
	(1.09)	(23.91)	(53.26)	(21.74)	
4. Has your English pronunciation ever been corrected by an English teacher during junior /senior high school?	14	27	38	13	2.50
	(15.22)	(29.35)	(41.30)	(14.13)	
5. Have you ever used <i>Katakana</i> letters in order to memorize pronunciation of English?	29	29	23	11	2.80
	(31.52)	(31.52)	(25.00)	(11.96)	

Notes. *N*=92. The number 4-1 represent as follows: 4: certainly, yes 3: to some extent 2: seldom 1: never.

As for the second question, it was shown that more than 90% of the students have not studied phonics. This is quite different from the currently on-going trend of introducing phonics at an early age in English education.

The third question was to investigate how much learning experience the students had had on specific phonetic features of English. In the question, the students were asked whether they had studied six features at junior/senior high school. The features were pronunciation of each phoneme, word-stress, rhythm, sentence intonation, sentence

stress, and ¹⁷breath control. Then positive answers to the question, that is, three (to some extent) and four (yes) were combined in order to detect frequently-taught features. Word stress was the most-frequently-taught feature at 76.09%. The other features came in the following order; sentence intonation (66.31%), sentence stress (59.78%), pronunciation of each phoneme (56.53%), rhythm (52.17%), and breath control (25.0%). From this result, it can be said that the supra-segmental features, such as word stress and sentence stress are more frequently-taught than segmental features, such as pronunciation of each phoneme, in current pronunciation instruction at junior/senior high school.

The fourth question was to inquire whether the students' pronunciations have ever been corrected by English teachers at junior / senior high school. Surprisingly, more than half of the students do not have such experiences. The last question is whether the students have utilized *katakana* letters in order to memorize pronunciation of English words. Approximately 64% of the students answered they had used *katakana* letters before.

6.3.3 Students' Attitude Towards English Pronunciation

In order to see the students' attitude towards English pronunciation, the following questions were given.

- Q1. Do you think the knowledge of phonetic alphabet leads to correct pronunciation?
- Q2. How important do you think pronunciation is in communication in English?
- Q3. From which country's native speaker would you like to learn English pronunciation?
- Q4. Do you think that your English pronunciation is intelligible to native and non-native speakers of English?
- Q5. What features of English pronunciation do you think are important for internationally intelligible English?
- Q6. Nowadays, English has become a global language with a wide variety of

¹⁷ In the questionnaire in Japanese, "breath control is expressed as "*iki no tsukai kata*" or "how to use breath when speaking English."

accents. In these circumstances, do you think that Japanese learners still should aim at producing “native” speakers’ accent, such as American and British?

Q7. Do you agree with the opinion that Japanese learners can speak “Japanese English” free from detailed rules of English pronunciation?

Q8. When do you think Japanese people should start learning English pronunciation in order to acquire accurate pronunciation?

Q9. Rate the degree of success of English pronunciation education you had in junior/senior high school.

For Question 1, “Do you think the knowledge of phonetic alphabet leads to correct pronunciation?” the results were as follows: Strongly agree: 13.04%, Agree: 56.52%, Disagree: 25.00 %, Strongly disagree: 5.43%. This shows that almost 70 % of the students think the knowledge of phonetic alphabet is necessary to pronounce words correctly, although they in fact do not know them.

The results of Question 2 “How important do you think pronunciation is in communication in English?” were as follows: Very important: 42.39 %, Important: 50.00 %, Not very important: 7.61 %, Not at all: 0.00 %. From the result, it is obvious that the students realize the importance of pronunciation in English communication.

For Question 3 “From which country’s native speaker would you like to learn English pronunciation?” the answers were as follows: The United States and Canada: 77.17 %, England: 17.39 %, Australia, New Zealand: 4.35%, Other: 1.09%. From this result, it is shown that students have a strong preference for the North American English accent.

For Question 4 “Do you think that your English pronunciation is intelligible to native and non-native speakers of English?”, only 2.17% of the students answered “yes” to this question. 30.43 % of the students answered “often,” 39.13 % answered “not usually,” and 28.26 % answered “seldom.” More than 65 % of the students think that their English pronunciation is unintelligible.

The result of Question 5 “What features of English pronunciation do you think are important for internationally intelligible English?” is seen in Table 6.6. Positive replies

to the question, that is, three (important) and four (very important), were combined in order to detect which feature is regarded important by the students. As a result, the students chose sentence intonation (97.83%) as the most important feature. Other features, that is, rhythm (93.48%), word stress (89.3%), sentence stress (89.13%), pronunciation of each phoneme (86.95%), breath control (70.15%) were regarded important at a high rate as well.

Table 6.6

The Phonetic Features Regarded Important by the Students

Item	4	3	2	1	M (points)
	N (%)	N (%)	N (%)	N (%)	
(1) pronunciation of each phoneme	19 (20.65)	61 (66.30)	12 (13.04)	0 (0.00)	3.10
(2) word stress	26 (28.26)	58 (63.04)	8 (8.70)	0 (0.00)	3.20
(3) rhythm	30 (32.61)	56 (60.87)	6 (6.52)	0 (0.00)	3.30
(4) sentence intonation	33 (35.87)	57 (61.96)	2 (2.17)	0 (0.00)	3.30
(5) sentence stress	30 (32.61)	52 (56.52)	10 (10.87)	0 (0.00)	3.20
(6) breath control	13 (14.13)	52 (56.52)	27 (29.35)	0 (0.00)	2.80

Notes . N=92. The numbers 4-1 represent as follows: 4: very important 3: important 2: not very important 1: not at all

As for the Question 6 “Nowadays, English has become a global language with a wide variety. In these circumstances, do you think that Japanese learners still should aim at producing “native” speakers’ accent, such as American and British?” the students’ answers were as follows: Strongly agree: 22.83 %, Agree: 57.61%, Disagree: 18.48 %, Strongly disagree: 1.09 %. Approximately 80% of the students think Japanese learners still should aim at producing “native” speakers’ pronunciation. The students were asked to write the reasons for their answers. The below are some of their comments:

Reasons to agree

- American and British accents are universally accepted.
- These accents are standard and seem to be used in international conferences.
- It is the safest way to pronounce in order to be understood by anybody.
- If there are more varieties of English, English as a global language might not be understood by everybody.
- When you have mastered native speaker-like pronunciation which is standard universally, you can deal with other varieties of English.

Reasons to disagree

- You can show your identity with a Japanese accent as long as it is intelligible.
- Since there are a wide variety of English pronunciations like Indian English, Japanese English should be accepted internationally as well.
- I have been able to make myself understood in English although my pronunciation was not good.

From the comments, it can be summarized that those who agree with the question claimed that American and British accents are standard and internationally used and Japanese people should aim at acquiring those “standard” accents. Those who disagree with the question asserted that as long as the accented English is intelligible, it should be accepted in this global era.

Regarding the question 7 “Do you agree with the opinion that Japanese learners can speak “Japanese English” free from detailed rules of English pronunciation?”, the results were as follows: Strongly agree: 3.26 %, Agree: 23.91 %, Disagree: 55.43 %, Strongly disagree: 17.39 %. These correspond with the result from Question 6 above. Approximately 72 % of the students think they should not speak “Japanese English.” The students’ comments explaining the reason to their answers are as follows:

Reasons to agree

- The Japanese accent enables Japanese people to show their identity.
- The native speakers of English are expected to try to understand non-native

speakers' utterances.

- No matter how hard we try, Japanese people are different from native speakers, and we should not expect to be understood perfectly.
- As long as the rough content of the utterance is understood, the details are not necessary.
- Even native speakers of English have varieties of English.

Reasons to disagree

- In communication, strong accent give the interlocutor stress.
- Japanese English is not cool, and the interlocutor is not pleased to hear it.
- Japanese English is not intelligible at all to foreign people
- It is rude to use Japanese English to native speakers and pronunciation researchers.

In Question 8, “When do you think Japanese people should start learning English pronunciation in order to acquire correct pronunciation?” the results were asked to choose a single answer from seven choices. The result were as follows: The earlier the better: 47.48 %, Before entering a kindergarten (Before the age of three) : 7.78 %, After entering a kindergarten (After the age of three) : 11.11 %, From the first or second grade: 17.78 %, From the third or fourth grade: 6.67 %, From the fifth or sixth grade: 8.89%, Any age: 0.00 %. These indicate that the students realize that it is essential starting earlier in order to acquire correct pronunciation.

Concerning the Question 9 “Rate the degree of success of English pronunciation education you had at junior /senior high school”, the results were as follows: Very successful: 1.09 %, Successful: 21.74 %, Not very successful: 64.13 %, Not successful: 13.04 %. More than 75 % of the students feel that English pronunciation education they had at junior/senior high school was not successful.

6.3.4 Relation Between Students' Knowledge, Learning Experience and Attitude Towards English Pronunciation

This section attempts to realize the third purpose of this research, which is to find whether the students' knowledge, learning experience of English pronunciation and

attitude toward it relate to each other.

To conduct the analysis, the students were grouped into the three levels according to their scores on pronunciation knowledge test reported in the previous section. In the test, the students were asked the questions regarding knowledge of phonemes, word-stress, and the phonetic alphabet. There were 18 questions all together, and a correct answer for respective question was counted as one point. The average of the students ($N=92$) was 8.33, with the highest score of 17 and the lowest of three. The “High” group was those who got a score of 12 or more out of 20 questions. The “Middle” group was those who got a score of seven to 11. The “Low” group was those who got a score of zero to six.

6.3.4.1 Relation Between Learning Experience and Knowledge of Pronunciation

Firstly, in order to examine a relation between learning experience and knowledge, the answers to the four questions, also seen in Table 6.5 in the previous sections, are summarized on the basis of these three pronunciation knowledge levels. The students were asked to indicate how much learning experience of pronunciation they had had before, through a four-point Likert scale. The scale presented to the students is composed of 4 (yes, certainly), 3 (to some extent), 2 (seldom) and 1 (never). The Four questions are listed as follows:

Q1. Have you ever studied phonetic alphabet?

Q2. Have you ever studied phonics?

Q3. Have you ever been taught the following phonetic features at junior/senior high school?

1. Pronunciation of each phoneme

2. Word stress

3. Rhythm

4. Sentence intonation

5. Sentence stress

6. Breath control

Q4. Has your English pronunciation ever been corrected by an English teacher at junior/senior high school?

The figures in Table 6.7 indicate the number of the students for each of the respective points in the scale regarding their experience of learning phonetic alphabet. Since the midpoint value of the four-point Likert scale is 2.5 averages larger than 2.5 indicate the participants' positive responses to the question while averages smaller than 2.5 indicate their negative responses to the question. Furthermore, the degree of difference between averages and 2.5 indicates the degree of either positiveness or negativeness respectively.

Table 6.7

Q1: Have You Ever Studied Phonetic Alphabet?

	Experience				<i>M</i>
	4 Certainly, Yes	3 To some extent	2 Seldom	1 Never	
High (<i>N</i> =12)	1	6	4	1	3.17
Middle (<i>N</i> =52)	2	11	24	15	2.00
Low (<i>N</i> =28)	2	7	15	4	2.25

Only the point-average of "High" group was above a midpoint value (=2.5) and both of "Middle" and "Low" groups' point-average were below a midpoint value. When looking at the positive answers, the total of four (certainly, yes) and three (to some extent) combined, seven out of 12 students (58%) in the "High" group answered they had learned the phonetic alphabet. Conversely only 9 out of 28 (32%) in the "Low" group had learned the phonetic alphabet. In the previous section, it was reported the average of all the students were 2.20. The "High" group's average is rather high, indicating their positive response to the question, that is, they are more experienced in learning the phonetic alphabet. It can be referred that their experience of learning the phonetic alphabet led to good knowledge of pronunciation.

In Question 2, "Have you ever studied phonics?", unlike Question 1, the average points of the each group were all rather low, with the points of 1.58 of the "High", 1.15

for the “Middle” and 1.25 for the “Low” group. It was shown that the students did not have experience of learning phonics regardless of their knowledge level.

Table 6.8 is the list of average attained from the Question 3, “Have you ever been taught the following phonetic features at junior/ senior high school?”

Table 6.8

Q3: Have You Ever Been Taught the Following Phonetic Features at Junior/Senior High School?

	1 pronunciation of each phoneme	2 word stres	3 rhythm	4 sentence intonation	5 sentence stress	6 breath control
Knowledge	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>	<i>M</i>
High (<i>N</i> =12)	2.83	3.25	2.92	3.08	3.25	2.25
Middle (<i>N</i> =52)	2.56	2.98	2.50	2.71	2.63	2.04
Low (<i>N</i> =28)	2.61	2.86	2.54	2.79	2.75	1.96

In all the items except (6) (breath control), the average points were above the midpoint value in all knowledge levels. It can be said that the students, regardless of their pronunciation knowledge level, had learned the features. However, the averages in all the features of the “High group were highest.

The figures in Table 6.9 indicate the number of the students who chose the respective points in the scale regarding Question4, “Has your English pronunciation ever been corrected by an English teacher at junior/senior high school?” in the “High,” “Middle,” and “Low” group.

Table 6.9

Q4: Has Your English Pronunciation Ever Been Corrected by an English Teacher at Junior/Senior High School?

	Experience				<i>M</i>
	4 Certainly, Yes	3 To some extent	2 Seldom	1 Never	
Knowledge					
High (<i>N</i> =12)	2	5	5	0	2.75
Middle (<i>N</i> =52)	8	17	19	8	2.48
Low (<i>N</i> =28)	4	5	14	5	2.29

Only the “High” group’s average is higher than the midpoint value. (=2.5). When looking at the positive answers, the total of four (certainly, yes) and three (to some extent) combined, seven out of 12 students (58%) in the “High” group answered they had had the experience. Conversely only nine out of 28 (32%) in the “Low” group had not. There is a possibility that these experiences of having their pronunciation corrected led to a good knowledge of pronunciation.

Finally, in order to see the group differences on the total learning experience scores, a one-way ANOVA having three levels (High, Middle, Low) was performed. The result did not detect significant differences between groups ($F(2,89) = 2.460, p = .091, p > .05$). However, it presented approximately medium sized effect $\eta^2 = .05$. The result does not indicate that the reported learning experience directly leads to the students’ knowledge of pronunciation.

6.3.4.2 Relation Between Attitude Towards English and Knowledge of Pronunciation

Secondly, in order to detect inter-group differences in attitude towards English pronunciation in terms of the students’ knowledge of pronunciation, the answers to the question below were analyzed:

- Q1. Do you think knowledge of the phonetic alphabet leads to correct pronunciation?
- Q2. How important do you think pronunciation is in communication in English?
- Q3. Do you think that your English pronunciation is intelligible to native and non-native speakers of English?

In Question 1, “Do you think knowledge of the phonetic alphabet leads to correct pronunciation?”, the students were asked to indicate the degree of agreement to the question through a four-point Likert scale. The scale presented to the students was composed of 4 (strongly agree), 3 (agree), 2 (disagree) and 1 (strongly disagree). As seen in the Table 6.10, the average point of the “High” group was 3.17, “Middle” was 2.73 and “Low” was 2.68. It turned out that all the groups’ average points were above the

midpoint value and “High” group’s average points was particularly higher than other two groups.

Table 6.10

Q1: Do You Think Knowledge of the Phonetic Alphabet Leads to Correct Pronunciation?

	Attitude				<i>M</i>
	4 strongly agree	3 agree	2 disagree	1 strongly disagree	
High (<i>N</i> =12)	3	8	1	0	3.17
Middle (<i>N</i> =52)	5	30	15	2	2.73
Low (<i>N</i> =28)	4	14	7	3	2.68

When looking at the positive answers, the total of four (strongly agree) and three (agree) combined, 11 out of 12 students (92%) in the “High” group answered they agreed to the question. This indicates that the students with good knowledge of pronunciation were more aware of the importance of phonetic alphabet.

In Question 2, “How important do you think pronunciation is in communication in English?”, the scales were composed of 4 (very important), 3 (important), 2 (not very important), 1 (not at all). All the groups average points were not very different with the “High” group, 3.42, “Middle” group, 3.33, “Low” group, 3.36. It can be said that the students were aware of important role of pronunciation regardless of their level.

In Question 3, “Do you think that your English pronunciation is intelligible to native and non-native speakers of English?” the students indicated the number of the scale from 4 (yes), 3 (often), 2 (not usually), and 1 (seldom). As seen in the Table 6.11, only the “High” group’s average point was above the midpoint value. The positive answers, the total of four (yes) and three (often) combined, seven out of 12 students (58%) in the “High” group thought their English pronunciation is intelligible. On the other hand, only six out of 28 students (21%) in the “Low” group thought their English pronunciation is intelligible.

Table 6.11

Q3: Do You Think That Your English Pronunciation is Intelligible to Native and Non-native Speakers of English?

	Attitude				<i>M</i>
	4 yes	3 often	2 not usually	1 seldom	
High (<i>N</i> =12)	1	6	4	1	2.58
Middle (<i>N</i> =52)	1	16	22	13	2.10
Low (<i>N</i> =28)	0	6	10	12	1.79

Also, regarding Question 3, the students were divided into two groups. Those who chose four (yes) and 3 (often) were categorized as the “Confident” in pronunciation group, and those who chose two (not usually) and one (seldom) were categorized as the “Unconfident” group. In order to detect the two-group-difference of the average in pronunciation knowledge scores, *t* test was performed. As stated in the section 6.3.4, there were 18 questions on pronunciation knowledge, and a correct answer for each question was counted as one point, thus a full score for knowledge was 18. On average, the “Confident” group’s scores were significantly greater ($M=9.07$, $SD=3.216$) than the “Unconfident” group ($M=7.31$, $SD=2.621$, $t(90)=2.800$, $p=.006$ ($p < .01$)). It also did present approximately medium sized effect $r=.28$. The result implies that the students who were confident in their pronunciation had more pronunciation knowledge than those who were not confident.

From the analyses of these questions, it was shown that although all the students were well aware of the importance of the pronunciation, it can be summarized that students who had good knowledge of pronunciation were particularly aware of importance of phonetic alphabet. Furthermore, the students with good knowledge of pronunciation also were more confident in their pronunciation. It can be inferred that students who have strong attitude towards the pronunciation have good knowledge of pronunciation, or vice versa.

6.4 Discussion

Though this research is limited, particularly in its method to capture students’

knowledge of pronunciation, the results attained in this research have brought mainly three points. The first is that Japanese university students generally do not have sufficient learning experience of English pronunciation at junior/senior high school. As a result, their knowledge of English pronunciation is rather limited. The second is that students are aware of the importance of English pronunciation, notwithstanding the fact most of them are not confident in pronunciation. University students also have a traditional view of learning English pronunciation, aiming at native speaker-like pronunciation, and consider the American and British English as a norm. The third is that their learning experience, knowledge and attitude towards English pronunciation are related to each other in some respects, particularly in relation between students' attitude toward pronunciation and learning experiences at junior/senior high school.

In regard to Japanese university students' pronunciation proficiency in English, Otsuka and Ueda (2011) examined Japanese university students' achievements of pronunciation based on items taught at junior/senior high school by giving the students a test on phonetic items containing the phonetic alphabet, word-stress, intonation and pause, or word groups. Their study showed that approximately more than 60 % of the students answered correctly for word-stress, intonation and pause while less than 20 % of the students answered correctly for the phonetic alphabet. The results suggest that university students have achieved a certain level of pronunciation in terms of supra-segmental features. Kashiwagi and Snider (2013) investigated Japanese university students' pronunciation in terms of intelligibility by having native speakers and non-native speakers of English check the Japanese university students reading aloud short sentences. It was indicated that the pronunciation of many Japanese university students was problematic, particularly in segmental features, and their pronunciation was generally rather unintelligible, when the judges were non-native speakers.

Regarding students' attitude towards English pronunciation, the importance of pronunciation in communication is well-recognized by Japanese university students. It also turned out that many students have a tendency to aim at native-like pronunciation. This kind of attitude has generally been seen in so-called Expanding Circle countries, as pointed out by McKay (2002). For example, Dalton-Puffer et al. (1997) investigated

Austrian university students' attitude toward native and non-native speakers' English pronunciation. In general, preference for native speakers' accent over a non-native speakers' was demonstrated. Also, Timmis (2002) conducted research examining learners' attitude towards native-speaker norms and international English by analyzing 400 responses to a questionnaire, from 14 different countries. The respondents included both teachers and learners. The results of their responses regarding pronunciation showed that learners prefer achieving native-speaker-like accent to intelligible L2 accented English, more than teachers do.

However, as pointed out by Szpyra (2015), pronunciation is “the most problematic area, particularly when native-like speech is seen as the goal of teaching and learning” (p.5). Globally speaking, such a pedagogical goal has come to be regarded as non-feasible and not practical. For instance, Pandey (1994) describes the phonology of what he terms General Indian English (GIE) which was to replace British Received Pronunciation (BRP) in hope of establishing a viable model of English pronunciation. He hoped that GIE is acceptable from both the pedagogic and the communicative point of view. According to Pandey, BRP has slowly declined as a socially acceptable spoken variety since BRP is “too ideal a model for Indian learners of English to acquire” (p.11). These studies show the importance of setting a realistic goal for pronunciation learning /teaching for Japanese learners

As for the relation between students' learning experience, knowledge and attitude towards English pronunciation, as shown in the previous section, students who have strong attitude towards English pronunciation tend to have more learning experiences at junior/senior high school. Toyama (2015) also investigated factors affecting Japanese university students' pronunciation skills. She first categorized four factors, “emphasis on memorizing pronunciation rules, self-efficacy, a wish to communicate and practice, and optimism about pronunciation learning” (p.107), based on questionnaire answers from university students. Then the students' pronunciation skills were graded by recording them reading dialogues aloud. As a result, it was indicated “a wish to communicate and practice” had a positive correlation with pronunciation skills. Further studies which enhance our understanding of L2 learners' attitude towards pronunciation learning are

necessary.

6.5 Summary

The analysis of the Japanese university students' circumstances regarding English pronunciation suggests that more raising awareness and emphasis on English pronunciation instruction are necessary both in English classroom and pedagogy. In order to put more focus on pronunciation instruction, further work needs to be done to investigate features affecting students' pronunciation including their learning experience, knowledge or skills of English pronunciation and attitude toward pronunciation, taking into the account of current global circumstances. Also, from a wider perspective of educational system, from elementary school to university, university English teachers should be encouraged to have deeper understanding of students' experience of learning English pronunciation in order to give students optimal pronunciation instruction.

Chapter 7

Research 2: A Study on Pronunciation Factors Affecting Japanese Learners' Global Intelligibility

7.1 Introduction

In the recent history of second/ foreign language teaching, pronunciation was highly prioritized in teaching as discussed in Chapter 2. It was emphasized and taught explicitly from the start of teaching in the 1950s and 1960s, when Audio-Lingualism was pervasive. However, with the advent of CLT (Communicative Language Teaching), which has been the dominant method in second language teaching since the 1980s, form of language, such as pronunciation became to receive less attention than content, or transaction of information. As a result, interest in teaching pronunciation waned, according to Thomson (2013). Additionally, Brinton (2017) points out that this decrease in emphasis in classroom teaching was accompanied by a similar decrease in pronunciation training for prospective teachers. Accordingly, “combined, these two trends led to a generation of teachers who had little or no idea how to address the skill of pronunciation and to a generation of foreign/second language learners who were deprived of emphasis on this skill” (Brinton, 2017, p.257). However, the importance of form of language in teaching has become to be re-realized based on the fact that the meaning-oriented approach is accompanied by less attention to the ESL learners' concentration of accurate use of the language, and interest among teachers and researchers in pronunciation has been on rise after the 2000s.

In shedding new light on pronunciation teaching, an inevitable question related to pronunciation teaching arises; what level of pronunciation should ESL/ EFL learners aim for? This question, in fact, has been discussed for a long time. When the Audio-Lingual method was dominantly used, it was encouraged to aim for native-like pronunciation, such as RP (Received Pronunciation) and GA (General American). In Japan, the educational guideline for English issued by the Ministry of Education, Culture, Sports,

Science and Technology stipulates the “modern and standard” English pronunciation is to be taught at high school. In a study of 100 adult ESL learners in Canada, Derwing (2003) reported that the vast majority regarded speaking with perfectly native pronunciation to be a desirable goal.

However, studies suggest that native-like pronunciation among those who acquire an L2 after early childhood, in fact, is exceedingly rare (e.g., Scovel, 2000). Furthermore, under the current situation of English as an international language, approximately a quarter of the world’s population has the capacity to communicate in English to a useful level as of 2000, according to Crystal (2003, p.69). Gladdol (2006) also indicates that a statistic shows that 74% of oral English communications between tourists around the world do not involve an English native speaker.

Given this current situation of English, “comfortably intelligible” pronunciation suggested by Abercrombie (1956) has now become a goal for learners in the L2 pronunciation classroom, which is the general consensus among pronunciation practitioners as pointed out by Brinton (2017).

Before discussing the intelligibility of pronunciation, clarifying how the author interprets the term “intelligibility” in pronunciation is necessary. Researchers have previously defined phonological intelligibility. Nelson (1982), for instance defined intelligibility as follows:

Being intelligible means being understood by an interlocutor at a given time in a given situation. We want to examine whether a speaker of a non-native variety of English is intelligible to a speaker of a native variety, and if not, why not. (p.59)

Munro and Derwing (1995) state that “intelligibility refers to the extent to which an utterance is actually understood” (p.291). These definitions include semantic interpretation as well as recognition of utterances. According to Jenkins (2000), there is yet to be a broad agreement on the term “intelligibility.”

Smith and Nelson (1985) clarified the term by suggesting the separate and more specific meanings as follows:

- (1) *intelligibility*: word/ utterance recognition,
- (2) *comprehensibility*: word/ utterance meaning (locutionary force),
- (3) *interpretability*: meaning behind word/ utterance (illocutionary force). (p.334)

As described above, researchers have defined the term intelligibility from various perspectives. In this paper, as described in Chapter 5, the author defines intelligibility as the extent to which a listener recognizes an utterance a speaker intends to convey, excluding semantic interpretation following the separate definition suggested by Smith and Nelson.

Many studies on intelligibility of pronunciation have been conducted in terms of native speakers' (NS) judgement of non-native speakers' (NNS) utterance. In contrast, there have still a relatively small number of studies from NNS's perspectives. There are also few studies on Japanese learners' intelligibility, although some research has focused on both NS and NNS's perspectives, such as Kashiwagi and Snider (2013)'s research.

However, as previously stated, globalization is rapidly expanding and English has become the common language of the world we live in. Given the current situation, more research focusing on NNS's perspectives is necessary. Jenkins (2000) speaks of the necessity for research on intelligibility, not for a NS receiver, but for "participants in interlanguage talk, i.e. NBESs (Non-Bilingual English Speakers)" (p.93). Additionally, Moedjito (2009) suggests "global intelligibility", that is, "intelligibility required for the interaction between NSs and NNSs as well as the interaction among NNSs" (p.79).

Based on Moedjito's "global intelligibility" theory, in this paper, the author conducts a research on Japanese learner's phonological intelligibility in terms of both NS and NNS's points of view.

7.2 Objective

As factors determining learners' intelligibility, Moedjito (2009) indicates the following nine factors; "1. sound accuracy, 2. word stress, 3. lexical accuracy, 4. grammatical accuracy, 5. adjustments in connected speech, 6. sentence stress, 7. intonation, 8. rhythm, 9. fluency" (p.87). Brinton (2017) overviews research on

intelligibility and provides six factors affecting learners' intelligibility:

1. misplacement of or missing prominence in a thought group;
2. incorrect word stress;
3. rate of speech (either too slow or too fast);
4. overabundance of / overly lengthy pauses in the stream of speech;
5. lack of clearly articulated consonants in stressed syllables or in syllable final position; and
6. lack of differentiation in pitch or vowel duration (p.259)

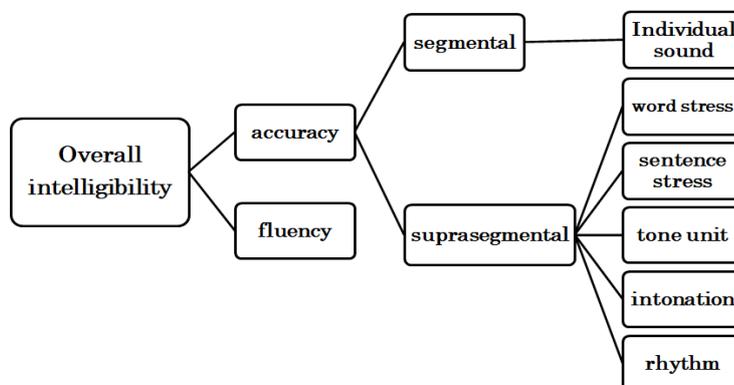
Based on the research above, in this research, the following seven factors are set as ones affecting learners' intelligibility:

1. individual sound (consonants and vowels),
2. word stress,
3. sentence stress,
4. tone unit,
5. intonation,
6. rhythm,
7. fluency

Tone unit refers to “the way in which English speakers divide their utterances into smaller meaningful units, or chunks, each containing one nuclear syllable” (Jenkins, 2000, p.155).

Figure 7.1 shows the six factors by categorizing into segmental feature and suprasegmental features, as well as accuracy and fluency respectively. In this research, fluency is not examined.

Figure 7.1
Assessment Criteria of Intelligibility of the Speech



Two research questions as objectives of this paper are set as follows:

1. Which factor(s) contribute(s) to Japanese learners' phonological intelligibility?
2. Is there any difference between NS and NNS regarding perception of intelligibility? If so, which factor(s) differ(s)?

7.3 Method

7.3.1 Participants

The participants of this research were six Japanese students at a private university in Kyoto, as the providers of English as foreign language (EFL) utterances, and four NSs and four NNSs as the raters of the EFL speakers' utterances. All of the EFL learners were freshmen, three males and three females, who took the author's English class. The students' majors varied, but there were no students whose major was English. All the students started learning English formally from the seventh grade and none of them had experiences staying abroad for a long period of time, except one student who went to Canada on a school study tour for three weeks in high school. Among the four NSs (all male), two are British, the others are American and Canadian respectively. They had all lived in Japan over a year. The NNS raters consist of a Spanish (a female), a Mexican (a

female), a Chinese (a male) and a Korean (a male). They studied at a private university in Osaka as exchange students. They were required to be able to understand lectures given in English, make a presentation and write a paper in English at the university.

7.3.2 Procedure

First, the Japanese EFL speakers were asked to give a self -introduction speech. They were instructed to provide their name, major, things they liked to do in their free time, and plans for the summer. Although they had to improvise the speech, they were given a paper indicating what to say, written in Japanese, and a minute to prepare silently. Secondly, they were asked to read aloud a short passage in English. They were given one minute to read silently. They made a speech and read aloud privately in front of the author outside class, and the utterances were recorded.

The raters were given an assessment sheet for each speaker and asked to rate the EFL speakers' utterances. The utterances were provided through an online storage site, and the raters were asked to listen to the recording file by accessing them online. The assessment has seven components for rating. In order to avoid confusion in an attempt to rate all of the components at the same time, the ratings were divided into three rounds. In the first round, the raters were asked to assess (1) overall intelligibility. In the second round, the raters were asked to assess (2) individual sound, (3) word stress, and (4) sentence stress. In the third round, the raters were asked to assess (5) tone unit, (6) intonation, and (7) rhythm. For each term, such as tone unit, a brief explanation was given on the assessment sheet. The raters assessed the overall intelligibility through a six-point Likert scale, and for other components, through a five-point Likert scale. In order to avoid a neutral score for intelligibility, which is the main focus of this research, six-point scale was adopted for intelligibility. The author required the raters not to change their previous rating after the first round.

7.3.3 Data Analysis

The data, scores for each student provided by the raters were digitized into an EXCEL format and analyzed for descriptive statistics. Multiple regression analysis was

then performed in order to show the relationship between overall intelligibility as a dependent variable, and its affecting factors consisting of six factors, as independent variables. The statistical analysis was performed using SPSS and AMOS for Windows version 25.

7.4 Results and Discussion

Table 7.1 shows the mean scores (M) and standard deviations (SD) of the scores of Japanese EFL speakers' utterances rated by NS and NNS raters.

Table 7.1

Descriptive Statistics of Assessment of Intelligibility and Contributing Factors by NS and NNS Raters

Item	NS		NNS		All Speakers	
	M	SD	M	SD	M	SD
intelligibility	4.75	0.66	5.17	0.94	4.96	0.84
individual sound	3.08	0.70	3.50	0.65	3.29	0.71
word stress	3.42	0.64	3.08	0.86	3.25	0.78
sentence stress	3.29	0.98	3.04	0.73	3.17	0.87
tone unit	3.08	0.81	3.25	0.88	3.17	0.85
intonation	3.17	0.80	3.13	0.88	3.15	0.84
rhythm	3.04	0.68	3.21	1.12	3.15	0.89

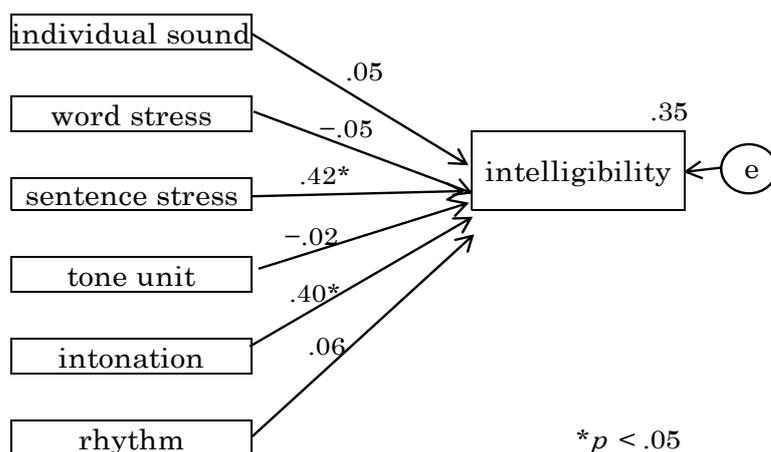
Notes. Maximum score for intelligibility = 6.00. Maximum score for other items = 5.00. N (NS)=24, N (NNS)=24, N (Total)=48

Figure 7. 2 shows the results of the multiple regression analysis of the factors affecting intelligibility rated by NS raters. The multiple coefficient of determination (R^2), seen on the top right corner of the intelligibility square, was $R^2=.35$. This explains the factors, or independent variables might account for 35 % of them in intelligibility of EFL speakers' utterances and 65% can be explained by other than the investigated factors. Looking at the standardized coefficient (β) of the factors, seen on each arrow pointing to intelligibility, sentence stress ($\beta =.42$) and intonation ($\beta =.40$) were statistically significant ($p <.05$). This implies that sentence stress and intonation might have a

positive effect on intelligibility when having a native speaker interlocutor.

Figure 7.2

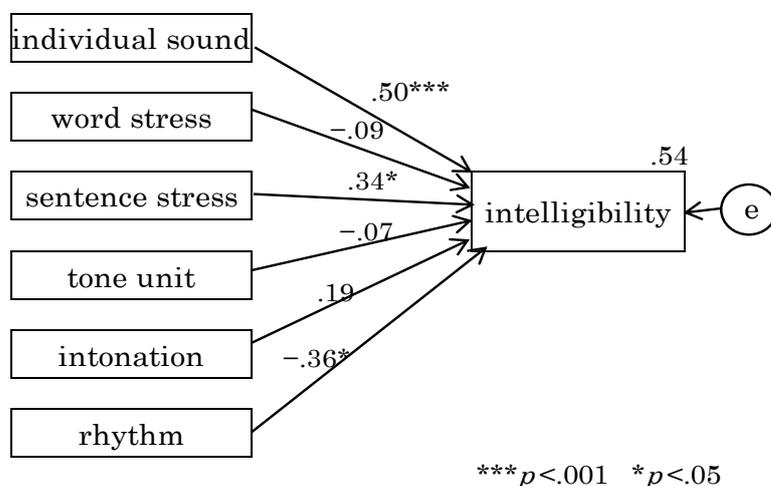
Path Diagram of Affecting Factors for Intelligibility Rated by the Native Speakers of English



Likewise, Figure 7.3 indicates the results of the multiple regression analysis of the factors affecting the intelligibility rated by NNS raters. The multiple coefficient of determination (R^2) was $R^2=.54$, which was higher than that of NS raters. That is, predictors of intelligibility explain 54 % of its variables of intelligibility.

Figure 7.3

Path Diagram of Affecting Factors for Intelligibility Rated by the Non-Native Speakers of English



This seems to support Jenkin (2002)'s claim that NNS interlocutors are more likely to rely on "acoustic signal" and "direct his or her efforts to decoding what has been heard" (p.89) than NS, who have a wider range of phonetic and phonological tolerance and are capable of utilizing contextual information to negotiate meaning. When investigating standardized coefficient (β), individual sound ($\beta = .50$) ($p < .001$), sentence stress ($\beta = .34$) and rhythm ($\beta = -.36$) ($p < .05$) revealed statistical significance. This implies that for NNSs, individual sound and sentence stress are important in judging their interlocutor's utterance. Unexpectedly, rhythm was found to be negatively significant, which needs to be investigated more in the future.

Though this research is limited, particularly in its number of participants and method in capturing Japanese EFL learners' phonological intelligibility, the results attained in this research present two points in response to the research questions discussed in the previous section

The first question is; Which factor(s) contribute(s) to Japanese learners' phonological intelligibility? The results show that there is a significant difference in the assessment by NS raters in sentence stress and intonation. Regarding the assessment by NNS raters, it was found that there are significant differences in individual sound, sentence stress and rhythm, although rhythm was found to be negatively significant. This may mean that NNS raters found that proficiency in rhythm weaken overall intelligibility. However, this needs to be examined closely in the future. Individual sound was found to be particularly high in statistical significance ($p < .001$) in the NNSs' assessments. There was also a positively significant difference in sentence stress in NNS raters' assessments.

The second question is; Is there any difference between NS and NNS regarding perception of intelligibility? If so, which factor(s) differ(s)? As described above, in NSs' assessment, two suprasegmental factors, sentence stress and intonation, were found to be significantly different. This supports the evidence some research has shown that suprasegmentals played a more important role than segmentals from the NSs' perspectives. In NNSs' assessment, there were significant differences in the segmental factor of individual sound, and the suprasegmental factor of sentence stress. This supports Jenkins' (2000) claim that NNSs, even those of a relatively high level of

competence, process speech using a predominance of bottom-up strategies. This means, according to Walker (2010), that “they are heavily dependent on the acoustic signal—the actual sounds that they hear. This dependence can be so great that they become completely thrown by deviations in individual sounds” (p.27). These findings indicate as shown in previous research, that NS prioritize suprasegmental factors in determining EFL speaker’s intelligibility whereas, NNS prioritize segmental factors. However, the suprasegmental factor of sentence stress seems to have a positive effect on intelligibility in terms of both of NS and NNS’s perspectives. These findings might offer an instructional direction of pronunciation for Japanese learners hereafter.

At a time when intelligible pronunciation is thought to be a goal for ESL /EFL learners, and it is, in fact, achievable, much research has searched for priorities in teaching pronunciation. As briefly discussed, some researchers have claimed that priority should be put on suprasegmentals, rather than segmentals. In their study examining the effect of segmental and suprasegmental instruction, Derwing et al. (1998), for instance, claimed that learners who received suprasegmental (mainly prosodic) instruction showed considerable improvement in comprehensibility and fluency in extemporaneous narrative speech, although they propose the importance of both segmentals and suprasegmentals:

Attention to both global and segmental concerns benefits ESL students. In the case of a communication breakdown caused by a mispronunciation, a student who has received segmental training might be able to focus on the mispronounced form in a self-repetition. On the other hand, global instruction seems to provide the learner with skills that can be applied in extemporaneous speech production, despite the need to allocate attention to several speech components. (p.407)

Hahn (2004) used three versions of a mini-lecture to undergraduate students in which a suprasegmental feature, nuclear stress was manipulated. She reported that those who listened to the lecture with misplaced or missing nuclear stress understood the lecture significantly less. Field (2005) found that misplaced lexical stress resulted in decrement

of intelligibility. However, as described in the previous section, there are still a relatively small number of studies from NNS's perspectives, according to Jenkins (2000), who proposes the *lingua franca core*, the components which are crucial in communication with NNS. Those components included in the *lingua franca core* are mostly segmentals, except for nuclear stress.

7.5 Summary

This research reveals that sentence stress seems to have a positive effect on Japanese EFL learners from both NS and NNS's perspectives, whereas, intonation from NS's perspective and individual sound from NNS's seem to be important respectively. Although there is yet to be a consensus among researchers of factors determining intelligibility, particularly "global intelligibility" proposed by Moedjito. (2009), in their overview, Thomson and Derwing (2014) suggest that 82 % of the studies examining effectiveness in improving the target form(s) have reported significant improvement. When considering the current situation of the English classroom in Japan, at every level, more focus on pronunciation instruction is crucial.

Given that intelligible pronunciation is the primary goal for most Japanese EFL learners, more research is necessary to identify factors affecting global intelligibility. When thinking of engaging in international communication with both NS and NNS, this research implies the possibility that individual sound, intonation and sentence stress are particularly to be emphasized in pronunciation instruction in the Japanese classroom. Further research is necessary on other factors affecting global intelligibility and methods to capture them.

Chapter 8

Research 3: Research on Sentence-level Strategies for Improving Japanese Learners' Global Intelligibility

8.1 Introduction

8.1.1 Background

Research on learner's phonological intelligibility has been conducted based on the idea that "Research can help teachers and learners set realistic goals" (Derwing & Munro, 2005, p386) and intelligible pronunciation has been regarded as the realistic goal, as seen in Chapter 5. Field (2005) points out that, up to now, much research on phonological intelligibility has attempted to identify the factors that contribute to the intelligibility of the speaker, and the factors are often discussed in terms of the conflict of segmental/suprasegmental factors.

For example, Field (2005) shows that mis-assigned stress on words impedes intelligibility in lexical recognition of both NS and NNS listeners. The study indicates the importance of stress at the word-level. Regarding sentence-stress, Hahn (2004) investigated the effect of primary stress on the intelligibility of speech of ESL teaching assistants. In the study, three types of mini-lectures were presented to NS university students. The lectures were given: 1. with accurate primary stress, 2. with mis-assigned primary stress, 3. with no primary stress. In the comprehension and evaluation tasks, the first lecture with accurate primary stress had significantly better results.

As seen in Chapter 5, Jenkins (2000), who researched EIL intelligibility in communication among NNSs, claims that segmentals are more important for EIL intelligibility. Most of the items included in the *lingua franca core* proposed by Jenkins are segmentals. Jenkins explains the reason for this is that NNSs tend to depend on the actual sounds they hear as acoustic signals, and they use bottom-up processing.

The research conducted in Chapter 7 shows that sentence-stress and intonation have positive correlations with intelligibility from the NS's perspective, and individual

sound and sentence-stress have positive correlations with intelligibility from NNS's perspective. The results seemed to support Jenkins's claim and other research findings that NSs emphasize suprasegmentals whereas NNSs emphasize segmentals. Furthermore, sentence-stress has found to be a shared factor contributing to intelligibility by both NSs and NNSs.

Even though Jenkins (2000) claims that segmentals are more important in EIL intelligibility, she includes sentence-level items, that is, nuclear stress and tone units in the *lingua franca core*. According to Jenkins, nuclear stress "highlights the most salient part of the message, indicating where the listeners should pay particular attention" (p.153) and tone unit is "the way in which English speakers divide their utterances into smaller meaningful units, or chunks, each containing one nuclear syllable (p.155).

Based on the findings from Chapter 7 and previous research, this chapter assumes that sentence-stress contributes to global intelligibility, and attempts to search for effective instruction focusing on sentence-stress.

8.1.2 Theoretical Framework for the Research

8.1.2.1 Sentence Stress

It has already been discussed in Chapter 5, but it is imperative to re-emphasize the difference in stress between English and Japanese for the current research. In English, stress is always placed on the vowels of one syllable when pronouncing a word, which creates a strong-weak stress pattern of English. The prominence of English stress is defined as "**duration**, or length; **intensity**, or loudness; and **pitch**, or fundamental frequency" (Pennington, 1996, p.129, bold as the original). In other words, the stressed syllable is pronounced louder, higher and longer.

On the other hand, in the Japanese language, two words having the same phonemic structure arrangement are distinguished by the high and low pitch contrast as below as seen in Chapter 5:

$\overline{\text{a}}\text{mé}$ (rain)	$\underline{\text{a}}\overline{\text{m}}\text{é}$ (candy)
$\overline{\text{h}}\text{ashi}$ (chopstick)	$\underline{\text{h}}\overline{\text{a}}\text{shi}$ (bridge)

Accordingly, Japanese EFL learners as their L1 whose stress distinction is between high and low pitch, often do not pay attention to the strong and long stress of English words. As a result, they tend to pronounce English words rather flatly. The same is true for sentence stress.

Celce-Murcia et al. (1996) present some examples illustrating “physical similarities in stress patterns that exist in both multisyllabic words and simple sentences” (p.152) as follows:

● ●	● ●
mother	attend
Do it	You did?
Pay them	It hurts.
● ● ●	● . ●
abandon	guarantee
I saw you.	Have some cake.
We found it	Where's the beef?

Japanese EFL learners tend to pronounce English words and sentences, assigning equal weight regardless of whether a syllable is stressed or unstressed. As a result, their speech tends to have “staccato-like rhythm” (Avery & Ehrlich. 1992, p.74). This characteristic of the Japanese EFL learner is thought to be one factor in impeding intelligibility in their speech. Thus, measures are needed in order to overcome these difficulties.

When teaching sentence-stress, it is important to show Japanese learners that stress should be placed on content words, and major sentence stress, which has more salient stress is usually placed on the last content word in the sentence. Also, as has been already stated, a stressed syllable of words and sentences in English is pronounced louder, higher

and longer. However, Japanese is a so-called syllable-timed language, in which the amount of time required to say a sentence depends on the number of syllables. Due to this syllable-timed rhythm restriction, the difference in stress does not appear in length as different as in English (Kubozono,1998). Consequently, as seen in Chapter 3, it is often taught that a stressed syllable is pronounced louder, or more strongly, in English classes. However, its length is not emphasized. Therefore, sentence stress needs to be taught to pronounce not only louder and higher, but also longer.

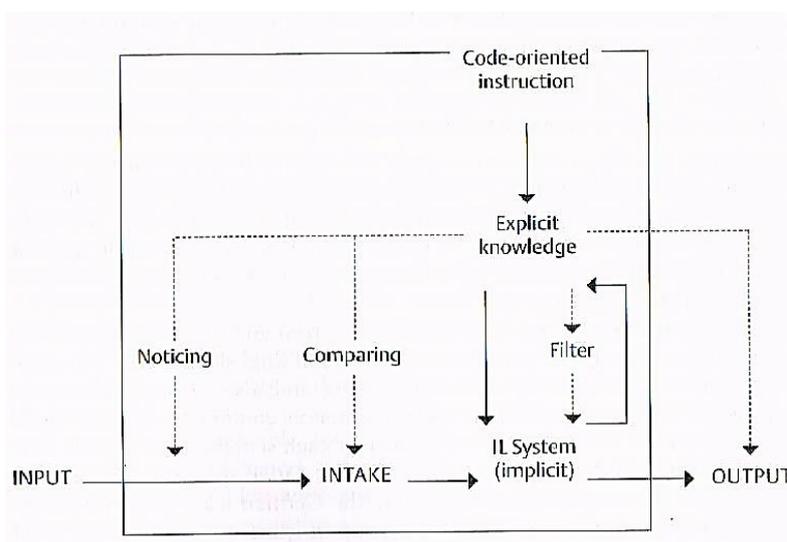
Since sentence-stress is closely related to the stress-timed rhythm of English, focusing on sentence-stress in pronunciation instruction is thought to improve Japanese EFL learners' intelligibility.

8.1.2.2 Role of Explicit Instruction

Ellis (2008) shows the role of explicit knowledge in second language acquisition, particularly in instructed language acquisition, seen in Figure 8.1.

Figure 8.1

The Role of Explicit Knowledge in L2 Acquisition. (Ellis, 2008, p.423)



According to Ellis, explicit knowledge is a “facilitator of implicit knowledge” (p.423) and it “contributed indirectly to the development of implicit knowledge by helping

learners to notice linguistic forms in the input and to carry out a comparison between what they have noticed and their own current interlanguage” (p.423). Thus, explicit knowledge and “code-oriented instruction,” or explicit instruction which affects explicit knowledge are to be focused on.

Regarding the effect of explicit knowledge, Venkatagiri and Levis (2007), for example, examined whether phonological awareness has a correlation with L2 learner’s speech comprehensibility. They had L2 learners take a phonological awareness test which measured L2 learners’ explicit knowledge of English phonological items. They reported that there was a strong correlation between the phonological awareness test scores and rated comprehensibility of the L2 learners’ speech. The result implies that explicit knowledge in phonology contribute to ESL/EFL speakers’ comprehensibility.

Regarding the effect of form-focused instruction, Saito (2011) gave Japanese ESL learners a specific instruction focusing on English segmentals /æ, f, v, θ, ð, w, l, ɹ/. After the instruction period, NS listeners rated the ESL learners’ speech in terms of accentedness and comprehensibility. There was a significant improvement in the comprehensibility of a sentence-reading task.

Furthermore, Akatsuka et al. (2018)’s research showed that explicit instruction in intonation on Japanese university students led to an accurate perception and production in distinguishing differences in intonation. Research has shown the role of explicit knowledge and instruction on the phonological features of English.

8.1.3 Objectives

This research assumes that explicit instruction on sentence-stress is effective and leads to an improvement in EFL learners’ intelligibility.

Ito (2014) calls the weak-strong rhythm of English words and sentences as “sound pattern” and emphasizes the importance of not only exposure to pronunciation, but also of presenting the pattern with a visual image as below:

breakfast ○○	See you.	Thank you.	Come here.
Chinese ○○	Take care	Watch out	Sounds great.
computer ○○○	I like it.	You made it.	I'll miss you.
engineer ○○○	I like apples.	See you later.	Thanks a lot.

Current research examines whether Japanese EFL learner's intelligibility improves when a visualized image of the "sound pattern" of sentence-stress is presented to the learners along with explicit instruction.

There are other ways to show stress, such as presented by Celce-Murcia et al. (1996). The followings are examples (p.144):

CAPitals
boldface
● ▪
bubbles
áccents
underlining

As a preliminary survey, I chose bubbles and capitals, however, the reading aloud task showed the decline of learners' intelligibility in general. Some learners claimed that the visualized letters made the words and sentences look different and it took them longer to process the information. Consequently, the following method which makes stressed syllables bigger and written in bold letters is adopted in this research as below:

sentence stress

As already discussed, sentence stress has been found to be a shared factor contributing to intelligibility for both NS and NNS listeners. Therefore, with the aim of improving the global intelligibility of Japanese EFL learners, the author would like to verify the

following research question: Do the explicit instruction on sentence stress and visually salient image of sentence stress lead to overall intelligibility of Japanese EFL learners?

8.2 Method

8.2.1 Participants, Time and Place

As providers of Japanese EFL learners' speech, the author asked 20 students who took the author's beginner English class at a private university in Kyoto to participate in the study. All the students were freshmen, and none of them had any certificate showing their level of English. However, the class level was beginner and the targeted level was approximately below a 400 on the TOEIC test. There were 12 males and 8 females. Their majors varied, but no students majored in English or any other foreign language. None of them had experienced studying or staying abroad except on short trips. It was explained to the students that participation would have no effect on their grades for the class, and that their personal information would not be revealed.

As raters, two native speakers of English were asked to rate the speech. Both of them were male. One was American with a master's degree in linguistics. He had lived in Japan for approximately three years. He considered his Japanese language proficiency to be at the intermediate level with an N3 level of Japanese Language Proficiency test score. As he self-reported, the N3 level refers to intermediate. With the ¹⁸N3 level, the learners are able to understand basic daily conversation to a certain extent. The other was an English man who had lived in Japan for 13 years. He self-reported his Japanese language level as "false" beginner. He had a master's degree in sports psychology. Both of individuals had taught English to Japanese students, thus it was expected that they were accustomed to the English of Japanese EFL learners.

The instruction and recordings were conducted during the period from June 16 to June 19, 2020. Under the circumstances of the Covid-19 calamity, the instructions were conducted online.

¹⁸ Referred to the website of Japanese Language Proficiency Test:
<https://www.jlpt.jp/about/levelsummary.html>

8.2.2 Procedure

The 20 students were divided into two groups (experimental group, control group). The experimental group received a roughly ten-minute explanation of sentence stress and practice of reading aloud the sound-pattern visualized sentences. After that, the group was asked to read aloud a passage consisting of four sentences, record and submit the recorded file. The mean number of words of the sentences was eleven. The passage was adapted from the interview test of the pre-second grade of English Proficiency test. The pre-second grade level is the equivalent to A2 level of the CEFR (Common European Framework for Reference). Since this research focuses exclusively on pronunciation, only the reading-aloud task was adopted. Also, in order to avoid the possibility that the students would have difficulty in reading aloud because of difficult spelling, the passage consisting of rather simple and easy words was chosen from the pre-second grade level.

Regarding the explanation and practice of roughly ten minutes, first, the following slide (Figure 8.2) was shown to the experimental group with a brief explanation online. The first slide contains the “sound pattern” identified by Ito (2014), and an explanation of the similarities in stress pattern that exist between words and simple sentences was given.

Figure 8.2

Explanation of Sound Pattern

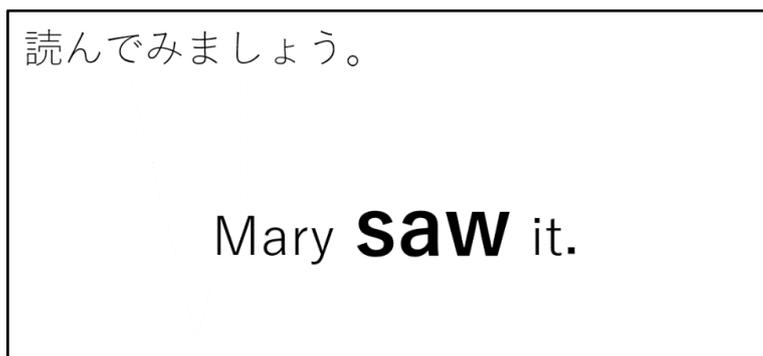
英語の文の音型
大きい○を強く長く読みましょう。

breakfast ○○	See you.	Thank you.	Come here.
Chinese ○○	Take care	Watch out	Sounds great.
computer ○○○	I like it.	You made it.	I'll miss you.
engineer ○○○	I like apples.	See you later.	Thanks a lot.

Next, five slides as seen in Figure 8.3 were presented in order that the students got used to reading aloud sound-pattern visualized sentences.

Figure 8.3

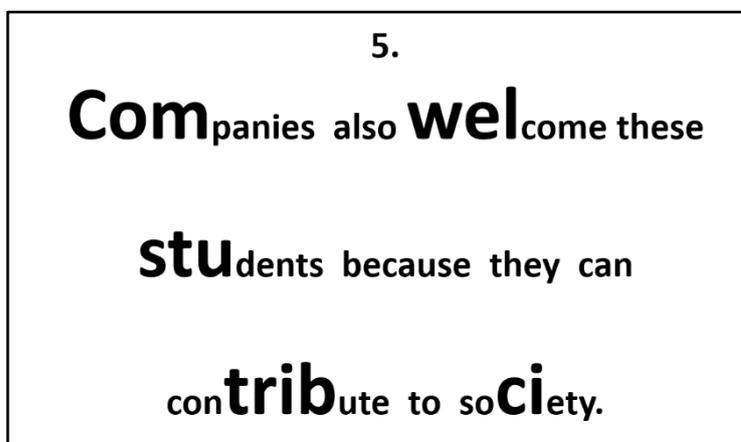
Practice of Sentence Stress



As stated above, the instruction and the slides were given to the students of the experimental group online. The above stated slides taken from the pre-second grade English proficiency test were then distributed to the students through the university's e-learning platform named "Moodle." The students were asked to read aloud the slides and record themselves using the smartphone recording function.

Figure 8.4

A Slide Shown to the Experimental Group

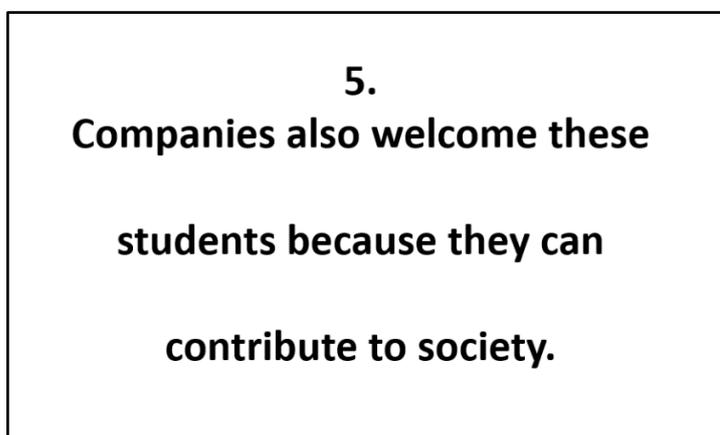


Then the recorded files were submitted in MP3 or MP4 format through Moodle to the author. Figure 8.4 was the one slide given to the experimental group.

Regarding the control group, slides of the same passage, but without the sound-pattern visualized sentences were distributed as seen in Figure 8.5. The students in the control group were also asked to record themselves reading aloud and to submit the recorded file via Moodle.

Figure 8.5

A Slide Given to the Control Group



The submitted files recorded by the students were converted to MP3 after eliminating external noise, using the free audio editing application, *Audacity*. The recorded files were uploaded on an online storage site for the two NS raters to rate. The NS raters were asked to rate all the students' overall intelligibility using the five-point Likert scale (1=not intelligible at all, 2=slightly intelligible, 3=partly intelligible, 4= reasonably intelligible, 5= intelligible).

8.2.3 Data Analysis

First, the inter-rater reliability coefficients for listener judgement were calculated in order to judge the validity of the ratings. Then, descriptive statistics were conducted in order to see the overall tendency shown in the two groups. Furthermore, in order to look at the difference between the groups, a *t*-test was performed. SPSS for Windows

version 25 was used for all the statistical analysis.

8.3 Results and Discussion

First, inter-rater reliability coefficients were calculated for the two raters' intelligibility scores. The result was Cronbach's $\alpha=0.749$. Therefore, the two raters' judgement was thought to be reliable. Then, a descriptive statistical analysis was conducted. Table 8.1 shows the descriptive statistics of the intelligibility scores of the two groups, with average scores, SD, minimum and maximum scores.

Table 8.1
Rated Scores for Intelligibility

		intelligibility
Control group (<i>N</i> =10)	<i>M</i>	3.65
	<i>SD</i>	0.58714
	Minimum	3
	Maximum	5
Experimental group (<i>N</i> =10)	<i>M</i>	4.1
	<i>SD</i>	0.55251
	Minimum	3
	Maximum	5

Note . The Likert scale represents as follows: 1=not intelligible at all, 2=slightly intelligible, 3=partly intelligible, 4= reasonably intelligible, 5= intelligible

Next, the Levene test demonstrated the homogeneity of variance of the two groups ($F=2.236, p=.143$ ($p >.05$)). Finally, *t* test was performed. On average, the experimental group showed significantly higher intelligibility score than the control group ($t(38)=2.496, p=.017$ ($p <.05$)). Also, it did present a medium sized effect $r= .38$.

In response to the research question, which asks whether an explicit instruction focusing on sentence stress and visually salient image of sentence stress lead to overall intelligibility of Japanese EFL learners, the result of the *t* test showed a significant difference on average of intelligibility score between the experimental group and the control group. This result implies the effect of explicit instruction and visualized image of sentence stress on learners' intelligibility, and the necessity of form-focused

instruction (FFI) on pronunciation. However, Saito and Lyster (2012) point out most of the research on FFI has been on morphosyntactic items, and there has been rather less amount of research on phonological items.

When discussing FFI, two types of form-focused instruction, that is, focus-on-formS and focus-on-form need to be considered. Focus-on-formS is a type of instruction that “seeks to isolate linguistic forms in order to teach them one at a time as when language teaching is based on a structural syllabus” (Ellis, 2008, p.870). On the other hand, focus-on-form instruction alternates “some principled way between a focus on meaning and a focus-on-form, and it “involves the use of tasks as opposed to exercises. (Ellis, 2008, p.870). Ellis states the definitions of two types of FFI as follows:

I chose to define these in terms of whether learners attend to form while they are primarily oriented towards message-comprehension/production in order to achieve the outcome of some ‘task’ as opposed to whether they attend to form in activities whose principal goal is accurate language use (i.e. in ‘exercise’ of one kind of another). (p.870)

The target of research on focus-on-form has often been in the field of the acquisition of grammar and vocabulary. However, Doughty and Williams (1998) assume that the principle of the focus-on-form can be applied to the phonology.

In opposition to focus-on-form, focus-on-formS, which isolates a linguistic form in teaching, has been a standard instruction and practice in pronunciation teaching. However, Venkatagiri and Levis (2007) argue that its effect on the pronunciation has not been verified yet. Saito and Lyster (2012) suggest that one reason for the dominance of the focus-on-formS approach in pronunciation instruction is that “pronunciation requires not only metalinguistic knowledge (i.e., pronunciation rules) but also physical action (i.e., motor activities); that is, L2 learners need to develop abilities to manipulate articulatory organs properly to produce correct L2 sounds” (p.599). Further attempts might be needed to incorporate pronunciation instruction in focus-on-form type instruction as well as in focus-on-formS instruction.

Venkatagiri and Levis (2007) state that an important concept of focus-on-form research is noticing. What an ESL/EFL learner notices in the input becomes intake for learning. In this study, the author considers this learner's "noticing" important in pronunciation instruction regardless of focus-on-form or focus-on-formS instruction. Spada (1997) states that learners who received FFI (form-focused instruction) outperformed learners who received meaning-only instruction. Ellis (2008) summarized methodological options in FFI as below:

1. Input-based options (i.e. instruction that involves the manipulation of the input that learners are exposed to or are required to process).
2. Explicit options (i.e. instruction directed at helping learners develop explicit knowledge of the target structure).
3. Production options (i.e. instruction directed at enabling /inducing learners to produce utterances containing the target structure).
4. Corrective feedback options. (pp.869-870)

The options adopted in this study are the above-stated 1 and 2. According to Ellis, 1. input-based option contains "input flooding (i.e. input that contains many examples of the target structure), enhanced input (i.e. input with the target feature made salient to the learners, for example, by means of emphatic stress or bolding), and structured input (i.e. input that has been contrived to induce processing of the target feature)" (p.869).

Ellis also states that explicit options contain "both direct explicit instruction (i.e. learners are provided with metalinguistic descriptions of the target feature) and indirect explicit instruction (i.e. learners are provided with data illustrating the target feature and are required to 'discover' the rule for themselves)" (p.869).

In this study, regarding input-based options, enhanced-input which showed slides of sentences with sentence-stress visualized with bold and bigger letters was used. Regarding explicit options, a brief explanation of sentence-stress was adopted. As suggested by Ellis, there are other options for FFI, and they can be applied to pronunciation instruction.

Saito and Lyster (2012), for example, examined whether FFI and CF (corrective feedback) improved Japanese learner's pronunciation of /ɹ/. They used the following types of FFI in their study:

- (a) structured input (i.e., learners process linguistic form in the input for meaning without being pressured to produce output),
 - (b) typographically enhanced input (i.e., target structures are highlighted by means of intonational stress or visual changes such as italics or boldface to induce learners to notice the forms in oral and written second language [L2] input), and
 - (c) focused tasks (i.e., communicative activities designed to create obligatory contexts that elicit learners' use of a specific linguistic feature in production)
- (p.594)

As a result, it was shown that an experimental group which received not only FFI but also CF, using recast improved their pronunciation. However, a group which received only FFI did not show significant improvement. The research showed that only explicit instruction is inadequate, and further interference of instruction, such as CF, leads to improvement of ESL learners' pronunciation.

Current research might indicate the possibility of explicit instruction, or FFI, on sentence-stress. However, the effectiveness needs to be investigated further from other perspectives, such as the type of FFI (focus-on-formS, or focus-on-form) and other options (production, corrective feedback options). At the same time, further research into the effect of sentence-stress instruction on intelligibility is necessary.

8.4 Summary

As stated by Derwing and Munro (2005), "students learning L2 pronunciation benefit from being explicitly taught phonological forms to help them notice the difference between their own production and those of proficient speakers in the L2 community" (p.388). In this research sentence-stress is assumed to contribute to global intelligibility of Japanese EFL learners, and FFI and enhanced input of sentence stress

were presented to an experimental group. The results imply the possibility that explicit instruction and enhanced input focusing on sentence stress leads to an improvement in Japanese EFL learner's overall intelligibility.

However, this research has limitations, in the method of capturing the learners' intelligibility, and research scale, in terms of the number of participants, and the length of instruction. Also, the durability of FFI was not examined. Thus, it is possible that the beneficial effects are only temporary.

First, the methods of capturing learners' intelligibility need to be discussed. However, before discussing the method, it is necessary to review the two terms which have often been used in measuring learner's phonological proficiency. Again, they are, intelligibility and comprehensibility. As discussed in Chapter 5, this research defines intelligibility as the extent to which listener recognizes what a speaker intended to convey, not extending to the interpretation of the utterances.

Derwing et al. (1998) define intelligibility as referring to "how much of an utterance the listener processes successfully", and comprehensibility as referring to the "listener's judgement of how difficult it is to understand an L2 speech production" (p.396). According to these authors, intelligibility measurement can be "quantified through comprehension questions or an orthographic transcription task" (p.396), where they had the listeners transcribe what they had heard in the L2 speech, and calculated the ratio of the accurately transcribed words to all the words in the speech. Thus, intelligibility is a more objective method for them than comprehensibility ratings in which they had the evaluators judge by their "subjective" impression of the L2 speech using the Likert scale.

Schiavetti (1992) suggests two measurement methods for speech intelligibility of impaired speakers of English. They are:

- (1) word identification tests in which the listener is required to write down what the talker says and
- (2) scaling procedures in which the listener makes judgements about the talker's intelligibility using a technique such as an equal appearing interval scaling

procedure or direct magnitude estimation. (p.15)

This research adopts the above-stated scaling procedure, asking the raters to give an impressionistic scale of intelligibility on the five-point Likert scale. As discussed by Derwing et al. (1998), the procedure of impressionistically rating is not without problems. That is, the rating can be subjective. However, Derwing and Munro (1997) also showed there was a high-degree of reliability among NS raters' rating-judgement in the speech intelligibility of NNSs. They explained that NS listener are sensitive to NNSs' speech and share a sense of what constitutes being "intelligible versus unintelligible" (p.381). The above-stated Schiavetti (1992) also points out that an advantage of scaling procedure lies in its "relative simplicity of use" (p.17).

Aside from the scaling procedure, there are other ways to measure intelligibility, such as the above-stated word-identification test, suggested by Schiavetti (1992). As already stated, Derwing et al. (1998) used the method. They had NS listeners "write out in standard orthography exactly what they had heard" as a transcription task. Then, they counted "the number of words exactly matching the original" and they are "counted for each utterance and converted to a percentage score for each listener." They state that the transcription method is "simple and objective, and yields nearly identical results" (p.223).

Furthermore, in the study which showed that accurate primary stress contributed to the intelligibility of the speech of ESL teaching assistants, Hahn (2004) had NS listeners write as much as they remembered from a mini-lecture they were given., and had the NS listeners take a short-answer-comprehension quiz based on the lecture. The attained score was then calculated to show the intelligibility of the speech.

According to the summary of the pronunciation instruction research by Thomson and Derwing (2014), of 75 L2 pronunciation studies, 79% of the studies have adopted "human listener" assessments such as transcription tasks, comprehension tasks and listener judgement using the Likert scale, whereas the remaining 21 % have used "acoustic measures." A detailed description was not given. However, the acoustic measures adopts speech analysis using some software, such as *praat* and *speech analyzer*

and examines “discrete features of the speech signal, such as ¹⁹VOT for stops (e.g., Suarez, 2008), formants for vowel diphthongization (e.g., Counselman, 2010), and pitch (e.g., Hincks & Edlund, 2009)” (Thomson & Derwing, 2014, p.7).

Because of the difficulty in measuring ESL/EFL learners’ speech, some research using both human listener assessment and acoustic measures (e.g., Saito and Lyster, 2012). Current research uses a single method, however, other methods to measure the effectiveness of the instruction need to be adopted for more accurate results.

As the second main limitation of this research, the scale of the research, particularly in the length of instruction is enumerated. Derwing et al. (1998) state that some research has looked at “the short-term effectiveness of very limited training on various aspects of oral production” (p.394). They point out the limitation of these studies in the fact that assessment of a speech production was conducted immediately after the instruction. The same thing is true for the current research, therefore, the effectiveness of continuous instruction for a longer period of time needs to be assessed in the future. However, at the same time, the current study has shown the prospect of FFI of sentence stress in order to improve Japanese EFL learners’ phonological intelligibility. Further continuous research is necessary in order to search for methods to improve Japanese EFL learners’ intelligibility as well as to make the effect of instruction last into the future.

¹⁹ VOT: Voice onset time

Chapter 9

Conclusion

This final chapter first summarizes each chapter of the dissertation. Secondly, based on the previous research and current research findings, a desirable direction of pronunciation instruction in Japan is discussed. Finally, the limitations of the current study and further problems to be solved are stated.

9.1 Summary of the Study

This study started by discussing the topic from the point where the importance of pronunciation in international face-to-face communication had been recognized. As has been discussed up to this point, intelligibility of pronunciation is imperative in oral communication. Therefore, this dissertation has had a focus that is based on three objectives:

- (1) To build the theoretical construct regarding factors determining global intelligibility.
- (2) To investigate the factors determining the global intelligibility of English pronunciation through analysis of Japanese university students' speech from both native and non-native speakers' points of view.
- (3) To suggest pedagogical guidelines which guarantee global intelligibility for Japanese learners based on results retrieved from previous articles and texts and the research conducted here.

Along with these objectives, the dissertation is divided into three parts. Part 1 (Chapters 2 and 3) was written in order to understand the current situation of pronunciation instruction. In Part 2 (Chapters 4 and 5), a theoretical framework of phonological intelligibility based on EIL (English as an international language) was presented. In Part

3 (Chapters 6, 7 and 8), three pieces of research were conducted in order to search for a direction that will lead to an improvement in Japanese learners' global intelligibility. The overall summary starting from Chapter 2 is laid out from this point onwards.

Chapter 2 described the position of pronunciation instruction in the history of foreign language education. Until the beginning of the 19th century, written language had been prioritized over spoken language, thus, pronunciation was not valued. However, in the 1850s, spoken language began to be prioritized over written language, and pronunciation was taught predominantly from the initial stage of instruction in the Direct Method, which appeared around this time. Furthermore, The Reform Movement, where pronunciation was analyzed scientifically created more interest in accurate pronunciation and pronunciation instruction. After the end of the prosperity of the Audio-Lingual Method, pronunciation experienced some decline, however, interest in pronunciation instruction and research has been growing since the end of the 1990s. Along with that, there has been more research on second/foreign language pronunciation and instruction. However, the field is rather new. The consensus of the researchers regarding the goal of pronunciation instruction now is intelligible pronunciation, and one of the themes of pronunciation research is what constitutes pronunciation intelligibility and what to teach for intelligible pronunciation.

Chapter 3 described the current situation of pronunciation instruction in Japan. In the Junior High School Course of Study, the contents of pronunciation have become more specified over the last sixty years. Also, the pronunciation to be taught was "contemporary British or American standard English" up until the 1969 version. However, it was changed to "contemporary standard pronunciation" in the 1977 version. It represented an extrication from the nativeness principle (Levis, 2005). Furthermore, from an analysis of the authorized junior high school English textbooks and the standardized English entrance examination, it can be concluded that pronunciation instruction is rather inadequate in English education in Japan.

Chapter 4 stated the place of English as an international language (EIL). English was mainly spoken by native speakers who lived predominantly in British Isles at the end of the 16th century with the number of speakers being approximately five to seven

million people. Now there are approximately 620 million to 880 million speakers of English worldwide, including the people who speak English as their L2 in Outer Circle countries. The use of English has been expanding beyond national borders, ethnic and cultural boundaries, and nowadays it is estimated that the ratio of native speakers (NS) and non-native speakers (NNS) is 1:3 (Crystal, 2003). Given that English as an international language (EIL) is defined as a common language used for communication between speakers with different L1 and cultural backgrounds, it is clear that this English needs to be mutually intelligible in order to function as an international language. Even though there are many varieties of English, written versions of English do not vary that much. However, versions of spoken English vary to the extent that they become mutually unintelligible. In international face-to-face communication including NS, intelligible pronunciation is crucial. Thus, more research on pronunciation intelligibility for EIL is needed.

Chapter 5 described the framework of intelligibility research based on the previous literature. There has, as yet, been no general consensus regarding the definition of intelligibility. However, it has been clarified that phonological intelligibility is a fundamental requirement for oral communication. This dissertation defines intelligibility as the extent to which the listener recognizes what a speaker intended to convey, not extending the meaning or interpretation.

Most of the studies have focused on intelligibility from the perspective of the NS, but some studies have been conducted from the NNS's point of view. Research findings have generally shown that for NS listeners, suprasegmentals, such as intonation and word stress, are more important than segmentals for learners' phonological intelligibility. On the other hand, in oral communication between NNSs, sound accuracy in segmentals are more important.

There has also been rather little research on Japanese learners' intelligibility, but some research has been conducted from both NS and NNSs perspectives. The findings vary, although there is some agreement that for NNSs' interlocutors, segmentals are more important. It is still not certain if there are any kind of "core" features for Japanese learners' global intelligibility which is crucial when engaging in communication with

both NSs and NNSs, AS proposed by Moedjito (2009).

In Part 3, from Chapters 6 to 8, there were three pieces of research conducted. As a first piece of research, Chapter 6 investigated Japanese university students' knowledge, learning experience and attitude toward English pronunciation through a questionnaire in the hope that the results of the questionnaire research would lead to a better understanding of the current situation surrounding Japanese university students. From the findings obtained in the research, three points were identified. The first is that Japanese university students generally had little learning experience in English pronunciation at junior/senior high school. As a result, they do not have sufficient knowledge of English pronunciation. The third is that their learning experience, knowledge and attitude towards English pronunciation are related to each other in some respects.

In Chapter 7, with global intelligibility in mind, the author conducted a study on Japanese learner's phonological intelligibility from both NS and NNS's points of view. As factors affecting intelligibility, seven factors are set, i.e., 1. individual sound (consonants and vowels), 2. word stress, 3. sentence stress, 4. tone unit, 5. intonation, 6. rhythm, 7. fluency. Japanese learners' utterances were rated based on these seven factors by both NS and NNS raters. As a result, there is a significant difference in sentence stress in both NS and NNS's ratings. The result implies the possibility that sentence stress is to be particularly emphasized in pronunciation instruction with globally intelligible pronunciation as the primary goal.

Chapter 8 examined whether an explicit instruction focusing on sentence stress and a visually salient image of sentence stress lead to overall intelligibility of Japanese EFL learners. 20 Japanese learners were divided into two groups; an experimental group and a control group. The experimental group received explicit instruction on sentence stress and was given slides which highlighted sentence stress. The learners of the group were asked to read aloud the sentences on the slides and record them. The control group were asked to read aloud the slides which contained the same sentences, but without instructions or pointers highlighting the sentences. The recorded files were rated by two NS raters using the five-point Likert scale in terms of intelligibility. The calculation of *t*

test showed that on average, the experimental group's learners got significantly better intelligible scores than those of the control group. The results seem to indicate the effectiveness of pronunciation instruction focusing on sentence stress on overall intelligibility.

9.2 Pedagogical Implications, Unsolved Issues and Suggestion for Further Research

In this dissertation, first, Part 2 implies the necessity for further research on pronunciation and pronunciation instruction. It was also revealed that pronunciation instruction is inadequate in English education in Japan, and the pedagogical direction for pronunciation instruction has not been set because phonological intelligibility has not been recognized as a pronunciation teaching/learning goal in Japan. Part 2 summarizes the theoretical framework for English as an international language (EIL) and the previous literature on intelligibility. In Part 3, three pieces of research were conducted. The first was a questionnaire on Japanese university students which revealed that Japanese university students had relatively little knowledge and learning experience of English pronunciation. On the other hand, many students showed interested in pronunciation and realized its importance. The findings from the second piece of research suggest that a factor contributing to global intelligibility in terms of EIL was sentence stress. In the third piece of research, pronunciation instruction focusing on sentence stress turned out to be effective.

Based on the findings and discussion in the current study, mainly two pedagogical implications are suggested, particularly for pronunciation instruction in English education in Japan. First, more focus needs to be put on pronunciation instruction. In order to emphasize pronunciation, framework for English teaching, such as curricula, textbooks and standardized entrance examination tests need to be considered further, along with raising awareness of those who are involved in English education in terms of realizing the goal of pronunciation instruction as intelligible pronunciation. Secondly, based on the findings that focusing on sentence stress is expected to lead to an improvement in Japanese EFL learners' global intelligibility, it can be implied that more focus needs to be placed on suprasegmental items, such as sentence stress in English

class in Japan at every level. Among many items of English pronunciation, sentence stress is an item which is rather teachable, and at the same time, a key factor to maintain Japanese EFL learners' global intelligibility. It is crucial to continue further to search for some that are teachable and learnable, such as sentence stress. As stated in Chapter 5, English is phonologically more complicated than the Japanese language, thus, there are a lot of difficult items for EFL learners with Japanese as their L1. Based on the findings, conducting research on methods of pronunciation instruction which have a lasting effect is also necessary.

This dissertation has several limitations, particularly in research methods and scale as stated in Chapter 8. First, the method capturing the factors contributing intelligibility was limited. In order to attain more accurate results, it is necessary to use not only one method, such as a scaling procedure in which the listener judges about the EFL learner's speech intelligibility using Likert scale, as in the current research, but also other methods using tasks such as transcription and comprehension tasks. Also, acoustic measures using speech analyzing software can be beneficial. Secondly, scale of the research was limited, particularly in the number of participants and the length of instruction for research 3. In order to verify the effectiveness of instructional method, instruction for a longer period of time and measuring learner's speech intelligibility after a certain period of time will produce more accurate results. Multilateral approaches which make use of various methods and further research is needed in the future in order to capture factors contributing to global intelligibility and to search for effective pronunciation instruction methods.

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Appendix A

Sheet Used for Research 1:

Questionnaire Distributed to University Students for Research 1

日本人大学生を対象とした英語発音の学習経験・意識に関するアンケート

このアンケートは皆さんに任意でお願いする大学生の英語発音に関する学習経験・意識を調査するために行うものです。率直なお答えをお願いします。以下の質問に対するご自身の回答の記号、または番号に丸印をつけてください。

A. あなたご自身のことについてお尋ねします。

- 男性ですか。女性ですか。
ア. 男性 イ. 女性
- 学年は次のうちどれですか。
ア. 1年生 イ. 2年生 ウ. 3年生 エ. 4年生
- 英語の学習歴であてはまるものに○をつけてください。
ア. 小学校に入る前に塾・英会話教室などで始めた イ. 小学校低学年で始めた
ウ. 小学校中学年で始めた エ. 小学校高学年の外国語活動から始めた。
- 英語の発音についての学習は好きですか。
4. とても好き 3. 好き 2. 好きではない 1. 全く好きではない
- あなたの今の英語力を TOEIC テスト (990 点満点) のスコアに当てはめるとどの程度だと思いますか。スコアに○をしてください。既に受験したことがある人はご自分が獲得したスコアに○をつけてください。
ア. 300 点未満 イ. 300~449 点 ウ. 450~599 点 エ. 600~749 点 オ. 750 点以上

B. あなた自身の英語発音に関する知識についてお尋ねします。

- 次の発音問題を解いてみてください。
(ア) 次の問題 (1~6) において、下線部の発音が他の三つと異なるものに○をしてください。

(1) 1. gl <u>o</u> ve	2. <u>o</u> nion	3. g <u>o</u> ven	4. p <u>o</u> rge
(2) 1. c <u>a</u> sual	2. c <u>a</u> ssic	3. h <u>a</u> bit	4. l <u>a</u> bel
(3) 1. e <u>a</u> se	2. l <u>o</u> ose	3. p <u>a</u> use	4. p <u>r</u> aise
(4) 1. c <u>i</u> inema	2. l <u>i</u> tter	3. m <u>i</u> nor	4. r <u>i</u> tual
(5) 1. c <u>o</u> mb	2. g <u>o</u>	3. l <u>o</u> t	4. <u>o</u> nly
(6) 1. al <u>th</u> ough	2. s <u>i</u> gh	3. t <u>o</u> ugh	4. w <u>e</u> igh
- 次の問題 (1~6) において、第一アクセント (第一強勢) の位置が他の 3 つと異なるものに○をしてください。

(1) 1. n <u>o</u> vel	2. p <u>a</u> rade	3. r <u>e</u> scue	4. v <u>i</u> tal
(2) 1. a <u>u</u> dience	2. f <u>u</u> neral	3. o <u>o</u> ri <u>g</u> in	4. s <u>u</u> r <u>v</u> ival
(3) 1. a <u>t</u> mosphere	2. d <u>o</u> mestic	3. e <u>q</u> uip <u>m</u> ent	4. r <u>e</u> luctant
(4) 1. d <u>e</u> clare	2. e <u>t</u> hnic	3. l <u>o</u> gic	4. m <u>e</u> thod
(5) 1. a <u>p</u> pointment	2. d <u>e</u> licate	3. o <u>o</u> rganic	4. s <u>s</u> picious
(6) 1. c <u>o</u> nference	2. e <u>s</u> timate	3. p <u>r</u> oposal	4. r <u>e</u> sident

ウ. 次の発音記号が示す英単語を書いてみてください。(わからない場合は何も書かないでください)

- | | | | |
|------------------|-------|----------------------|-------|
| (1) /stéɪʃən/ | _____ | (4) /dɪfɪkəlt/ | _____ |
| (2) /ɪmpə'rtənt/ | _____ | (5) /θáʊznd/ | _____ |
| (3) /təgédər/ | _____ | (6) /kənt'rɒbjú:ʃən/ | _____ |

2. 発音記号の読み方について学んだことがありますか。

4. ある 3. ある程度ある 2. あまりない 1. 全くない

3. 「フォニックス」について学んだことがありますか。

4. ある 3. ある程度ある 2. あまりない 1. 全くない

4. /f/の音(例: funny)の発音の仕方(唇の形、歯の位置など)を簡単に説明してみてください。

C. あなたの英語の発音に関する学習経験についてお尋ねします。

1. 中学・高校の英語の授業で以下の項目について具体的に教えてもらったことがありますか。

(ア) 個々の音の発音の仕方(例: /r/を発音するときの舌の位置、唇の形)

4. ある 3. ある程度ある 2. あまりない 1. 全くない

(イ) 単語のアクセントの位置(強勢を置くところ)

4. ある 3. ある程度ある 2. あまりない 1. 全くない

(ウ) 英語の文のリズム

4. ある 3. ある程度ある 2. あまりない 1. 全くない

(エ) 英語の文のイントネーション

4. ある 3. ある程度ある 2. あまりない 1. 全くない

(オ) 英語の文で強勢を置くところ(例: Kyoto is the **oldest** city in Japan.)

4. ある 3. ある程度ある 2. あまりない 1. 全くない

(カ) 英語を発音する時の息の使い方

4. ある 3. ある程度ある 2. あまりない 1. 全くない

2. 中学・高校の英語の授業で教師から英語の発音を正されたことがありますか。

4. ある 3. ある程度ある 2. あまりない 1. 全くない

D. あなたの英語の発音に関する意識についてお尋ねします。

1. 発音記号がわかると英語が正しく発音できると思いますか。

4. 強くそう思う 3. そう思う 2. そう思わない 1. 全くそう思わない

2. 新しい英単語を辞書で調べた時に発音記号にも目を通し確認しますか。

4. いつもする 3. 時々する 2. あまりしない 1. 全くしない

10. 現在、英語は国際語となり、発音にも様々な変種（インド英語やシンガポール英語など）があります。それでも日本人は従来通りアメリカやイギリスを代表する「ネイティブスピーカー」の発音を身に付けることを目指すべきだと思いますか。また、その思う理由を下に簡単に書いてください。

4. 強くそう思う 3. そう思う 2. あまりそう思わない 1. 全くそう思わない

理由：

11. 日本人は細かい発音のことなど気にせず日本語的英語（Japanese English）を話せば良いという意見に賛成ですか。また、その思う理由を下に簡単に書いてください。

4. 大いに賛成 3. 賛成 2. 賛成しない 1. 全く賛成しない

理由：

12. 正しい英語の発音を身に付けるために、日本人はいつから英語を学び始めるべきだと思いますか。

ア. 早ければ早いほど良い イ. 幼稚園に入る前から ウ. 幼稚園に入ってから
エ. 小学校低学年から オ. 小学校中学年から カ. 小学校高学年から
ク. 何歳でも良い

13. ご自身が中学・高校で受けた英語の発音指導は成功していると思いますか。

4. 大いに成功 3. 成功 2. 成功していない 1. 全く成功していない

- E. 英語の発音で特に苦手とする点、改善したい点があれば自由に書いてください。また、その他頃受けている発音指導に関してご意見があれば書いてください。

ご協力ありがとうございました。

Appendix B

Sheet Used for Research 2:

Narrative and Reading Aloud Tasks Given to the Students for Research 2:

1. 英語で口頭で自己紹介をしてください。その際、次の情報は必ず入れるようにしてください。1分後に講師が合図したら始めてください。

1. 名前
2. 学部、専門
3. 出身地
4. 好きなこと、よくすること（趣味）
5. 夏休みにしてみたいこと、夏休みの予定

2. 次の文をまず黙読してください。30秒後に講師が合図したら音読してください。

Morning Activities

Recently, more people have started to make use of the early morning hours. These people study or do some exercise before going to school or work. Such morning activities refresh people and help them to keep early hours, so they are becoming popular. There are even special clubs or communities for morning activities now.

Appendix D

Slides Used for Research 3:

Slides Distributed to the Experimental Group

スライドを1枚ずつ音読してください。

大きな文字になっているところをなるべく
他のところに比べてなるべく強く長く
読んでみてください。

1.

Today, **mo**re and **mo**re **com**panies
are be**gin**ning **intern**ship **pro**grams.

2.

Students **ap**ply to the **com**pany
of their **choice** and can **ac**tually
work there for about **two** weeks.

3.

These **stu**dents can **learn** about
the **com**pany and the **work** it**self**.

4.

They **think** an **intern**ship is
very **prac**tical.

5.

Companies also **wel**come these
students because they can
con**trib**ute to so**ci**ety.

Appendix E

Assessment Sheet Used for Research 3:

Assessment Sheet for Rating the Students' Phonological Intelligibility

Assessment sheet

Please rate the speaker's overall phonological intelligibility.

Speaker No.1

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.2

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.3

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.4

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.5

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.6

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.7

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.8

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.9

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)

Speaker No.10

	1	2	3	4	5
intelligibility	Not intelligible at all (0%)	Slightly intelligible (25%)	Partly intelligible (50%)	Moderately intelligible (75%)	intelligible (100%)