Improving pronunciation:
Using guided reflective journals

Abstract
Improving pronunciation, in the first instance, needs to be promoted in the classroom where teachers can initiate opportunities for good practice. The use of guided reflective journals is one intervention strategy that may allow both learners and teachers to better position themselves within the context of learning and teaching intelligible pronunciation. This study explores the effectiveness of guided reflective journals to improve intelligibility in a Japanese higher educational context. Based on qualitative and quantitative methods, the paper evaluates changes in speech over the duration of one semester. In particular, students from an experimental group were asked to record their voice at the beginning and at the end of the semester as part of guided reflective journals 1 and 4. Students from a control group were also asked to record their voice. Three native and non-native speaker raters focused on changes in prosodic features, such as stress, intonation and pausing. Segmental features were also considered. Results from this study show that the reflective journals served to direct autonomous learning efforts and motivated the participants from the experimental group to improve more than the control group, especially with regard to word stress, intonation and pausing. While this paper aims to address gaps in the literature and promote the teaching and learning of pronunciation in the classroom, further research is needed to explore the use and benefits of guided reflective journals as an independent learning tool to improve pronunciation.

1. Background
Pronunciation has a serious effect on a speaker’s ability to communicate; it is immediately salient, and can be ‘socially diagnostic’ (Giles and Coupland 1991). Learners with poor pronunciation may be perceived as unsuccessful in their ability to communicate, incompetent, uneducated or lacking in knowledge (Lear 2012b). While learners with good pronunciation are more likely to be understood, even if they make errors in other areas, it is difficult to understand learners whose pronunciation is unintelligible even if their grammar is perfect (Yates 2002). Pronunciation includes
attention to sounds, or the segments including both vowels and consonants, and prosodic features such as intonation, stress, and pausing (Yates 2002). Such features of pronunciation are believed to render a speaker intelligible or can be a threat to the mutual understanding of spoken communication. Swain (1995) identifies four functions of output (or production) needed for successful communication, including: fluency, which is achieved via production and opportunities to develop automatic output; hypothesis-testing, allowing comprehensibility and linguistic features of production to be assessed against feedback from listeners; metalinguistic function, which allows learners to reveal their hypotheses and reflect thereby deepening the learners’ awareness of forms, rules, and form-function relationships if the context of production is communicative in nature; and noticing/triggering function, which allows learners to notice gaps in language output. This can lead to recognition of what learners do not know or only somewhat know. The recognition of problems may prompt learners to change production, which may in turn trigger linguistic development. If learners fail to cognitively process these language skills, the communicative exchange may not be successful. In other words, this process of cognition can encourage learners to discover what they can do and what they cannot do. According to Swain’s Comprehensive Output hypothesis, when forced out of their comfort zone, learners may attempt to solve linguistic challenges by stretching their metalanguage and interlanguage, accessing their own cognitive constructs or “cueing themselves to listen for a solution in future input” (Swain 1995: 127). Benefits from this process may impact on all areas of language learning and acquisition. This study trials the use of guided reflective journals with a group of Japanese learners of English at one Japanese university to improve intelligibility over the duration of one semester. Students are encouraged to set pronunciation goals, identify effective learning strategies to improve language output, monitor and reflect on their progress using an action learning framework. In particular, changes in intelligibility relating to segmental and prosodic features are the focus of this paper.

1.1 Intelligibility

In general, intelligibility is a dynamic and nebulous term, which focuses on what competent and effective speakers do in context (Rajadurai 2004). In line with Field (2005: 401), this paper defines intelligibility as “the extent to which the acoustic and phonetic content of the message is recognisable by a listener”. While there is limited research in the area of intelligibility, a number of studies have made a considerable contribution to the understanding of pronunciation as a vital element in effective communication that affects intelligibility (Jenkins 2000; Munro and Derwing 1995; Nelson 2008; Varonis and Gass 1982). In particular, a study by Derwing, Munro and Morton (2006) showed that intelligibility involves both the speaker and the listener. While the speaker and the listener both have equal responsibility in the communication process, listeners experience difficulty in understanding speech that differs from the L1 patterns of oral production to which they are accustomed.
1.2 A comparison of English and Japanese phonetic inventory

Differences between the Japanese mora-timed language and the English stress-timed system are a major influence on error in Japanese speakers of English as a foreign language (EFL) and may influence production of prosodic features. Research generally shows that for beginning and intermediate Japanese learners of English, distinction difficulties in pronunciation between their native tongue and English lie in the consonants /l/, /r/, /θ/, /w/ and /v/ and consonant clusters. Smith (2005) adds that additional distinctions lie in the consonants /b/, /f/, /h/, and /s/. It is important to note that more advanced learners are able to produce these sounds. In particular, the /l/ and /r/ phonemes, which are usually neutralised in Japanese, do not do so to the degree that they interfere with intelligibility in the case of advanced English learners (Harmer 2007). It may be that focusing on developing these sounds may also improve with the use of reflective journals.

Zielinski (2008) summarises some of the key findings from research and emphasises that English listeners draw on both segmental and prosodic features in the speech signal; consonants, vowels (particularly those in primary stressed syllables) and the rhythmic properties of the speech signal are all important to listeners in the process of identifying a speaker’s intended words. In terms of prosody, stress, intonation and pausing are said to most influence Japanese speakers. Celce-Murcia, Brinton and Goodwin (2007: 131) define stress as “those syllables within an utterance that are longer, louder, and higher in pitch... but in any given stressed syllable this entire combination of features may not be present”. Japanese does not have stress; the Japanese language system naturally marks accent by pitch changes. Unlike the stress-timed rhythm in English, time used to complete an utterance is not dependent on stressed vowels or syllables. Stress is therefore challenging for Japanese speakers of English, particularly as stress influences intelligible speech production and as listeners use stress patterns as an indicator to initiate lexical search (Lear 2012a). If the primary or secondary stress is incorrectly placed, native speakers may process the message as something completely different (Cutler 1984). Intonation is also a complex and important aspect of speech. Changes in the signals of intonation can change the meaning of an utterance even when the same words are used (Curruthers 2006). Intonation is thus strongly influenced by personal interpretation from both the speaker and the listener. The intonation patterns impacting on attitude and grammatical structure are usually experienced as being more difficult to perceive and produce than the segmental differences; however, they also have a significant effect on the intelligibility of speech. Despite intonation in both Japanese and English being similar in their rising and falling patterns (for example, in questions and commands) there remains a reluctance to teach intonation because of the intricacies pertaining to individual interpretation.

In spoken discourse, pausing (or the time intervals where there is temporary inactivity) can also change the meaning of the message. In fact, certain pauses in a stream of speech can have significant meaning variations in the message to be conveyed (Celik 2001). Without chunking and correct pausing, it may be difficult for
listeners to comprehend the meaning of the utterance. Wei and Zhou (2002) found that changes in stress patterns, combined with lack of pausing and little attention to pitch change, can create typical Japanese monotonous intonation contours in English, all of which can impede intelligibility. Wei and Zhou’s study indicates that pausing and other prosodic features of pronunciation are crucial to intelligible speech and provide valuable information for lexical interpretation. Therefore, prosodic features, in addition to segmental features, are important for the production of successful speech patterns, production and perception and intelligibility of speech.

1.3 Guided reflective journals

A reflective journal, or learning log, provides the learner with a personal space to record learning experiences and reflect upon progress and responses to situations, which can be used later to explore and analyse action in context. Learner resistance to reflective journals has been reported in an Asian context, which has been seen as evidence that more communicative, student-centred strategies need prior instruction so that learners can develop the necessary reflective skills to penetrate the traditional pedagogical values that persist (Canagarajah 1993; Goh 1997; Jing 2006; Lear 2012a; Tsang 1999). This study focuses particularly on Japanese learners of EFL, using guided reflective journals, including an action research framework and goal setting strategies to improve intelligibility (cf. Lear 2012b). The constructivist design of the reflective journals encourages linguistic and metacognitive awareness needed to reflect on the learning process (Goh 1997; Jing 2006; Lear 2012a). Such a design assumes that reflective learning and learner autonomy are constructivist student-centred approaches that are not familiar to Japanese learners of EFL, who have been largely influenced by a product- and teacher-oriented approach (Lear 2013a, 2013b).

2. This study

This study uses qualitative and quantitative instruments to evaluate intelligibility of Japanese students after using reflective journals for one semester; it was guided by the following research questions:

1. Are reflective journals an effective intervention strategy to improve the intelligibility of students’ pronunciation in large EFL Japanese classes?
2. Are reflective journals an effective intervention strategy to improve segmental features?
3. Are reflective journals an effective intervention strategy to improve prosodic features such as stress, intonation and pausing?

3. Methodology

3.1 Participants

This study focused on a group of 22 students, 6 males and 16 females, who were studying English at one university in Japan. The participants were from two classes, an
experimental group (from Year 2 of the course, \(n_1=10\)) and a control group (from Year 1, \(n_2=12\)). The experimental group used reflective journals. Although the year levels were different, all the students had learned English for more than six years. Both classes also used the same curriculum and received the same in-class instruction, focusing on pronunciation.

### 3.2 Data instruments

This study is part of a larger study (see Lear 2012b) which used a questionnaire, interviews and reflective journals to triangulate results. This larger study allowed for the effectiveness of reflective journals to be determined and explored the efficacy of reflective journals as autonomous learning tools to improve the intelligibility of pronunciation of EFL learners in large foreign language classes. The current paper focuses on the results from the reflective journals (Reflective Journal 1 and Reflective Journal 4) that include a phonological awareness-raising task used to investigate changes in intelligibility for intermediate-level Japanese learners of English.

#### 3.2.1 Guided reflective journals (Experimental Group)

The participants were required to submit four journals as discrete tasks over the duration of the semester, using key questions to guide the reflective process. Reflective Journal 1 and 4 tasks, the focus of this study, involved recording the students’ speech at the beginning and at the end of the semester and was used to assess changes in intelligibility. After recording their speech, Reflective Journal 1 asked students to evaluate intelligibility of their pronunciation using a 5-point Likert scale format and a single attitudinal response of ‘strongly disagree’ to ‘strongly agree’. Following the self-evaluation, the participants were required to reflect on this phonological awareness-raising task and identify three pronunciation goals, which would become their focus to improve their pronunciation over the duration of the semester. As part of Reflective Journal 4, the participants rerecorded their speech and evaluated their pronunciation using the same process as for Reflective Journal 1. Following their evaluation, the participants reflected on their progress over the duration of the semester and assessed the degree of achievement of their goals and the effectiveness of the strategies they employed to achieve them. Finally, the participants reflected on possible future goals that may guide future learning.

#### 3.2.2 Speech sample (Control Group)

Participants from the control group did not complete the reflective journal tasks as part of their unit assessment. They were, however, asked to record their speech at the beginning and at the end of the semester. The control group evaluated their speech using a Speech Evaluation Sheet (SES), which also included a 5-point Likert scale format requiring a single attitudinal response of ‘strongly disagree’ to ‘strongly agree’ (see Lear 2012b). Data from the control group was used as a baseline against which to establish whether or not the intervention of reflective journals was effective.
That is, results from the speech samples provided evidence to determine whether any differences or changes in intelligibility over the duration of the semester were due to the intervention of the independent variable of the reflective journals in the experimentation group, compared to the control group which did not use reflective journals. Examples of the experimental and control group participants’ pre- and post-test speech samples have been made available at a website not accessible to the public.

### 3.2.3 Speech sample text (Experimental and Control Group)

The speech sample used for the experimental and the control group consisted of a diagnostic reading text, which aimed to assess both segmental and prosodic features. The text therefore incorporated difficult sequences of phonemes of mainly 2-3 syllables. This allowed learners to demonstrate a range of phonological features including stress, intonation and pausing (see Figure 1). The text included a range of sentence structures that required a variety of stress patterns, pausing and intonation to express meaning. The text also included familiar and unfamiliar lexical and phonemic items that Japanese English speakers at an intermediate-level might find challenging. In particular, the evaluation of the speech samples focused on intelligible production of consonants noted as potential and even likely challenges for Japanese learners, stemming from differences in sound inventory, including /b/, /v/, /r/, /l/, /f/, /h/, /s/, /θ/ (Tsujimura 2014).

I’m a doctor and I’m from England. I work in Rwanda with the World Health Organisation. At first, I planned to only stay 6 months. That was three years ago, and I’m still here. We work very hard because there are so many sick people with cholera and malaria especially. The children suffer most because they don’t get enough to eat. But despite all the problems, the refugees give us presents they have made and share their music and culture with us.

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**Figure 1: Pre- and post-test diagnostic reading text (adapted from Peaty 1997)**

### 3.2.4 Speech sample evaluation

This study employed teacher raters who were native and non-native speakers of Australian, American, and Japanese backgrounds. The raters did not receive any formalised training for this purpose. All the raters were selected to evaluate the speech samples according to their availability and interest in the study. In order to achieve consensus and inter-rater reliability, the raters agreed on a shared understanding of intelligibility: ‘speech clarity’ or the proportion of a speaker’s output that a listener can readily understand. A rigorous moderation process was then applied whereby
comparability meetings were conducted. Following the moderation process, the three raters evaluated the participant speech recording using a Speech Evaluation Sheet, which included a Likert 5-point attitudinal scale to establish the listener’s level of agreement with the proposed statements where 1 is ‘strongly disagree’ and 5 is ‘strongly agree’. The design of the evaluation of the speech samples was strongly influenced by Gardner (2004); the phonemic and phonetic items were informed by Tsujimura (2014) and Celce-Murcia et al. (2007).

3.3 Data analysis

Qualitative data from the reflective journals were analysed using thematic content analysis. For the speech evaluations, data were analysed separately for each item and summed statistically to create a score for a group of items that were illustrated in bar charts and scatter plots. Individual phonetic and phonemic improvements in intelligible features of pronunciation were also recorded as quantitative measures, mean scores, frequencies and standard deviation (SD) scores. All statistical tests were interpreted against the standard cut-off point at 5% level of significance or $\alpha = 0.05$ (Johnson and Christensen 2008).

4. Results

4.1 Intelligibility

The phonological awareness-raising tasks in Reflective Journals 1 and 4 provided students with the opportunity to monitor and reflect on their progress over the duration of the semester. Teacher raters also assessed changes in intelligibility of speech. Figure 2 below shows a scatter graph used to determine the correlation between the results from Reflective Journal 1 and Reflective Journal 4 scores for Item 1 (‘This student’s speech is intelligible’). For the scatter plots used in this study, the value of the pre-test (Reflective Journal 1) rating is on the X axis and the value of the post-test (Reflective Journal 4) rating is on the Y axis. A 45° reference or identity line, where the X coordinate and the Y coordinate are the same, is included in the scatter plot. Unless otherwise stated, dots or points that lie on the identity line indicate that there was no change from the pre-test to the post-test. Points above the identity line show that the participant’s speech improved and points below the line show that participant’s speech did not improve over the duration of the semester. The X and Y axis use the reference points SD, D, N, A, SA where ‘SD’ is strongly disagree, ‘D’ is disagree, ‘N’ is neutral, ‘A’ is agree and ‘SA’ is strongly agree. The scatter plots include rater evaluations for all participants, totalling 30 ratings for the experimental group (that is, 10 times 3) and 36 ratings for the control group (that is, 12 times 3). Each point represents one participant rating, unless more than one participant has the same rating (as recommended by Utts 2005). Therefore, numbers next to the dots indicate the total number of ratings allocated to any one coordinate.
Compared to the Reflective Journal 1, results from the speech sample in Reflective Journal 4 showed that the experimental group demonstrated a higher level of intelligibility than the control group. For example, the raters gave neutral ratings at the beginning of the semester indicating that the speech samples from the experimental group were neither intelligible nor unintelligible. At the end of the semester it was agreed that the participants’ speech had improved and was rated as ‘intelligible’. In addition, where raters found the speech samples to be unintelligible at the beginning of the semester, the participants’ speech had improved at the end of the semester and particularly so for one participant. Overall, the results from the scatter plots in Figure 2 suggest that the subjects in the experimental group all improved over the duration of the semester and this was noticeable to the raters. Overall, data from the control group showed that intelligibility had decreased in some instances and the participants received an increase in neutral and lower ratings at the end of the semester.

4.2 Segmental features

Learner difficulties in perception may result in erroneous phonemic production. Where an L2 phoneme is absent from the L1 or where the L2 sound is similar to the L1 we may predict learners to assimilate sounds in the following ways and produce the following errors: the L2 sound is reproduced as the L1 sound; the L2 sound is reproduced as an uncategorisable speech sound; the L2 sound is not reproduced (Lambacher, Martens, Nelson and Berman 2001). In addition, Japanese syllable construction may affect pronunciation of English resulting in the addition of a vowel “to make the word conform to the English pattern” (Avery and Ehrlich 1992: 54).

Table 1 indicates that the control group made greater improvement in phonemic production over the semester. Of the phoneme errors noted for the experimental group participants, 32 phonemic changes were evident at the end of the semester with general improvements in the following sounds: /c/, /p/, /s/, /j/, /l:/, /el/, vowels
and final /d/ and /t/. Only /f/, /l/, /t/, /θ/, /w/ and /v/ remained difficult for the evaluators to decipher at the end of the semester. While the reflective journal does not seem to have impacted greatly on improving these phonemic errors for the experimental group, the reflective journal has been effective in reducing other identified errors such as /c/, /p/, /s/, /j/, /l:/, /eI/, vowels, and final /d/ and /t/. In contrast, the control group largely showed difficulty with /l/, /r/, /θ/, /w/ /g/, /t/, / au/, consonant vowel (CV) combination and the five vowels at the beginning of the semester. Excluding the phoneme /f/, these were the same phonemes for which the experimental group had expressed impaired intelligibility at the end of the semester.

Table 1: Total phonemic errors and improvement

<table>
<thead>
<tr>
<th></th>
<th>Phonemic Errors</th>
<th>Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Start Semester</td>
<td>End Semester</td>
</tr>
<tr>
<td>Experimental Group</td>
<td>91</td>
<td>59</td>
</tr>
<tr>
<td>Control Group</td>
<td>104</td>
<td>64</td>
</tr>
</tbody>
</table>

Results from the raters were also collated and analysed using the paired sample t-test, which show the mean number of errors for both groups at the beginning of the semester (experimental group mean 15.4; control group mean 17) compared to the end of the semester (experimental group mean 12.6; control group mean 5.3). According to Table 2, both groups recorded a significant improvement in phonemic development and intelligibility during the semester.

Table 2: Improvements in segmental features

<table>
<thead>
<tr>
<th></th>
<th>Mean Start Semester</th>
<th>t-value</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>End Semester</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Experimental Group</td>
<td>15.4</td>
<td>12.6</td>
<td>3.184</td>
<td>9</td>
</tr>
<tr>
<td>Control Group</td>
<td>17</td>
<td>5.3</td>
<td>3.094</td>
<td>11</td>
</tr>
</tbody>
</table>

Word-final vowel insertion was not an impediment to intelligibility for the majority of participants from either the experimental group or the control group. With an equal mean rating of 1.7 for the pre-test, the post-test scores showed a mean rating of 1.9 and 1.8 for the experimental and control group, respectively. With regard to the experimental group, vowel insertion and substitutions did not negatively influence intelligibility for the raters at either the beginning or at the end of the semester. One tendency common to the experimental group was the morphological error (or incorrect plural form) where the word ‘months’ was pronounced ‘month-es’. These learners appeared to overgeneralise the rule of plural formation. Further qualitative results from the raters’ evaluation of the speech samples reveal that the pronunciation of words that the raters judged to be new or difficult (such as ‘cholera’ and ‘malaria’
and ‘refugees’) impacted most on intelligibility. These words were considered difficult because of the syllable constituency, prosodic demands and because of phonemes such as /l/ and /iː/. The raters noted that these words were not clearly enunciated and at times were rated as unintelligible by all the raters. These words were also noted as difficult to pronounce by the participants themselves.

4.3 Stress, intonation and pausing

Likert scaled statements from Reflective Journals 1 and 4 were used to evaluate changes in stress, intonation and pausing. Word stress, sentence stress, intonation and pausing all interfered with intelligibility at the beginning of the semester according to the raters. For example, at the beginning of the semester, learners tended to indicate stress primarily through pitch accent rather than duration or longer, louder sounds and higher pitch. At the end of the semester, however, students were showing confidence in producing changes in pitch of a syllable or word and to show contrast and identify content words. In addition, learners were not able to demonstrate correct chunking/phrasing (intonation) and place, number and length of pauses at the beginning of the semester. Changes in stress patterns and lack of pausing resulted at times in the typical Japanese monotonous intonation contours. With attention also on intonation, this improved over the duration of the semester. Results from Reflective Journal 4 showing the mean ratings indicate significant improvement in word stress for both groups but, in particular, for the experimental group ($p=.000$), followed by sentence stress, intonation, and pausing (see Table 3 below).

Table 3: Results for stress, intonation and pausing

<table>
<thead>
<tr>
<th></th>
<th>Experimental Group</th>
<th>Control Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t-value</td>
<td>df</td>
</tr>
<tr>
<td>Word Stress</td>
<td>5.288</td>
<td>29</td>
</tr>
<tr>
<td>Sentence Stress</td>
<td>1.161</td>
<td>29</td>
</tr>
<tr>
<td>Intonation</td>
<td>1.246</td>
<td>29</td>
</tr>
<tr>
<td>Pausing</td>
<td>.902</td>
<td>29</td>
</tr>
</tbody>
</table>

Reflections in the journals also showed that a majority of the participants from the experimental group noted that stress was an important feature of pronunciation. For example, one participant wrote “The most important feature for me is sentence stress. It’s because I want to express what I say more fluently.” Recording the participants’ speech and asking them to reflect on their pronunciation seemed beneficial and this may have contributed to the significant improvement in intelligibility. For example, one participant reflected that “my speech doesn’t contain a stress accent, so it sounds very flatly”. As a result, this student developed a goal to improve stress and became...
motivated to improve this phonological feature. The participants also found stress to be one of the most difficult areas to learn autonomously. This may explain the lower improvement rate for sentence stress. Another participant explained: “Stress, I can’t understand where should stress in a sentence.” The control group showed similar results. One participant stated: “I just feel I can’t pronounce very well...stress and sound.”

Intonation was also recorded as having the greatest improvement over the semester for the experimental group. In contrast, the control group showed no change in intonation at the end of the semester (see Figure 3). Results from the paired sample t-test also confirm that the control group showed no statistical improvement ($p=1.000$). While this may not reflect positively on the classroom activities employed, it does suggest that students can improve their pronunciation independently when motivated by focused goal-setting strategies.

![Chart showing improvements in stress, intonation, and pausing](image)

*Figure 3: Rater assessment of stress, intonation and pausing (Control Group)*

The scatter plots confirm that the majority of the participants received improved intelligibility ratings at the end of the semester, resulting in a majority of dots below the identity line (see Figure 4). While Figure 4 shows the same number of ratings above the identity line, the majority of the ratings for the experimental group are equal to 2 or 3 (*disagree or neutral*) compared to the control group who received higher ratings equivalent to 4 or 5 (*agree or strongly agree* that intonation interferes with intelligibility). With regard to the challenges of English intonation, one participant summarised: “English intonation is very different from that of a Japanese so, I feel it difficult... English has more up downs... I need to improve more pitch up and down.”
There was a slight improvement in pausing recorded over the semester for both groups, with greater improvement recorded for the experimental group. Results show that the experimental group received more improved ratings at the end of the semester. Additional handwritten comments from the raters suggest that the participants from the experimental group overall recorded more natural placement of pauses and “fewer and shorter pauses” (Rater 2 comment). Evidence from the reflective journals correlated to these results. For example, one participant from the Experimental Group wrote about her improvements in the following way: “First, I think pausing is improved. I knew the proper pauses by listening to English news of watching some presentations... Then, I learned when I should pause or where I should stress.”

5. Discussion

5.1 Intelligibility

Results from both quantitative and qualitative data show that the participants from the experimental group gained improved intelligibility in their pronunciation over the duration of one semester after using reflective journals. Further analysis of data shows that the experimental group also improved with regard to segmental and prosodic features.

5.2 Segmental features

Phonological errors remained a predominant factor influencing the intelligibility of the participants for all raters. Phonemes were identified as one factor attributing to reduced interpretability for half of the participants of the experimental group. Interestingly, while both groups improved, the experimental group made less phonological improvements over the semester compared to the control group. This
study agrees that English phonemes not found in the L1 were an initial difficulty in producing intelligible pronunciation; however, with focused effort, reflection and persistence, the students were able to improve in most cases. As the control group also improved, this study cannot attribute the changes over the semester—in particular, improvements in /c/, /p/, /s/, /j/, /i:/, /eI/, vowels and final /d/ and /t/ for the experimental group—solely to the reflective journals. It could be that these learners may have progressed naturally or as a result of the language instruction in class. Ellis (1994) explains that formal language instruction can facilitate natural language development, including increased accuracy. The results from this study may have differed if the experimental group had all focused their pronunciation goals more on segmental features rather than on prosody.

Improvements were also found in vowel insertions. While English includes vowel (V), consonant (C)V, CVC, CCVC, CCVCC and others, the students in this study were inclined to use epenthesis (i.e. a vowel or consonant insertion within an existing string of segments; Celce-Murcia et al. 2007). Curruthers (2006) explains that Japanese syllable constructions do not include consonant clusters; therefore, learners may insert an additional vowel at the end of a word (paragoge) or between consonants. This was common in this study were learners pronounced the words ‘months’ as ‘month-es’. In such cases, the learners were attempting to maintain consistency with their L1 forms.

5.3 Prosodic features

The experimental group showed significant improvement in word stress and intonation. The experimental group also showed a slightly higher mean rating for pausing than the control group. Both groups showed the same improvement in mean value for sentence stress over the semester. The fact that the participants found stress to be challenging may explain the lower improvement rate for sentence stress. Lower ratings for sentence stress is in line with the findings of Nagamine (2002: 378), who states that students may have difficulty with this prosodic feature as not only may they not be able to fully grasp the meaning of the diagnostic passage, but also they do “not have sufficient knowledge of sentence-stress, and... they might not have been taught how to stress English sentences adequately”. Further in-class tasks and activities may have been needed to support autonomous learning in this case. It seems that Watanabe’s (1988: 181) research remains valid in that:

Japanese students, not having been taught how to stress English sentences properly, tend to read or speak English without a proper sense of English rhythm.

As a result, they often stress not only almost every content word but also some function words, regardless of the meaning of the sentence.

While the guided reflective journals motivated greater focus on prosodic features, the participants also continued to struggle with understanding English intonation. The experimental group made greater improvement than the control group in this area; however, five participants from both groups continued to have problems with
this prosodic feature. One reason for this may be because Japanese students are not generally motivated to develop pronunciation autonomously at high school and those who are focus largely on stress and intelligibility (Lear 2013a). Cenoz and Lecumberri (1999: 4) state that errors of intonation can affect intelligibility at the pragmatic level “when the specific context may not help to disambiguate the intended meaning”. The students in this study may have benefited from additional in-class instruction, focusing on intonation in a communicative context at the discourse level, as opposed to isolated sentences. Many participants were also unaware of the importance of pausing and it seems that the intervention strategy of the reflective journals improved their metalinguistic awareness of these phonological features and increased their general understanding of the importance of prosody when communicating. In fact, intonation and pausing showed 100% increase in the number of participants who noted these features as difficult at the end of the semester but did not mention it at the beginning of the semester. These features, including intonation and pausing, continued to emerge as the main areas of discussion. It may be that the goal setting features in Reflective Journal 1 focused their efforts and the action learning process incorporated in the journal design may have caused the learners to monitor their progress and improve over the duration of the semester. These guiding elements, in addition to the reflective element of the journals, seemed to contribute to the linguistic improvements gained over the semester, particularly in relation to prosody.

6. Conclusion

To sum up, while this present research is not a longitudinal study, it can be stated that, although listeners share the responsibility for effective communication and need to adjust to each other receptively and productively in any interaction, overall linguistic proficiency is equally important. Without intelligibility, any accommodative attempts may be fruitless (Jenkins 2000). Results from this study show that overall improvements were made in intelligibility of pronunciation and the experimental group showed significant improvement in word stress, intonation and pausing. The participants from the experimental group focused their learning goals mainly on prosodic, rather than the segmental features and it is possible that this is why no significant improvements were made in segmental features compared to the control group. Further research in this area will confirm whether the results from this study are replicated for a larger sample. Nevertheless, these results indicate that guided reflective journals may be one intervention strategy to support learning and improve pronunciation skills of EFL learners, and the analysis of speech may allow teachers to develop a curriculum that focuses on the individual needs of their learners.

Notes

1. See https://sites.google.com/site/learningenglishinc/.
References


