A PRELIMINARY STUDY OF APPLYING SHADOWING TECHNIQUE TO ENGLISH INTONATION INSTRUCTION*

Kun-Ting Hsieh¹, Da-Hui Dong², and Li-Yi Wang³

¹The University of New South Wales
²Chang Jung Christian University
³National Institute of Education, Singapore

ABSTRACT
The current training techniques on English pronunciation put emphasis on isolated words or sentences, resulting in the lack of opportunities for EFL learners to practice intonation. It has been noted that the importance and necessity of intonation training have been undervalued, and empirical studies on developing second language (L2) intonation pedagogy are urgently needed. This preliminary study aims to find out whether shadowing technique from interpretation practice can be used to promote English intonation acquisition. Fourteen non-English major students from National Taiwan University (NTU) were recruited and divided into control and experimental groups. The result from a SPSS Independent Sample T-test revealed significant differences between the two groups in intonation, fluency, word pronunciation, and overall pronunciation. The paper ends with a discussion on the implication of applying interpreting skills to intonation training and directions for future research.

Keywords: shadowing technique, intonation, pronunciation instruction, EFL

*We would like to give our appreciation to the participants of this study for their generosity and contributions. Also, we would like to thank three reviewers for their insightful comments.
1. INTRODUCTION

The study of pronunciation, with the fall of audiolingualism, has been neglected for a long time since it was believed that native-like pronunciation was merely a utopian goal which can never be achieved by speakers of other languages. Some researchers relocated their research interest in the intelligibility of pronunciation rather than native-like phonics (Derwing & Munro 2009). In the field of language teaching, pronunciation instruction is either put off, undervalued or even forgotten (Celce-Murcia 1996; Gilbert 1994).

Back to the time when audiolingualism, where accuracy outweighed fluency, was still trend-setting (Morley 1991), the ultimate goal of pronunciation training was to eradicate or suppress the L1 accent in L2 (Celce-Murcia 1996; Larsen-Freeman 2000; Lightbown 2006). In the era of audiolingualism, pronunciation was a central component in language teaching and was identified with accurate production of isolated sounds or words (Pennington & Richards 1986). Several techniques and methods for teaching pronunciation were developed at that time, and most of them focused on getting learners to “perceive and to produce distinctions between single sounds (segmentals) in minimal pair drills” (Lightbown & Spada 2006: 104), which largely restricted the domain of pronunciation to the segmental level (Lado 1957). A typical pronunciation class at that time could be described as the one that “gave primary attention to phonemes and their meaningful contrasts, environmental allophonic variations, and combinatorial phonotactic rules, along with structurally based attention to stress, rhythm, and intonation” (Morley 1991: 484-485).

In the mid-1980s, Communicative Language Teaching (CLT) was introduced as a revolutionary L2 teaching school which placed emphasis on L2 teaching using authentic texts, the intelligibility of the language expression, and a more student-centered classroom. Since then, pronunciation and intelligibility have been viewed as important goals of L2 teaching under the framework of CLT (Derwing & Munro 1997; Field 2005; Morley 1991; Munro & Derwing 1999). More emphasis was placed on rhythm, stress, and intonation (suprasegmentals), areas
considered more likely to affect communication (Celce-Murcia et al. 2010; Lightbown & Spada 2006). Arguably, the era of CLT witnessed the shift in instructional focus in teaching pronunciation, where a redirection of priorities to a focus on the critical importance of suprasegmentals and how they were used to communicate meaning in the context of discourse, as well as the importance of vowels and consonants (segmentals) and their combinations. This direction was observed and described by Yule (1989) as the prosodic (or suprasegmental) approach.

Intonation, which is also called pitch sequence, is a well-known phenomenon in oral linguistic production. It conveys grammatical meanings, and learners who can master intonation, are proven to be more proficient in English (Wennerstorm 1998: 4, 20). Given that CLT has been overwhelmingly adopted in Taiwan (Hsieh 2011; Liao 2002, 2006), it is justifiable that English educators should attach more importance to pronunciation training. Wong’s (1993) study shows the connection between pronunciation and listening comprehension, implying that spoken English can only be comprehensible if it follows a certain rhythm and intonation. If a listener has difficulties understanding spoken English, it can be attributed to misinterpretation or unexpected comprehension of rhythm and intonations.

Pronunciation was viewed as an important component of English language teaching curricula since the 1940s. Morley (1991) argues that the question doesn’t lie in ‘whether’, but ‘what’ and ‘how’ pronunciation should be taught. Baker (1992) contends that advanced English learners realize while overall English proficiency can be improved, that it is impossible to eliminate some repeated mistakes and accented pronunciation. Although the pronunciation of adult L2 learners cannot be native-like, it can be improved with constant exposure to L2 (Flege 1988; Flege & Liu 2001; Riney 1998; Trofimovich 2006). Munro and Derwing (2008), for example, observed students with Mandarin and Slavic as their first languages in ESL classes and found that their pronunciation was significantly improved with mere exposure to L2. It denotes that constant exposure to L2, rather than L2 pronunciation instruction, is the main reason leading to intelligible pronunciation.

Where education is concerned, what has been termed as ‘exposure to target language’ requires a constant input and output of the language in
daily life, which is the most ideal learning environment for language
learners. In Taiwan, English is taught as a foreign language for all
tertiary students. Despite the realization that intonation instruction is
essential for language learning, English pronunciation is still not taught
as an independent course for most students who are not English majors.
According to the 2010 statistics from the Ministry of Education (MOE),
among the total 1,240,814 students majoring in various fields in
Taiwan’s tertiary education, only 47,138 (3.79%) were English-related
majors (MOE, 2010). It can therefore be assumed that most of the non-
English major students lack pronunciation training. As the main support
for pronunciation learning is still restricted to the classroom in Taiwan,
general pronunciation instruction for adult learners is also lacking, let
alone advanced pronunciation training for them to obtain an absolutely
native-like pronunciation.

It is worth noting here that despite the critical debate on the
‘ownership’ of English (e.g., Kachru 1992; Widdowson 1994; Jenkins
2006), there is still an “unquestioning submission to native-speaker
norms” in EFL/ESL classrooms (Seidlhofer 2005: 170). In the teaching
of pronunciation, despite the fact that overall intelligibility has become a
primary goal in pronunciation pedagogy since the early 1980s and the
importance of suprasegmentals in determining perceived
comprehensibility or intelligibility of L2 speech has come to be
recognized by many scholars, many EFL/ESL instructors today still tend
to focus on foreign-accent reduction or elimination in instructional
exercises, with a tendency to emphasize lower-level features as discrete
units or segmentals (Nagamine 2002). Arguably, the acquisition of a
native-like accent should no longer be the ultimate target of
pronunciation teaching (Jenkins 1998). Pursuing native-like
pronunciation is difficult to justify in the era of World Englishes (WEs),
when English is used as a lingual franca by individuals with different
first languages and cultural backgrounds in the global community, and
the variety of phonology, lexis, and syntax in English is not seen as
inferiorities (Jenkins 2006). However, the belief in native-speaker norms
is still thoroughly entrenched throughout East Asia, and teachers and
students tend to be horrified by the suggestion that they do not need to
aspire to native-like pronunciation (Deterding 2010; Kirkpatrick 2006).
Hence, it is worthwhile to understand that the whole process of accepting WEs should take place in the presence of its international intelligibility.

2. LITERATURE REVIEW

2.1 The Importance of Teaching Intonation

It has been argued that apart from instruction in pronunciation for isolated words and sentences, more attention needs to be paid to intonation training because learners who have better understanding about prosodic features are shown to be more proficient in English. According to Lin, Fan, and Chen (1995), instead of intonation and rhythm, English learners pay more attention to the sounds (word pronunciation), vocabulary, and grammar when they are listening to English. This is the reason why many English learners complain about the speed of the listening texts being too fast from time to time. Gilbert (1994) contends that intonation allows people to follow the flow of information in spoken English. Researchers have also proven that the instruction of pronunciation should be aimed at suprasegmentals, such as pausing, word stress, and sentence-final intonation (Derwing, Munro & Wiebe 1997; Derwing & Rossiter 2003; Derwing, Munro & Weibe 1998; Hahn 2004). Pickering (2004) and Wennerstorm (2004; 1998) argue that if the speaker can use appropriate intonation structure at the discourse level, recipients will perceive the speaker’s English to be more intelligible. Derwing et al. (1997) also indicate that with the use of intonation structure at the discourse level, not only is intelligibility increased, but learners’ fossilized pronunciation is also found to be improved. Therefore, Wei (2006) suggests that pronunciation instruction should also place emphasis on intonation, stress (word and sentence level stress), and rhythm.
2.2 The Instructional Techniques for Intonation

Scarcella and Oxford (1994) contrasted traditional and research-based approaches for pronunciation instruction and outlined the differences between these two approaches (shown in Table 1).

<table>
<thead>
<tr>
<th>Teacher action</th>
<th>Research-based approach</th>
<th>Traditional approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Focus</td>
<td>The main objective is to teach pronunciation communicatively.</td>
<td>The segments of sounds are taught non-communicatively through the practice of isolated sentences.</td>
</tr>
<tr>
<td>Features</td>
<td>Pronunciation instruction is a series of student-centered drills including self-monitoring skills, self-awareness strategies and self-improving tactics.</td>
<td>Pronunciation instruction is heavily teacher-centered.</td>
</tr>
</tbody>
</table>

Their study shows that there exists a gap between the ‘ideal’ approaches and the actual approaches carried out for intonation instruction in language classrooms. They suggest that the class size, limited time for the courses, and the necessity for teachers to help students pass examinations are the reasons behind this gap.

Scholars, such as Levis (2002; 2004) and Jenkins (2004), suggest that intonation should be taught at the discourse level. Celce-Murcia et al. (1996) further point out that shadowing, together with repetition, mirroring, and imitative conversation techniques (Goodwin 2004), is considered one of the oral teaching methods used for imitating native speakers’ intonation patterns at the discourse level. In practice, shadowing is widely used in the training of Simultaneous Interpretation (SI). Before entering SI training, the trainees are asked to undertake intensive practices of shadowing as the way to understand the rhythm.
Shadowing Technique in English Intonation Instruction

and prosodic features in real speech. The basic skill of shadowing is to follow the utterance produced by Native Speakers (NSs) as closely as possible (Luo, Yamauchi & Minematsu 2010). A major feature of the shadowing technique is that it emphasizes less on repetition because the learners do not have to spend time listening to the whole sentence. However, many learners might find the shadowing technique more challenging attributing to its requirement for capacity and focus on the multi-tasks of listening and speaking. In Taiwan, pronunciation instruction, whether at public schools or cram schools, mostly places emphasis on individual vowels, consonants and isolated sentences. The authors assume that the reason for neglecting shadowing in intonation training is that shadowing is actually a skill which is widely adopted in interpreting training, not in prosodic training. Furthermore, the most widely adopted technique of pronunciation instruction in Taiwan is repetition in which words or sentences are spoken by native speakers, and the learners repeat after what they heard. Nonetheless, it is noted that there is no consensus regarding which of the techniques are the most effective ones in the teaching of intonation (Celce-Murcia et al. 1996).

2.3 The Gaps and the Research Questions

Although the methods for carrying out the techniques of teaching intonation are known to ELT teachers, the experiments on the efficacy of these techniques need to be conducted (Celce-Murcia et al. 1996). It is noteworthy that shadowing seems to be the technique which draws the attention of some scholars in Asia in recent years. Hori (2008) concludes that learners’ speaking and listening can be improved if shadowing technique is implemented in pronunciation instruction. It has been proven that shadowing is not only helpful, but also evaluative and measurable (Luo, Qiao, Minematsu, Yamauchi & Hirose 2009; Luo et al. 2009; 2010). In a more recent study, it is found that students’ English proficiency based on the results of their TOEIC scores correlated with the fluency of their shadowing recordings. Some participants paid attention to the segmental phoneme features of the text, others focused on the content of the text but forgot the prosodic utterances, and vice versa (2009). It is argued that the learner understanding of the text would
affect shadowing performance. In another recent study, researchers implemented two types of scores on the participants in order to prove that the more the learners understand the content of the text, the more intelligible their shadowed utterances are (2010). Some language experts were invited to evaluate the intelligibility of the learners’ shadowing recordings. The major difference between the present study and these two recent studies (Luo et al. 2009; 2010) lies in applying the shadowing technique to EFL learners with Mandarin background so as to decide if their intonation is improved at the word or sentence level. Considering the real learning situation, in which the assistance provided by English native speakers is insufficient to EFL learners in Taiwan, the present study evaluates the learner performance with and without receiving training in the shadowing technique.

The following research questions are addressed in this study:
1. Can the shadowing technique be as applicable as the repetition technique in terms of learner pronunciation at the word and sentence levels?
2. Amongst the variables of word pronunciation, fluency, and intonation, which holds the most obvious significance?

3. RESEARCH METHOD

3.1 Participants, Materials, and Data Collection

A total of 14 non-English major students voluntarily participated in this research in a hope of improving their pronunciation through a new teaching method. All the participants were required to attend an English course at National Taiwan University (NTU) in which shadowing technique was used in teaching. Permission was sought from all the participants to use their scores retrieved from an on-line pronunciation program to determine if the shadowing technique could be helpful in Taiwan’s context. The materials were continuous texts from the lessons of MyET, an on-line program for English pronunciation, for which license was purchased by NTU. In this study, our focus was the
application of the shadowing technique to English pronunciation training because the EFL students are not native speakers (NSs) and an evaluation of the intelligibility of their spoken English is beyond the scope of this study. This study aimed to achieve a more effective training for self-learning pronunciation. Four continuous texts with the recordings conducted by NSs (Devlin, 2009; Osment, 2009a, 2009b; Stopps, 2009) were chosen from MyET. The texts were retrieved from Studio Classroom Magazine which contained materials suitable for learners with intermediate to high intermediate levels of English proficiency.

3.2 MyET

With the advancement of science and technology, computer-aided pronunciation (CAP) has been adopted in pronunciation instruction. My English Tutor (MyET) is a pronunciation program which owns a big market share in Taiwan. There are 52 colleges and 18 senior high schools subscribing to their services for enhancing English education in the school. The computer program can offer immediate feedback to learners for reviewing their pronunciation accuracy in terms of vowels, consonants, and overall intonation via comparison with recordings from NESTs (Native English Speaking Teachers). At NTU, the school administration widely adopts the pronunciation program, MyET, as one of the resources for students to carry out self-study for spoken English. In order to maximize the potential of this program, NTU has integrated MyET into its English curriculum. Many English teachers at NTU assign lessons in MyET as required or optional assignments. There are many computers at NTU equipped with MyET for those who want to conduct oral practice. Unlike what Pennington (1999) pointed out that most CAP programs focus on segmentals instead of suprasegmental ones, MyET contains plenty of opportunities for the practice of continuous texts with recordings from NSs and consists of four categories for assessing learners’ overall pronunciation performance—volume, intonation, speed, and fluency. It indicates that intonation and fluency, which are considered two of the most significant global features, have been noted to be helpful for increasing the intelligibility of the English spoken by
non-native English speakers (NNSs) in Taiwan and are integrated into CAP instruction as suggested by Hardison (2004) and Pennington (2000).

3.3 The Teaching of Shadowing in Pronunciation Lessons

The fourteen participants were randomly and equally assigned into two groups: the control and the experimental. The two groups were then given a pre-test on MyET. Two weeks after the pre-test, for the control group, no further shadowing instructions were given, and the participants practiced the assigned lessons on MyET by the traditional repetition techniques. On the other hand, an 8-hour shadowing instruction session was conducted for the experimental group by the instructor. In order to maximize the potential of the shadowing technique in intonation instruction, the instructor showed some texts which were rated at the same difficulty to the participants in the experimental group in the practice of shadowing technique. A post-test was conducted at the end of the semester. In both pre- and post-tests each participant was given 4 texts and each group produced 28 audio files for analyses.

4. ANALYSIS AND RESULTS

In this section, the analysis process and variables are explained. The results of mean score analysis and Independent Sample t-test from SPSS 13.0 are elaborated.

Unlike studies done by Wennerstorm (1998) and Shen (1990), the present study did not focus on the patterns of intonation produced by NSs or NNSs. The comparison of high or low pitch on the variables listed in the table 2 below between NSs and NNSs was not carried out. Moreover, the efficacy of applying shadowing technique to pronunciation training was the main focus in this study. The analysis was based on sentences instead of words. Mean score analysis and Independent Sample t-test were carried out with the scores obtained from MyET program in order to understand if the learners’ intonation and other aspects of pronunciation, which contain global features, were improved. The scores in word pronunciation, fluency, and intonation in
both the control and experimental groups were compared so as to further understand which parts, at word or sentence level, improved significantly.

Thirdly, the variables of the present study, which were pronunciation (at word level), fluency, intonation, and overall performance, were adopted from MyET. In previous studies (Tanner 2009; Wennerstorm 1994), experiments have been carried out to depict the prosodic patterns of EFL participants’ shadowing recordings and comparing them with English native speakers’ patterns. The present study focused on understanding if there were possibilities that the shadowing technique could be implemented effectively, leading to EFL learners’ intonation improvement. Although the variables this study focused on were from MyET program, the contents were matched to global features, such as function word, content word, phrasal boundary, and sentence-final intonation in Wennerstorm’s (1994) study. As pointed out in section 3, the ‘intonation’ refers to the pitch, stress, and rhythm differences at the sentence level; therefore, the variables of fluency and intonation in MyET are relevant to the ideas of ‘intonation’.
<table>
<thead>
<tr>
<th>Variables in Wennerstorm’s study (1994)</th>
<th>Contents</th>
<th>Variables in present study</th>
<th>Contents</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Function words</strong></td>
<td>articles, prepositions, auxiliary verbs, and linking verbs [is, am, are, was, were, seem, feel, has/have/had been]</td>
<td>Overall</td>
<td>The average scores of categories in the following</td>
</tr>
<tr>
<td><strong>Content words</strong></td>
<td>nouns, adjectives, main verbs, and adverbs</td>
<td>Pronunciation</td>
<td>Pronunciation at word level</td>
</tr>
<tr>
<td><strong>Phrasal boundaries</strong></td>
<td>intonation used at the end of a phrase</td>
<td>Fluency</td>
<td>Stress and rhythm at sentence level</td>
</tr>
<tr>
<td><strong>Sentence-final</strong></td>
<td>intonation used at the end of a sentence</td>
<td>Intonation</td>
<td>Pitches at sentence level</td>
</tr>
</tbody>
</table>

Answers to research question 1: *Can the shadowing technique be as applicable as the repetition technique in terms of learners’ pronunciation at the word and sentence level?*

The results of the pre-test (see tables 3 and 4) show no significant differences between the control and experimental groups in any of the four aspects of pronunciation.
Table 3. Means between the control and experimental groups in pre-test

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>28</td>
<td>68.2227</td>
<td>11.78358</td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>68.2873</td>
<td>11.20295</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>68.1364</td>
<td>10.52316</td>
</tr>
<tr>
<td>Pronunciation</td>
<td>28</td>
<td>68.4875</td>
<td>10.03079</td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>68.1364</td>
<td>10.52316</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>68.4875</td>
<td>10.03079</td>
</tr>
<tr>
<td>Fluency</td>
<td>28</td>
<td>71.5232</td>
<td>12.85352</td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>71.2725</td>
<td>11.90911</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>71.5232</td>
<td>12.85352</td>
</tr>
<tr>
<td>Intonation</td>
<td>28</td>
<td>65.0084</td>
<td>11.97405</td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>65.1021</td>
<td>11.66895</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>65.0084</td>
<td>11.97405</td>
</tr>
</tbody>
</table>

Table 4. Independent Samples t-Test of Pre-test

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>Sig.</th>
<th>t</th>
<th>df</th>
<th>Sig. (2-tailed)</th>
<th>Mean Differences</th>
<th>Std. Error Differences</th>
<th>95% Confidence Interval of the Difference Lower</th>
<th>Upper</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>9.654</td>
<td>0.035</td>
<td>0.065</td>
<td>54</td>
<td>0.45</td>
<td>-0.0646</td>
<td>0.58063</td>
<td>2.37868</td>
<td>7.776</td>
</tr>
</tbody>
</table>

In order to find out whether the students improved their pronunciation after shadowing techniques were introduced, we conducted a post-test for both groups. As shown in table 5, improvements were made after the application of the shadowing technique in pronunciation. The average score differences between the two groups in pronunciation, fluency, and intonation were approximately 8, 9, and 9 points respectively. The overall score of the experimental group was above that of the control group by almost 9 points. Therefore, this indicates that the shadowing skill can be applied to EFL learners’ pronunciation training at both the word and sentence levels. The improvements at word and sentence levels were very similar (intonation improved by 9 points and word pronunciation increased by 8 points), and these improvements appear to have contributed to the overall improvement.
Table 5. Means between the control and experimental groups in post-test

<table>
<thead>
<tr>
<th>Group Statistics</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>69.2832</td>
<td>10.34330</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>78.3411</td>
<td>3.34463</td>
</tr>
<tr>
<td>Pronunciation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>68.5236</td>
<td>11.45441</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>76.6696</td>
<td>6.03079</td>
</tr>
<tr>
<td>Fluency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>72.5232</td>
<td>12.00556</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>82.3375</td>
<td>7.80952</td>
</tr>
<tr>
<td>Intonation</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>control</td>
<td>28</td>
<td>66.8046</td>
<td>11.54845</td>
</tr>
<tr>
<td>experimental</td>
<td>28</td>
<td>75.8525</td>
<td>7.74685</td>
</tr>
</tbody>
</table>

Answers to research question 2: Amongst the variables of word pronunciation, fluency, and intonation, which holds the most obvious significance?

An independent sample t-test was carried out to test the significance of differences between the two groups. Table 6 shows that the p values of ‘overall’, ‘pronunciation’, ‘fluency’, and ‘intonation’ were less than 0.05 (0.000, 0.002, 0.001, and 0.001 respectively). It has been noticed that the F scores for overall and pronunciation are significant, meaning that the variances are significantly great for these two measures. Therefore the t-values in ‘Equal variances not assumed’ were used for these two measures. This result indicates significant differences between the control and experimental group in terms of applying shadowing and repetition techniques to pronunciation instruction. Since the experimental group performed better than the control group in all four aspects of pronunciation measured in this study (as shown in Table 6), the result of our independent sample t-test concludes that the experimental groups performed significantly better than the control group.

Compared with the results shown in Table 3, it is obvious that the standard deviations of the students in the experimental group have improved in all four measures (Table 5). This may indicate that the general performance of the students in the experimental group has become more stable than that of the students in the control group. However, the variances between students in overall performance and
pronunciation (Std. Deviation in table 5 and F scores in table 6) are still significant (Sig. =0.08 and 0.043 in table 6). This suggests that the overall performance and pronunciation of some students in both groups may vary from time to time, and that special attention needs to be paid to these two aspects in teaching.

Table 6. Independent Samples t-test of Post-test

<table>
<thead>
<tr>
<th></th>
<th>Independent Samples Test</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Levene Test for Equality of Variances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>p</td>
<td>Sig.</td>
<td></td>
<td>df</td>
<td>f</td>
<td>MeanDiff</td>
<td>t</td>
<td>p</td>
<td>t</td>
</tr>
<tr>
<td></td>
<td>Equal measures used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Overall</td>
<td>Equal measures used</td>
<td>4.571</td>
<td>0.00</td>
<td>54.949</td>
<td>0.004</td>
<td>-3.1674</td>
<td>2.0548</td>
<td>0.036</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>Equal measures used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pronunciation</td>
<td>Equal measures used</td>
<td>4.285</td>
<td>0.04</td>
<td>-3.119</td>
<td>0.023</td>
<td>-3.9406</td>
<td>3.4488</td>
<td>0.003</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td>Equal measures used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fluency</td>
<td>Equal measures used</td>
<td>1.133</td>
<td>0.225</td>
<td>-3.266</td>
<td>0.003</td>
<td>-3.9426</td>
<td>2.0003</td>
<td>0.036</td>
<td>0.038</td>
</tr>
<tr>
<td></td>
<td>Equal measures used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intonation</td>
<td>Equal measures used</td>
<td>5.074</td>
<td>0.056</td>
<td>-3.211</td>
<td>0.003</td>
<td>-3.2111</td>
<td>2.0501</td>
<td>0.036</td>
<td>0.042</td>
</tr>
<tr>
<td></td>
<td>Equal measures used</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5. CONCLUSION

In the last part of this study, the implications from the results of the analysis, research limitations, and suggestions for future studies will be discussed. First, shadowing helps learners adapt to the flow of English sentences. The experimental group in this study performed better than the control group after trying out the shadowing technique. As shown in the results, the improvement in pronunciation, fluency, and intonation have all contributed to a better overall performance. It can be argued that repetition, the most widely adopted technique in pronunciation instruction in Taiwan, is not the most effective training method as shadowing technique application to intonation training opened a new possibility. The main difference between repetition and shadowing-aided instruction is that the former requires more short-term memory than the latter. The repetition technique, to some extent, might distract learners from paying attention to reproduction since much of the
attention was diverted by the memorization of the pronunciation at both
the word and sentence levels and the reading of texts. The shadowing
technique, on the other hand, enabled the participants to get used to the
flow of the sentences without wasting effort on short-term memory and
text reading. Second, the shadowing technique contributed to better
overall pronunciation performance than the repetition technique, which
denotes that the use of the shadowing technique in pronunciation
instruction is effective, but neglected. During the process of data
organization, the participants in the experimental group spent more time on
understanding their tempo of shadowing the source recordings. After a
few rounds of practice, most participants realized the importance of
dividing sentences into phrases and got used to the mechanism of the
shadowing technique quickly. The finding suggests that more time
should be allocated to practicing pronunciation techniques when
designing an English curriculum. In particular, most English learners in
Taiwan have no native English speakers to depend on in English learning.
Compared to other skills in English language learning, pronunciation
deserves more attention from English educators.

The research limitations lie in the number of participants, analysis
unit, and material. The data collection was carried out two months before
the end of the semester, and given the time constraints, only 14
participants were invited to this study, making it difficult to generalize
the results. As the nature of this study was only exploratory, and the
number of research subjects in this study was not sufficient for further
analysis of each variable, such as a multiple regression analysis, we
would recommend a multiple regression analysis to be conducted in
future research. In addition, the participants were asked to
simultaneously mimic the way how NSs speak in four continuous texts.
Therefore, the analyses were sentence-based instead of participant-based.
Future studies can involve more participants so as to develop an
understanding of the efficacy of the shadowing technique on different
learners with different learning backgrounds and styles. As for materials,
considering that the language proficiency of the participants was at the
intermediate level in the GEPT (General English Proficiency Test), all
the texts were retrieved from Studio Classroom, which is an English
learning magazine with a big market share in Taiwan. In future studies,
materials can be more varied and authentic, such as speeches from *Vital Speeches of the Days*, which are authentic English speeches. Finally, the shadowing technique is proven to be effective and helpful in pronunciation instruction. More studies should be devoted to other relevant topics in which translating or interpreting skills are applied to ELT, such as the efficacy of using back translation in students’ English writing practice and the adoption of note-taking skills from consecutive interpretation for specifically depicting the weaknesses of learners’ listening comprehension.
REFERENCES


Kun-Ting Hsieh, Da-Hui Dong, and Li-Yi Wang


Morley, Joan. 1991. The pronunciation component in teaching English to speakers of other languages. *TESOL Quarterly* 25.3: 481-520.


Osment, Pamela. 2009a, June. Small changes equal big results: You can make positive changes in just a few minutes a day. *Studio Classroom*: 22.


62
Shadowing Technique in English Intonation Instruction


Kun-Ting Hsieh, Da-Hui Dong, and Li-Yi Wang


Kun-Ting Hsieh
*School of Education (TESOL)*
*The University of New South Wales*
*High St.*
*Sydney, NSW 2052, Australia*
khsieh@student.unsw.edu.au

Da-Hui Dong
*Department of Translation and Interpretation Studies*
*Chang Jung Christian University*
*No. 1, Changrong University Rd., Gueiren Dist.*
*Tainan City 71101, Taiwan, ROC*
dongdahui@mail.cjcu.edu.tw

Li-Yi Wang
*Office of Education Research*
*National Institute of Education*
*1 Nanyang Walk*
*Singapore 637616*
liyi.wang@nie.edu.sg
Shadowing Technique in English Intonation Instruction

口譯跟述技巧運用於英語語調教學之初探研究

謝昆廷 1  董大暉 2  王力億 3
澳洲新南威爾斯大學 1
臺灣長榮大學 2
新加坡國立教育學院 3

現今英語發音的訓練技巧著重於單字與單句，造成英語為外語之學習者(EFL)缺乏機會練習語調。語調訓練的重要性與必須性遭到低估，由此可見發展第二語言語調教學法的迫切性。此篇研究透過 14 位台灣大學非英語系的大四學生為實驗對象，分別分為控制與實驗組進行測試，目的在於了解口譯中的跟述技巧(shadowing skill)可否促進英語語調的學習。SPSS 獨立樣本 t 檢定的結果顯示兩組中在語調、流暢度、單字發音、與整體發音的均數上呈現顯著。根據實驗結果，本研究在結論部分指出運用口譯技巧於英語語調教學的含義，同時亦提出給未來相關研究的相關建議。

關鍵字：跟述、英語語調、英語教學