The Effects of Three Different Teaching Methods On EFL Intermediate Listeners

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Abstract

In most listening classes, students are tested, but they are rarely taught ‘how to listen’. This situation has remained the same in Japan since at least the 1970s. Therefore, this study examines effective teaching methods for English as a Foreign Language (EFL) listeners and determines whether students’ listening comprehension improves after they learn ‘how to listen’. The participants included 165 Japanese intermediate listeners divided into four groups: 38 in the control group (CG), 52 in the dictation training group (DTG), 46 in the listening strategy training group (LSTG) and 29 in the dictation and listening strategy group (D + LSTG). For 13 weeks, 30-minute weekly instructions were conducted for the DTG and LSTG while 60-minute instructions were conducted for the D + LSTG. Post-data reveal that dictation training is more effective than listening strategy training, although both are significant; however, the combination (dictation and listening strategy training) is ineffective.

1. Introduction

For more than four decades, English as a Foreign Language (EFL) listening\(^1\) classes in Japan have remained relatively the same. For example, in the late 1970s, when I was a junior high school student, our English teacher frequently told the class to ‘listen carefully’ and ‘listen many times’. However, no matter how carefully or how many times we listened, it was still difficult to comprehend the texts. In addition, the teacher neglected to show where and why our comprehension went wrong or what should subsequently be done. Instead, the teacher

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\(^1\) In this study, ‘listening’ refers to understanding spoken English in a non-collaborative situation and interpreting the speaker’s utterances.
simply presented the answers along with the audio script. Currently, I teach EFL listening classes at a university in Japan, and at the beginning of every academic year, I ask my students whether they understand the concepts of scanning and skimming, which are basic listening strategies.² Only one or two students in each class are aware of such strategies. Thus, it is apparent that the situation has remained unchanged for almost 40 years; that is, learners are tested and exposed to listening, but not taught ‘how to listen’. Mendelsohn (1995, pp. 132–133) highlights that second language/foreign language teachers have limited confidence regarding how to teach their students to listen.

So, if learners are taught listening strategies or ‘how to listen’, then would their listening comprehension in EFL improve? Some studies have answered ‘yes’ to this question (Rubin, 1994; Cross, 2009; Graham, Santos and Vanderplank, 2011), whereas others have been ‘sceptical’ (Field, 2008; Lynch, 2009). However, these studies contained significant variations and ambiguities and employed only a limited number of standardised tests for classification purposes. Thus, before discussing these results, it is important to address how the participants were classified in these studies.

2. Purpose

The present study investigates the effects of three different teaching methods—dictation training, listening strategy training and combined training of dictation and listening strategy—on intermediate learners in Japan within the framework of applied linguistics and cognitive psychology with a standardised test. For this study, the listening parts of the Test of English for International Communication® (TOEIC®) are used as the standardised test since it is an international, popular and relatively easy to access test. Intermediate learners in this study are defined as those whose TOEIC® listening scores lie between 166 and 330 (the maximum attainable TOEIC® listening score is 495).

² In this study, the term ‘listening strategies’ represents listeners’ conscious intention to manage incoming oral speech, especially when listeners know that they must compensate for incomplete input or partial understanding (Rost, 2002).
Intermediate learners are targeted in this study for two reasons. Firstly, there is a lack of studies regarding the listening strategies of intermediate EFL learners. Previous listening strategy studies have focused on listeners mainly at two competency levels in order to reveal how skilled listeners outperform their less-skilled counterparts (DeFilippis, 1980; Murphy, 1987; O’Malley, Chamot and Küpper, 1989; Rost and Ross, 1991; Moreira, 1996; Vandergrift, 1997; Goh, 2000; Shirono, 2002; Ueda, 2005; Graham, Santos and Vanderplank, 2008; Vandergrift and Tafaghodtari, 2010). However, unlike advanced learners, intermediate listeners may not have attained the skill level to effectively apply the results of these studies, which do not specifically focus on intermediate listeners. Therefore, studies that directly focus on effective instructional strategies for intermediate listeners are necessary.

Secondly, the majority of EFL learners in Japan are at the intermediate level, which I have realised through teaching EFL listening classes at a Japanese university. For instance, since 2011, at the beginning of every academic year, I administer the listening parts of the TOEIC® to my students in order to survey their level of listening comprehension. The results show that the population of intermediate learners comprised 91% (148 of 163 students) in 2011, 90% (116 of 129 students) in 2012, 99% (115 of 116 students) in 2013 and 99% (115 of 116 students) in 2014. From a macro perspective, I also examined the population of intermediate learners in the TOEIC® official report. Figure 1 shows that this phenomenon not only occurs at the university I teach at but also at the majority of universities in Japan (e.g. the average TOEIC® listening score of university students in Japan in 2011 was 304). In addition, this phenomenon is observed not only amongst Japanese university students but also amongst all Japanese learners of English, as evidenced in Figure 2 (e.g. 68.1% of test takers were categorised as intermediate learners on the listening parts). This phenomenon of the majority of Japanese learners of English being at the intermediate level was not an isolated occurrence in 2011. As shown in Figure 3, the average TOEIC® listening scores in 2010, 2011 and 2012 were 258, 257 and 256, respectively, each of which falls within the 166–330 range, or the intermediate level.

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3 In Japan, the beginning of the academic year is in April.
Figure 1. Average TOEIC® listening scores of Japanese university students in 2011.

Figure 2. Japanese intermediate-level in the TOEIC® listening scores in 2011.
Therefore, the results of this study can be highly practical and beneficial for many Japanese intermediate learners of English. For these two reasons, this study explores effective teaching methods in EFL listening for Japanese intermediate learners.

3. Literature Review

3.1 Controlled and automatic human information processing

Schneider and Shiffrin (1977) propose that learning includes two types of cognitive processing: controlled and automatic human information processing. Controlled processing involves a sequence of cognitive activities under active control which draw the conscious attention of the subject. Conversely, automatic processing includes a sequence of cognitive activities that automatically occur without active control and generally without conscious

Figure 3. Average TOEIC® listening scores of Japanese university students in 2010, 2011 and 2012.
attention. This theory is supported by numerous studies (Lynch, 1998; Goh, 2000; Buck, 2001; Anderson, 2010). Buck (2001) adeptly illustrates both types of processing by comparing them to the scenario of learning to drive a car. In this regard, initially, the entire learning process is controlled, thus requiring conscious attention to every action. After more experience, certain parts of the process become relatively automatic and are performed subconsciously. Eventually, the entire process becomes automatic to the extent that, under normal circumstances, one has the ability to drive a car well and without much thought. Figure 4 demonstrates the hierarchical model of controlled and automatic human information processing, following Schneider and Shiffrin (1977).

![Figure 4. Hierarchical model of controlled and automatic human information processing in Schneider and Shiffrin (1977).](image)

Based on this theory, dictation in listening is categorised as controlled processing (bottom-up processing) since it involves phonemic decoding, which requires conscious attention to phonemes, the smallest segments of sound (Ladefoged, 1982). In contrast, from a listening strategy perspective, identification of individual words is regarded as automatic processing (top-down processing) because it can only be possible after phonemic decoding occurs automatically without active control and conscious attention. Thus, the less automatic an activity becomes, the more time and cognitive energy it requires. In this regard, when learners take more time in phonemic decoding, their overall comprehension suffers. This situation is similar to the idiom of missing the forest for the trees. The following section introduces a theory used in the field of language learning which includes a similar concept.

3.2 Cognitive psychology theory
Anderson (2010) claims that language learning involves certain steps and proposes a cognitive framework of language comprehension based on perception, parsing and utilisation. Although these three phases are interrelated, recursive and possibly concurrent, they differ from one another. At the lowest cognitive level of listening, perception is the encoding of acoustic input that involves extracting phonemes from a continuous stream of speech. The next level is parsing in which words are transformed into a mental representation of the combined meaning of the words. This occurs when a listener segments an utterance according to syntactic structures or meaning cues. According to Anderson (2010), people use the syntactic cues of word order and inflection to interpret a sentence (ibid., p. 366). Thus, when a sentence is presented both with and without a major constituent boundary, it is more difficult to comprehend the latter form. For example, Graff and Torrey (1966) present the importance of identifying constituent structure as follows:

<table>
<thead>
<tr>
<th>Form A</th>
<th>Form B</th>
</tr>
</thead>
<tbody>
<tr>
<td>During World War II</td>
<td>During World War</td>
</tr>
<tr>
<td>even fantastic schemes</td>
<td>II even fantastic</td>
</tr>
<tr>
<td>received consideration</td>
<td>schemes received</td>
</tr>
<tr>
<td>if they gave promise</td>
<td>consideration if they gave</td>
</tr>
<tr>
<td>of shortcoming the conflict.</td>
<td>promise of shortcoming the conflict.</td>
</tr>
</tbody>
</table>

The participants in his study showed better comprehension of passages in Form A, which consisted of correct syntactic structures. Such passages or segments with correct syntactic structures are then recombined to generate a meaningful representation of the original sequence. Finally, at the highest level, utilisation, a listener may draw upon various types of inferences to complete an interpretation and use mental representation to respond to a speaker. Figure 5 demonstrates the hierarchical model of the cognitive psychology theory in Anderson (2010).
Based on Anderson’s theory, O’Malley et al. (1989) conducted a milestone study on listening strategy with 11 Hispanic intermediate students. They revealed that the mental processes of the students in listening comprehension actually parallel Anderson’s (2010) cognitive psychology theory in four ways: 1) the students were ‘listening for larger chunks, shifting their attention to individual words only when there was a breakdown in comprehension’; 2) they utilised both top-down and bottom-up processing strategies, whereas ineffective listeners repeatedly attempted to determine the meanings of individual words; 3) the students were adept at constructing meaningful sentences from the input received, even though the meaning slightly differed from that of the actual text and 4) they applied their knowledge in three areas: world knowledge, personal knowledge and self-questioning.

Goh (2000) also supports the importance of a cognitive framework in understanding learners’ listening difficulties, because it specifies the point at which comprehension breaks down during cognitive processing. In turn, this knowledge makes it possible to trace the source of learners’ listening difficulties and equips teachers with the skills to guide them towards overcoming such obstacles.

The theories of Schneider and Shiffrin (1977) and Anderson (2010) have commonalities in that both involve gradual steps in human information processing as well as language processing.

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4 The first edition was published in 1980.
learning. In the next section, I argue whether listening strategies improve learners’ listening comprehension.

3.3 Listening strategies: Do they improve learners’ listening comprehension?

Before arguing whether listening strategies improve learners’ listening comprehension, I briefly introduce the differences between more- and less-proficient listeners from the viewpoint of EFL listening strategies. DeFilippis (1980) investigated listening strategies in French by focusing on 26 second-language listeners who were equally divided into two groups (13 skilled and 13 less-skilled). Using the listening portion of a standardised test, he compared the listening strategies of both groups and found that skilled and less-skilled second-language listeners used different types of listening strategies. For example, skilled listeners reported an automatic flow of the auditory stimulus and applied keywords, inferences and grammar strategies, whereas less-skilled listeners used keywords and translation strategies as well as contextual inferences. He also reported that skilled listeners utilised five times more visualisation, three times more French–English cognates and two times more role identification compared with their less-skilled counterparts. As seen in Table 1, Berne (2004) summarises the differences between more- and less-proficient listeners. According to her, the idea that differences in EFL listening strategies depend on listening abilities and proficiency is not debatable.

Table 1 Differences between more- and less-proficient listeners (Berne, 2004, p. 525).

<table>
<thead>
<tr>
<th>More-Proficient Listeners</th>
<th>Less-Proficient Listeners</th>
</tr>
</thead>
<tbody>
<tr>
<td>use strategies more often</td>
<td>process input word by word</td>
</tr>
<tr>
<td>use a wide range of strategies</td>
<td>rely heavily on translation/keyword as strategies</td>
</tr>
<tr>
<td>use strategies interactively</td>
<td>are negatively affected by linguistic and attentional constraints</td>
</tr>
<tr>
<td>are concerned with the overall rhetorical organization of text</td>
<td>are concerned with definitions/pronunciation of words</td>
</tr>
<tr>
<td>are better able to:</td>
<td>make fewer inferences/elaborations</td>
</tr>
<tr>
<td>attend to larger chunks of input</td>
<td>do not verify their assumptions</td>
</tr>
<tr>
<td>monitor/redirect attention</td>
<td>do not relate what they hear to previous experiences</td>
</tr>
<tr>
<td>grasp overall meaning of input</td>
<td></td>
</tr>
<tr>
<td>relate what they hear to previous experiences</td>
<td></td>
</tr>
<tr>
<td>guess meanings of words</td>
<td></td>
</tr>
<tr>
<td>use existing linguistic knowledge to aid comprehension</td>
<td></td>
</tr>
</tbody>
</table>

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5 The Modern Language Association Cooperative Foreign Language Test.
Then, the following question arises: If listening strategies used by more proficient listeners are taught to less proficient listeners, then do they improve learners’ listening comprehension? As mentioned in the introduction, some studies have answered ‘yes’ to this question, whereas others are ‘sceptical’.

Graham, Santos and Vanderplank (2008) claim that strategy development is related to proficiency issues. They investigated the development of the listening proficiency and strategic behaviour of 15 lower-intermediate learners of French in England for six months with two methods: recall protocols and strategy elicitation. Firstly, the participants listened to two different audio recordings of the same topic and wrote (in English) everything that they understood. Then, they listened to four different texts and answered multiple-choice questions in English for strategy elicitation and to capture their usual approach to listening. They verbalised their method of comprehending the text and answering the questions, as fully as possible. The six-month study confirmed that the use of metacognitive strategies increases with higher listening proficiency and that inference and reliance on prior knowledge become less prominent as learners’ listening proficiency increases. These results match the studies of Graham et al. (2008), Vogley (1995) and Vandergrift (1997; 1998). Rost and Wilson (2013, p. 244) also claim that it is advantageous to teach listening strategies either directly (i.e. naming and demonstrating the strategy) or indirectly (i.e. coaching students on the ways to improve their listening without naming them).

Baleghizadeh and Rahimi (2011) confirm the relationship between metacognitive strategy use and listening test performance through their study of 82 Iranian EFL university students based on three instruments: the Metacognitive Awareness Listening Questionnaire,® the Academic Motivation Scale and the listening section of the Test of English as a Foreign Language® (TOEFL®). In addition, they found a statistically significant and positive correlation between metacognitive strategy use and listening performance. Thus, since metacognitive listening strategies improve the listening performance of students, metacognitive knowledge is linked to listening ability (Baleghizadeh and Rahimi, 2011, p. 66).

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6 Questionnaire designed by Vandergrift, Goh, Mareschal and Tafaghodtari (2006).
In 1996, the teachability and effectiveness of explicit strategies instruction was first questioned by Tudor (1996). He argued that ‘it would be misleading to assume that these strategies can be neatly pedagogised and “taught” to learners in a straightforward manner.’ (ibid., p. 39). Field (1998) also claimed that it has not been conclusively demonstrated that this type of strategy training is effective and that attempts to teach strategies one at a time based on the analysis-synthesis principle have not necessarily led to greater overall listening competence. Field (ibid., p. 115) questioned the findings of Rubin (1994) and Chamot (1995) in which only two out of their 12 studies showed that improvement had occurred. Two years later, Field (2000, p. 32) raised the following question for researchers in the United States: Can we actually teach the strategies that a learner needs in order to handle gaps in understanding? He claimed that the research evidence on listening is less than conclusive and if strategies (such as monitoring one’s own understanding, identifying keywords and predicting text context) are taught separately, then learners may show improvement in their handling of the individual strategy, but not necessarily improve overall as listeners. Interestingly, he pointed out that no matter how good learners become at using a certain strategy, they will have difficulty combining it with other strategies and using it to meet the demands of a particular listening task. His overall point is in line with the theories of both Schneider and Shiffrin (1977) and Anderson (2010) in which there are gradual steps in human information processing and language learning. In other words, people cannot deal with complicated tasks in their entirety right from the start. The next section discusses one way to approach and tackle the question of whether listening strategies improve learners’ EFL listening comprehension.

3.4 Lack of a standardised test to measure participants’ proficiency and compare the results

This section explores the importance of standardised language proficiency tests, which are still the subject of wide-ranging debate among researchers. In this paper, standardised tests are defined as any language proficiency tests that are reliable, international, popular and relatively easy to access. Such tests are crucial for two reasons: to define participants’ proficiency levels before an experiment and to evaluate the effect of an experiment objectively and scientifically. Regarding the first reason, the majority of previous studies on listening strategy have compared more- and less-successful listeners because the gap between the two groups is prominent and the differences are easy to compare. However,
few standardised tests were used to determine the proficiency level of the participants before experiments were conducted. In addition, researchers’ classifications of learners as more- or less-proficient listeners vary significantly across studies and, as mentioned above, the lack of a standardised measure of listening proficiency can diminish the overall generalisability of the findings since it cannot ensure that each study measures the same parameters. The studies that do not utilise a standardised test to measure participants’ proficiency and compare the results can be divided into four types: 1) a study without any standardised tests; 2) a study with a test which does not measure listening comprehension but other skills such as reading and mathematical skills; 3) a study with a local/minor test and 4) a study with a standardised test but no description/definition regarding the participants’ classification.

For example, no standardised test was used in the following studies: Fujiwara (1990), Bacon (1992), Laviosa (1992), Goh (1997, 2000), Vandergrift (2003), Zang and Goh (2006), Graham, Santos and Vanderplank (2008, 2011), Graham and Macaro (2008), Cross (2009, 2010) and Vandergrift and Tafaghodtari (2010). Rubin, Quinn and Enos (1988) employed the California Assessment Program in their study. However, it was a test of reading, writing and basic mathematical skills and not a test to assess listening comprehension. Thomson and Rubin (1996) used the speaking ability section from the American Council on The Teaching of Foreign Languages. Vogly (1995), Ozeki (2000), Shirono (2002), Carrier (2003) and Suzuki (2009) used some tests, but they were not standardised tests. Thus, it is almost impossible to scientifically and objectively compare the participants’ comprehension levels and research results. Chang (2008) used the TOEIC® to define the participants’ proficiency levels, but did not mention the basis of the definitions.

Without the use of a standardised test, those categorised as more-successful listeners in one study might be considered as intermediate in another while those categorised as intermediate in one study might be classified as less successful in another. For example, although O’Malley et al.’s study (1989) is one of the first experimental studies on language learning strategies instruction that compared more- and less-effective listeners, the number of participants therein was only 11 and no standardised test was used to define their competence in English prior to the experiment. In addition, the participants’ proficiency levels are defined by a mere school district placement test. There are additional studies in
which tests have not been used to assess the proficiency level of the participants before the experiment and even if a test has been used, in most cases, it is too minor or too local to provide objective information about participants’ comprehension levels.

In order to encourage the use of standardised tests, they must be easily accessible outside the designated district and be either low-cost or free. Moreover, the scores of standardised tests must be convertible to those of international tests such as the TOEFL® or TOEIC®. If participants’ comprehension levels before an experiment are not determined objectively through standardised tests, then the results of the study cannot be considered as objective.

Furthermore, even when employing a standardised test, Rubin (1994) proposed that the division of groups or participants should be clearly described: ‘Although DeFilippis (1980) used a standard instrument, the rationale for selecting the point where she divided the group is not clear’ (ibid., p. 212). Rubin defines successful listeners as ‘those who report the greatest frequency, variety, and sophistication of language learning strategies’ (ibid.). However, the range of successful learners varies depending on the instructor, and participants can be categorised differently across studies. Therefore, it is essential that every study should utilise an independent measure of success.

The second important reason for employing standardised tests is that it would be difficult to compare the results with those of other studies without such tests and regardless of how many studies are conducted, EFL listening would not progress sufficiently. Rubin (1994) expressed that ‘most of the research results are based on listening comprehension measures that have not been standardised, making it difficult to compare results’ (ibid., p. 199) and ‘most studies use either teacher judgment, course level, or performance on a nonstandard test’ (ibid., p. 206). In addition, she states that studies that do not utilise standardised tests cannot provide firm conclusions, and comparisons can be problematic for determining proficiency. Rubin’s point is supported by Mendelsohn (1995) who stated that ‘… there is a need for diagnostic tests to assess learners’ proficiency levels’ (ibid., p. 137). Furthermore, Berne (2004) addressed the importance of defining the categorisation of participants:

The lack of a common, standardized measure of listening proficiency across these studies is problematic in that it may diminish the generalizability of the findings ....

Thus, we cannot be sure that each of these studies is measuring the same thing.
when assessing listening proficiency. In addition, listening comprehension performance may vary according to the task used to assess it (Berne, 1993). Therefore, in order to enhance the generalizability of their findings, researchers may want to consider adopting a common set of well-tested, objective criteria for assessing listening proficiency ... (ibid., p. 523)

As introduced above, a standardised test is essential for enhancing the credibility of a study’s findings. In this study, the listening parts of the TOEIC® are adopted as an objective measure for assessing the participants’ listening proficiency before/after the experiments as well as the experimental results.

4. Experiment I

4.1 Hypothesis

H1: For intermediate listeners, dictation training is more effective than listening strategy training.

As stated earlier, Schneider and Shiffrin (1977) proposed two types of cognitive processing: controlled and automatic human information processing. Dictation is considered to be controlled processing (bottom-up processing) since they are related to phonemic decoding. In this study, dictation refers to the act of listening to a sentence or a very short passage and writing it down. Since they listen only to a sentence or a very short passage, the relevance of their grammatical knowledge or background context is minimal. Listeners utilise only acoustic information to interpret spoken words and phrases.

Conversely, listening strategies are regarded as automatic processing (top-down processing) because it is difficult to achieve the required capacity for employing listening strategies unless the identification of individual words becomes automatic. Therefore, intermediate
listeners in Experiment I may find dictation training more adequate since there are gradual steps in both human information processing and language learning.

According to Anderson’s (2010) cognitive psychology theory, parsing is the second stage after perception in which ‘words are transformed into a mental representation of the combined meaning of the words’. In addition, parsing only occurs when a listener segments an utterance according to syntactic structures or meaning cues. Thus, Experiment I postulates that dictation training is more effective than listening strategy training for intermediate listeners.

4.2 Participants

The participants in Experiment I consisted of 108 first-year students (in the Faculty of Economics) at a Japanese private university who were administered the listening parts of the TOEIC® in April 2012. None of the participants’ major subject was English and the classes were part of the regular English curriculum. The participants were divided into three groups: 10 in the control group (CG), which was part of the general English class; 52 in the dictation training group (DTG), with half of them belonging to the EFL listening class and the other half belonging to the EFL reading class and 46 in the listening strategy training group (LSTG), which was part of the EFL reading class. All of the lessons were presented in English, as per the policy of the faculty. Initially there were more participants, but only those who attended all 15 classes between April and July 2012 were selected for the experiment.

4.3 Materials

For the DTG, materials consisted of sections regarding various patterns of reductions and contractions based on a textbook by Rost and Stratton (2001) (for more details, see Appendix A and B). For the LSTG, materials were designed by the present author to aid in the acquisition of various types of cognitive and metacognitive strategies (for more details, see Appendix C and D).

4.4 Procedure

In Week 1 of the first term in 2012, 108 participants were selected based on their TOEIC® listening scores (between 166 and 330). From Weeks 2 to 14, both the DTG and LSTG
participants were trained for 30 minutes\(^7\) (with instructions in Japanese) as part of the 90-minute regular class. The DTG participants were first informed about what they were going to learn, after which they listened to the relevant parts of the CD attached to the textbook. Then, they filled in the appropriate answers on the provided hand-outs, which were created by the present author based on the textbook’s exercise page. After providing the answers, the participants viewed them while listening to the CD for a second time in order to combine their written words/phrases with the acoustic information. Finally, the participants listened to the CD a third time without looking at the answers to comprehend the words/phrases purely through the acoustic information.

The LSTG participants were first instructed on the logical aspects of the relevant listening strategies for that lesson. Then, they performed listening tasks that involved applying the instructed listening strategies, after which they provided answers and pertinent feedback.

In Week 15, the participants answered the listening parts of TOEIC\(^\circ\). Although this test was identical to that from Week 1, they were not provided with the answers of the initial test and were not informed that the same test would be used in Week 15. This guaranteed the test’s validity and allowed us to compare the scores obtained in Weeks 1 and 15.

4. 5 Results

4.5.1 Pre- and post-mean scores for the CG, DTG and LSTG

Figures 6 and Table 2 show the pre- and post-mean scores for the CG, DTG and LSTG.

\(^7\) Due to the inflexible class syllabus, only 30 minutes were allowed for the experiment.
Figure 6. Pre- and post-means TOEIC® listening scores for three groups.

Table 2 Mean, SD and relative values for the CG, DTG and LSTG in Weeks 1 and 15.

<table>
<thead>
<tr>
<th></th>
<th>Week 1</th>
<th></th>
<th>Week 15</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>CG</td>
<td>10</td>
<td>214.5</td>
<td>41.66</td>
<td>220</td>
</tr>
<tr>
<td>DTG</td>
<td>52</td>
<td>230.19</td>
<td>28.9</td>
<td>253.46</td>
</tr>
<tr>
<td>LSTG</td>
<td>46</td>
<td>241.3</td>
<td>32.41</td>
<td>263.26</td>
</tr>
</tbody>
</table>

4.5.2 ANOVA

A two-way analysis of variance (ANOVA) and Ryan’s Method were conducted in accordance with the null hypothesis. The findings show that dictation training is more effective than listening strategy training and that both training methods are significantly effective for intermediate listeners.
4.6 Discussion

The results illustrated in Figures 8–12 above are discussed in the following order:

1. Pre- and post-data for the CG, DTG and LSTG;

2. Two-way ANOVA;

3. Percentage of the DTG and LSTG participants whose scores increased in Week 15;

4. Percentage of the DTG and LSTG participants whose scores decreased in Week 15 and a scatter plot.

Although the participants of the CG only received regular lessons for 13 weeks, there was some improvement in their listening comprehension (see Figure 6). This confirms that
listening comprehension can improve without any particular training, although the level of improvement is not prominent and the process is significantly time consuming. Conversely, both the DTG and LSTG showed sharp increases, thus demonstrating that both dictation training and listening strategy training are effective for intermediate listeners under certain conditions (in this case, 30 minutes a week for 13 weeks).

As shown in Table 2, in Week 1, the mean scores of the pre-test of the CG, DTG and LSTG were 214.5, 230.19 and 241.3, respectively, whereas in Week 15, the scores were 220, 253.46 and 263.26, respectively. In order to compare this data as the relative value, the mean scores of each group in Week 1 were treated as 1.00 and they were compared with those in Week 15. The relative values of the CG, DTG and LSTG were 1.03, 1.1 and 1.09, respectively. The LSTG had the highest mean score in Week 1, but the most prominent improvement was observed in the DTG, although there was no significant difference between the two groups. This indicates that dictation training may be more suitable than listening strategy training for intermediate learners. If so, this assumption does not contradict the theories of both Schneider and Shiffrin (1977) and Anderson (2010). Nation and Newton (2009) also support the importance of bottom-up processes such as dictation training in listening: ‘learners need to be proficient with these bottom-up processes and ... learners can benefit from being taught how to listen’ (ibid., p. 41).

Next, this data is analysed from a different point of view. In this regard, a two-way ANOVA was conducted focusing on two factors: teaching methods before/after the experiment and observed significance in both teaching methods before/after the experiment (see Table 3). Thus, Ryan’s Method, which is one of multiple comparison methods, was utilised for further analysis. The results revealed significance between the CG and DTG as well as between the CG and LSTG, although no significance was found between the DTG and LSTG. In this case, what should be noticed is that listening strategy training is also significantly effective for intermediate listeners. Although this result seems to contradict the theories of Schneider and Shiffrin (1977) and Anderson (2010), the results of Experiment I support the research results of Graham et al. (2008), Vogley (1995), Vandergrift (1997; 1998) and Baleghizadeh and Rahimi (2011), who all claim that strategy development seems to be related to proficiency issues. At this point, there is a possibility that the range of TOEIC® listening scores (between 166 and 330) in Experiment I might be too wide for a certain pattern or
tendency. Therefore, for further analysis, the score range of 166–330 was sub-divided into two ranges: 166–249 and 250–330.

Figure 7 depicts the percentage of the DTG participants whose scores increased in Week 15. Amongst them, 86% (32 out of 37) scored 249 or less on the TOEIC® listening parts in Week 1. Similarly, the same feature was observed in the LSTG. Figure 10 shows the percentage of the LSTG participants whose scores increased in Week 15. Amongst them, 59% (19 out of 32) scored 249 or less on the TOEIC® listening parts in Week 1. The possible reason for this phenomenon could be that the TOEIC® listening score of 250 might be a type of borderline between perception and parsing, following Anderson’s (2010) theory. Moreover, this assumption concedes with the theory of Schneider and Shiffrin (1977). The 14% of the DTG participants (5 out of 37) who obtained the TOEIC® listening scores of 250 or more in Week 1 (see Figure 9) might have overcome the level of perception, the lowest level in Anderson’s (2010) cognitive psychology theory. Thus, basic phonetic perception training such as dictation training might no longer be effective for those who have passed the level of perception. This assumption is also supported by the data of the LSTG.

![Figure 7. Percentage of the DTG participants whose scores increased in Week 15.](image)

Figure 8 exhibits the percentage of the LSTG whose scores increased in Week 15. For example, in Week 15, 59% (19 out of 32) of the LSTG increased their scores, yet it was a lower percentage compared with that of the DTG. This result might be considered as evidence of what Schneider and Shiffrin (1977) and Anderson (2010) claim in their theories: human information processing and language acquisition involve gradual steps. According to Schneider and Shiffrin’s (1977) theory, those with the TOEIC® listening scores of less than 250 in Week 1 might have not passed the stage of controlled processing. As per Anderson’s
those with the TOEIC® listening scores of less than 250 in Week 1 might remain at the lowest level (perception), thus implying an overload of listening strategy training. Unless phonetic perception is automatically processed, there is almost no capacity to activate adequate listening strategies for listening tasks. In addition, this implies that those who scored more than 250 in Week 1 might have already acquired certain listening strategies and automatically applied them, despite not being as fluent and automatic as their skilled counterparts. Thus, listening strategy training might not be as effective as dictation training for intermediate listeners.

![Figure 8. Percentage of the LSTG participants whose scores increased in Week 15.](image)

![Figure 9. Scatter plot of Experiment I.](image)
In order to analyse whether there is a significance between the participants who scored ‘less than 250’ and ‘250 or more’ in the DTG and LSTG, respectively, a two-way ANOVA was conducted and significance was observed in the DTG but not in the LSTG (see Tables 5 and 6). The scatter plot (see Figure 9) indicates no regular pattern in the results of Experiment I. A closer examination of the scatter plot reveals that some participants in the CG increased their scores in Week 15, whereas many participants in the DTG and LSTG decreased their scores in the same week. These results indicate the complexity of the elements and factors related to improving listening comprehension.

5. Experiment II

5.1 Hypothesis

H1: The synergistic effect of dictation training and listening strategy training is ineffective for intermediate listeners.

When the results of Experiment I were presented at the 48th Annual Meeting of the British Association of Applied Linguistics in Southampton, England, Professor Suzanne Graham from Reading University kindly suggested investigating the synergistic effect of dictation training and listening strategy training because both methods were found to be significantly effective when individually applied to intermediate listeners. However, simultaneously applying both approaches would be too demanding for intermediate listeners. Therefore, Experiment II posits that synergistic instruction of both dictation training and listening strategy training would be ineffective.

5.2 Participants

The participants in Experiment II consisted of 57 first-year students (Faculty of Economics) at a Japanese private university who obtained the TOEIC® listening scores between 166 and 330. The same listening parts of the TOEIC® as in Experiment I were used to select the participants of Experiment II. The participants received four 90-minute English lessons per week in reading, writing, listening and computer-assisted language learning. Initially, there were more participants, but only those who attended all 15 classes between April and July 2013 were chosen for Experiment II. The participants were divided into two groups: 28 in the CG and 29 in the dictation and listening strategy training group (D+LSTG). The CG
participants belonged to two separate EFL reading classes while the D+LSTG participants were split between two classes: a general EFL class and an English presentation class. All of the classes were part of the regular English curriculum and none of the participants’ major subject was English.

5.3 Materials and procedure

The same materials and procedures in Experiment I were used for Experiment II. For the CG, the listening parts of the TOEIC® were administered in Week 1 in order to select the participants. The participants in the two separate EFL reading classes received lessons based on the class textbook from Weeks 2 to 14. All of the lessons were presented in English, as per the policy of the faculty. Furthermore, for credibility, the same listening parts of the TOEIC® were also administered in Week 15, but the answers of the initial test were not provided and none of the participants were informed of this procedure.

For the D+LSTG, the same listening parts of the TOEIC® were administered in Week 1 to select the participants for Experiment II. From Weeks 2 to 14, a combined 60-minute training (both dictation training and listening strategy training for 30 minutes each, with instruction in Japanese) with the same materials from Experiment I was conducted during the 90-minute lessons for 13 weeks.

5.4 Results

5.4.1 Pre-and post-mean scores for the CG and D+LSTG

Figure 10 and Table 5 show the pre- and post-data based on the TOEIC® listening scores for the CG and D+LSTG.
Figure 10. Pre- and post-means TOEIC® listening scores for the CG and D+LSTG.

Table 5 The result of two-way ANOVA of the effect of dictation training between those who scored less than 250 and 250 or more on the listening parts of the TOEIC® in Week 1 in Experiment I.

<table>
<thead>
<tr>
<th>Source</th>
<th>SS</th>
<th>df</th>
<th>MS</th>
<th>F</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>A: More &amp; Less than 250[S(A)]</td>
<td>25308.01</td>
<td>1</td>
<td>25308.01</td>
<td>23.030</td>
<td>0.0000</td>
</tr>
<tr>
<td>Error[S(A)]</td>
<td>54944.87</td>
<td>50</td>
<td>1098.90</td>
<td></td>
<td></td>
</tr>
<tr>
<td>B: Before &amp; After</td>
<td>4692.63</td>
<td>1</td>
<td>4692.63</td>
<td>8.52</td>
<td>0.0052</td>
</tr>
<tr>
<td>Error[BS(A)]</td>
<td>27529.49</td>
<td>50</td>
<td>550.59</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

5.4.2 ANOVA

A two-way ANOVA was conducted in accordance with the null hypothesis. The findings show that the combined teaching method was insignificant.

Table 6 Simple main effect of dictation training between those who scored less than 250 and 250 or more on the listening parts of the TOEIC® in Week 1 in Experiment I.
5.5 Discussion

The results depicted in Figures 10–13 are discussed in the following order:

1. Pre- and post-data for the CG and D+LSTG;

2. Two-way ANOVA;

3. Percentage of the D+LSTG participants whose scores increased and decreased in Week 15 and a scatter plot.

Although the participants of the CG only received regular lessons for 13 weeks, there was an improvement in their listening comprehension. The TOEIC® listening scores in Week 15 reflected almost identical increases when compared with the scores of the CG participants (see Figure 10). In fact, they actually improved as much as the D+LSTG participants who received dictation training and listening strategy training for 60 minutes a week for 13 weeks.

At this point, let us observe more concrete data. As shown in Table 5, the mean pre-test scores of the CG and D+LSTG were 246.96 and 257.24, respectively, in Week 1 (see Table 7) while their mean post-test scores in Week 15 were 260.36 and 271.90, respectively. In order to compare this data as the relative value, the mean scores of each group in Week 1 were treated as 1.00 and they were compared with those in Week 15. Moreover, the relative values of the CG and D+LSTG were 1.054 and 1.057, respectively. This demonstrates that the combined training was far too demanding for intermediate listeners, although both types of training were effective when they were applied separately. Thus, it is possible that the intermediate learners in this study may not have reached the level of utilisation or automatic processing, as stipulated in Anderson’s theory (2010).
As previously observed in regard to listening (based on Anderson’s theory), when the capacity used for perception in a single listening activity increases, the capacity available for utilisation decreases. Furthermore, when perception requires more time and cognitive energy, comprehension is greatly affected. In other words, the majority of participants in Experiment II have not reached the level at which a sequence of cognitive activities (English listening comprehension) can automatically occur without conscious attention and active control, as stipulated in the theory of Schneider and Shiffrin (1977). Thus, this result is consistent with Schneider and Shiffrin’s (1977) and Anderson’s (2010) claims that human information processing and language acquisition involve gradual steps.

Next, this data is analysed from a different perspective. A two-way ANOVA was conducted focusing on teaching methods before/after the experiment. The results reveal that there was no significance in teaching methods. Although no significance was observed, this result does not contradict the theories of Schneider and Shiffrin (1977) and Anderson (2010). As discussed in Experiment I, both dictation training and listening strategy training are significantly effective when they are applied separately. However, when these two types of trainings are combined and instructed simultaneously, this type of training seems to be too demanding for intermediate listeners, thus resulting in an almost identical progress of the CG participants in Experiment II. For further analysis, the TOEIC® listening score range of 166–330 was sub-divided into two ranges: 166–249 and 250–330.

Table 7 Means, SD and relative values for the CG and D+LSTG in Weeks 1 and 15 in Experiment II.

<table>
<thead>
<tr>
<th></th>
<th>Week 1</th>
<th></th>
<th>Week 15</th>
<th></th>
<th>Relative Value</th>
<th>Mean of difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td></td>
</tr>
<tr>
<td>CG</td>
<td>28</td>
<td>246.96</td>
<td>32.58</td>
<td>260.36</td>
<td>39.49</td>
<td>1.054</td>
</tr>
<tr>
<td>D+LSTG</td>
<td>29</td>
<td>257.24</td>
<td>39.29</td>
<td>271.90</td>
<td>39.94</td>
<td>1.057</td>
</tr>
</tbody>
</table>

Table 8 Results of two-way ANOVA of Experiment II.
Figure 11 illustrates the percentage of the D+LSTG participants whose scores increased in Week 15. Amongst them, 50% (10 out of 20) scored less than 250 on the TOEIC® listening parts in Week 1. Although no significance between the CG and D+LSTG was observed, 50% of the D+LSTG participants whose scores were 250 or more on the TOEIC® listening parts in Week 1 increased their scores in Week 15. For them, the combined training was effective. However, the remaining half decreased their scores in Week 15. In order to determine the possible reason for this phenomenon, the D+LSTG participants whose scores decreased in Week 15 were the subject of focus. These participants were again divided into two categories: those who scored ‘250 or less’ and ‘250 or more’ on the TOEIC® listening parts in Week 1. Figure 12 shows that 88% of the D+LSTG participants (7 out of 8) who achieved the TOEIC® scores of 250 or more in Week 1 decreased their scores in Week 15. For further analysis, a one-way ANOVA was conducted focusing only on one factor: teaching method. However, the result shows no significance.

![Figure 11. Percentage of the D+LSTG participants whose scores increased in Week 15.](image-url)
Figure 12. Percentage of the D+LSTG participants whose scores decreased in Week 15.

At this point, it is clear that the majority of the D+LSTG participants who scored more than 250 on the TOEIC® listening parts in Week 1 decreased their scores in Week 15. As per Anderson’s (2010) theory, those with the TOEIC® listening scores of more than 250 in Week 1 might have reached the second level: parsing. Yet, unless both phonetic perception and parsing are automatically processed, there is almost no capacity to activate adequate listening strategies for listening tasks. Thus, combined training might have been too demanding for intermediate listeners. The scatter plot (see Figure 13) correspondingly indicates no regular pattern in the results of Experiment II, which explains the absence of statistical significance.
Figure 13. Scatter plot of Experiment II.

A closer examination of the scatter plot reveals that some participants in the CG increased their scores in Week 15, whereas many participants in the D+LSTG decreased their scores in the same week. These results indicate the complexity of the elements and factors related to improving listening comprehension.

6. Conclusion

Experiment I revealed that both dictation training and listening strategy training are significantly effective, and that dictation training is more suitable than listening strategy training for intermediate listeners when these trainings were given for 30 minutes for 13 weeks in their mother tongue. To be more precise, when the learners' scores are less than 250 in the TOEIC® listening parts, dictation training is effective with 86% probability and listening strategy is effective with 59% probability. Although no significance was observed for scores of ‘less than 250’ and ‘250 or more’ in the TOEIC® listening parts, it would be extremely beneficial if instructors could teach appropriate teaching methods in EFL listening based on the level of the learners.

In Experiment II, when these two methods were combined and instructed under the same conditions, except for the length of each training (30 minutes in Experiment I and 60 minutes in Experiment II), it proved ineffective for intermediate listeners. All of the results are in accordance with the theories of Schneider and Shiffrin (1977) and Anderson (2010) in which there are gradual steps in both human information processing and language acquisition.

There were three overall limitations in this study. Firstly, since a limited number of participants were employed, future studies can examine a larger number of participants as well as include interviews and/or the Metacognitive Awareness Listening Questionnaire in Weeks 1 and 15 in order to obtain better insight into effective teaching methods for Japanese intermediate EFL listeners. Secondly, the participants in this study consisted of only Japanese learners of English. Thus, a research on whether the results of this study could be applied to learners of other languages should be considered. Finally, this study strongly focused on the importance of standardised tests for precise and objective measurement in
the level of listening comprehension before/after any experiment in accordance with the proposals of Rubin (1994) and Berne (2004). Both learners and we, the instructors, need to know what we are measuring scientifically and objectively, so that the first significant action is to employ a standardised test to measure the level of listening comprehension before and after any experiment. As a result, the results that are obtained can enable researchers to compare the findings with other research results and reach effective conclusions.

As Goh (2000) proposed, the first step in strategy training is to realise the target: particular problems that learners face in listening comprehension. Without knowing where comprehension breaks down and why, instructors can simply end up saying phrases such as ‘listen carefully’ and ‘listen many times’. Therefore, in EFL listening comprehension, it is important to recognise where the comprehension breaks down, its causes and the possible solutions. If every researcher in the field of EFL listening understands the importance of standardised tests and utilises one in their studies, it could be possible to reach teaching goals more quickly and effectively. As Nation and Newton (2009) pointed out, ‘listening is not a single skill, but a variety of sub-skills’ (ibid., p. 40), and the present author is in total agreement with them. In addition, this author imagines listening comprehension as a complicated series of woven fabrics that need to be interlaced in a manner that saves both time and money. Therefore, the aim of this study is to find a more effective way to learn/teach EFL listening comprehension for both learners and instructors. I strongly believe that the more awareness there is regarding the importance of standardised tests in the field of EFL listening, the more effectively instructors can deal with the problems and teach ‘how to listen’, instead of simply saying ‘listen carefully’ and ‘listen many times’.
References


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Rost, M. (2002). *Teaching and researching listening.* Harlow: Longman.


Appendix A: Contents of the Dictation Training Procedure

Week 2
Lesson 1: Reduction of ‘and/or’
Lesson 2: Reduction of ‘to/for/of’

Week 3
Lesson 3: Contraction of ‘be-verbs’
Lesson 4: Contraction of ‘will’

Week 4
Lesson 5: Contraction of ‘have/has’
Lesson 6: Contraction of ‘would’

Week 5
Lesson 7: Contraction of ‘had/had better’
Lesson 8: Contraction of ‘not’

Week 6
Lesson 9: Reduction of ‘h’ in words beginning with h
Lesson 10: Reduction of ‘them/him’

Week 7
Lesson 11: Reduction of ‘-ing’
Lesson 12: Reduction of ‘(be) going to/want to/have to’

Week 8
Lesson 13: Reduction of ‘be-verbs’ in interrogative sentences
Lesson 14: Reduction of ‘be-verbs’ in Wh-questions

Week 9
Lesson 15: Reduction of ‘don’t/doesn’t/didn’t’ in affirmative sentences
Lesson 16: Reduction of ‘Do/Does’ in interrogative sentences

Week 10
Lesson 17: Reduction of ‘Did’ in interrogative sentences
Lesson 18: Reduction of ‘do/does’ in Wh-questions

Week 11
Lesson 19: Reduction of ‘did’ in Wh-questions
Lesson 20: Reduction of ‘Do/Does/Did’ in negative interrogative sentences

Week 12
Lesson 21: Reduction of ‘Have/Has’ in interrogative sentences
Lesson 22: Reduction of ‘have/has’ in affirmative sentences

Week 13  Lesson 23: Reduction of auxiliary verbs in interrogative sentences

Lesson 24: Reduction of auxiliary verb and ‘have/has/had + past participles’ in affirmative sentences

Week 14  Lesson 25: Omission of ‘Do/Does/Did/be-verbs’ in interrogative sentences
Appendix B: An Example of the Dictation Training

Week 2  Lesson 1: Reduction of ‘and/or’

Listen to the CD and write the missing words.

1. John and I are good friends.

2. Come and see me whenever you have time.

3. John and I are going to visit Edinburgh.

4. Come and seen me anytime.

5. To go or to eat here?

6. Peter or John will be with us.

7. He and I are leaving now.

8. Sit down and fill out this form.

9. John or Bill will help you in a moment.

10. Have you seen John and Mary?

11. Come over about 2 or 3 o’clock.

12. The postman left a letter and a package for you.

13. Do you need a stamp and an envelope?

14. I will take a train or a bus to Baltimore.

Appendix C: Contents of the Listening Strategy Training Procedure
Week 2 ● Content words ● Function words

Week 3 ● Working memory ● Note-taking strategy

Weeks 4 & 5 ● Inferential ability

Week 6 ● Discourse markers

Week 7 ● Background knowledge

Week 8 ● Inference: power of a title + background knowledge

Week 9 ● Vocabulary/Visual information

Weeks 10 & 11 ● Scanning

Weeks 12 & 13 ● Skimming

Week 14 ● Monitoring one’s comprehension

**Appendix D: An Excerpt of the Listening Strategy Training**

Week 8 ● Inference: power of a title + background knowledge
<Exercise>

Write the summary of the short story that you are going to listen.

----------------------------------------------------------

<Titles>

For Group A: A prisoner plans his escape

For Group B: A wrestler in a tight corner

----------------------------------------------------------

<Script>

Rocky slowly got up from the mat, planning his escape, he hesitated a moment and thought. Things were not going well, what bothered him almost was being held, especially since the charge against him had been weak. He considered his present situation. The lock that held him was strong, but he thought he could break it.

(Anderson, Reynolds, Schallert and Goetz, 1977, p.10)