

Teaching Consecutive Interpretation Note-Taking Strategies to Improve Taiwanese Senior High School Students' English Listening Comprehension

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This study examined the effects of a consecutive interpretation note-taking strategy (hereafter abbreviated as the CINT) on Taiwanese senior high school students' EFL listening comprehension. Seventy students from two classes of a senior high school in central Taiwan participated in the experiment. One class served as the experimental group (n = 35), and the other as the control group (n = 35). The experiment lasted for ten weeks and utilized TOEIC listening tests, CINT hand-outs, and pre-experiment and post-experiment questionnaires. The ANOVA results revealed that, on average, the experimental group showed significantly greater improvement in listening comprehension than the control group, which meant that CINT instruction was beneficial in boosting students' listening proficiency. In general, subjects' qualitative responses corresponded to their quantitative results. Two pedagogical implications were noted. First, CINT instruction should be incorporated into the curriculum to upgrade students' listening proficiency. Second, CINT could help learners stay focused and serve as an external memory aid, but it may not be able to overcome the limitations of the listener's insufficient vocabulary and the speaker's rapid rate of speech. Hence, the design of the listening comprehension practices should be as diverse as possible to meet each individual student's needs.

Keywords: consecutive interpreting, note-taking strategy, listening strategy instruction, TOEIC listening

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逐步口譯筆記技巧 在臺灣高中生英語聽力教學之應用

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本研究旨在探討逐步口譯筆記策略 (CINT) 對臺灣高中生英語聽力教學之成效。研究對象為中臺灣某高中二年級兩班共70位學生，其中一班為實驗組 (35人)，另一班為對照組 (35人)。兩組皆使用相同多益聽力教材，唯一差別在於只有實驗組接受CINT教學，共歷時十週。研究工具包括：多益聽力測驗、逐步口譯筆記講義、實驗前後問卷。研究結果顯示，實驗組與對照組前後測表現相較之下，進步狀況皆達顯著差異。然而，兩組進步幅度相較之下，實驗組顯著優於對照組，顯示筆記策略教學有益於增進學習者在聽力理解方面的進步幅度。整體觀之，質性資料亦呼應量性結果。根據本研究結果，總結出兩點筆記策略聽力教學建議。第一，逐步口譯筆記策略教學有助於提升英語聽力理解，建議融入課程之中以提升學生聽力程度。第二，筆記策略可提升學生專注力與記憶力，但無法克服單字與語速障礙，聽力策略的教學應盡可能的多元化，以利學生多元發展。

關鍵詞：逐步口譯、筆記策略、聽力策略教學、多益聽力

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本篇投稿論文為中華民國101年五月於國立彰化師範大學發表之碩士論文改寫而成，同名之完整論文共118頁。

Introduction

Purpose of Study

Challenging as English listening is, it deserves a place of its own. Ironically, English listening instruction has merited little classroom attention in Taiwan (Chern, 2002). Since 1999, textbooks have been developed by commercial publishers. Cutthroat competition compels them to design teaching materials based on teachers' needs and suggestions since they are often those who decide which textbook(s) to adopt. Unfortunately, most Taiwanese English teachers are still haunted by traditional ways of teaching. Therefore, the textbooks, boasting communicative language teaching (CLT) principles, resemble a form-focused, structure-oriented syllabus because they continue to focus mainly on reading and writing. Teachers have no alternative but to leave listening instruction behind and embrace the grammar-based, exam-oriented teaching. Motivated by such stalemate, this study attempts to venture a way of teaching to facilitate listening comprehension — consecutive interpreting note-taking (CINT) conventionally used by professional interpreters.

Liu (2008) defined CINT as a note-taking style which aims to convey the most message visually by using effectively the limited space of paper with unspecific languages or symbols. She identified four features — immediacy, flexibility, contextuality, and disposability — distinguishing the CINT from general note-taking. The CINT features immediacy because the interpreter has to render the input as soon as the speaker finishes speaking; however, general note-takers need not interpret the text. The immediacy issue challenges students of listening comprehension because they are required to answer questions immediately after the recording is finished. General note-taking tends to record

the speech in the specific language used in the listening input (Liu, 2008). However, the CINT is much more flexible in adopting abbreviations, figurative symbols, scientific symbols, and mother-tongue symbols. Contextuality can also serve the purpose of helping students to decode the input from contexts. Furthermore, unlike general note-taking, the CINT is formed section by section. Each section usually represents a complete message by itself. Last, general note-taking is adopted for future use in most cases; nonetheless, the CINT is for interpreting on the spot, instead of for future review.

The nature of note-taking has much to do with the indirect mode of listening strategies (Oxford, 1990). Meta-cognitively, note-takers evaluate the listening input and organize the message logically. Affectively, note-takers' confidence in listening may be heightened, while their anxiety reduced. Socially, discussion of the notes increases the interactions among learners, thereby facilitating cooperative learning. Therefore, note-taking strategies are closely connected with listening strategies. This implies that a combination of the two may be beneficial to language learning.

The application of general note-taking to listening comprehension, so far, has been well studied and the findings are promising (e.g. Zheng, 1995; Lin, 2005; Hayati & Jalilifar, 2009). However, empirical research on the CINT remains deficient. The major benefit of note-taking lies in overcoming the limitation of short-term memory. Can the CINT, which works so well for professionals, also assist senior high school students in English listening comprehension? This study addresses two questions:

1. Does the CINT training effectively help the learners to improve their listening performance?
2. According to participants' listening and note-taking experience, how do senior high school students perceive the CINT instruction?

This study ventured a training method, which may shed some light on how to improve learners' proficiency in English listening comprehension. The significance lies in proffering a pedagogical guide for both teachers and learners.

Literature Review

Listening comprehension and note-taking have been studied for decades; however, they are often investigated as separate entities. Researchers found something in common and ventured to treat it as an interdisciplinary subject (Carrell, 2007). However, studies concerning both listening comprehension and note-taking are scarce.

The effect of note-taking is often underestimated. Helgesen, Brown, and Smith (1996) indicated that listeners connected the speech with related thoughts and mentally replayed the scene through reviewing their notes so as to reinforce both comprehension and memory of the content. A later study conducted by Davis and Hult (1997) supported the same viewpoint with similar results. Reviewing notes not only intensified listeners' long-term memory, but also involved them more in personal level about the subject matter (Piolat, Olive, & Kellogg, 2005). One can consider note-taking as a learning tool as it helps deepen levels of listening comprehension and reconstruct the input in a more comprehensible way (Faber, Morris, & Lieberman, 2000; Boscolo & Mason, 2001).

Hale and Courtney (1991) proposed an opposite view about note-taking and listening comprehension. Using a multiple-choice questionnaire, they surveyed undergraduate and graduate international students' reactions to the opportunity to take notes and their previous note-taking experience regarding TOEFL listening comprehension section, particularly the short monologues.

Their results showed: (1) Allowing students to take notes had little effect on their performance, and (2) urging students to take notes radically undermined their performance. The researchers concluded that TOEFL listening comprehension test was designed with minimal demand on memory, so note-taking did not produce a marked effective function.

Furthermore, Hale and Courtney (1994) extended their research to indicate three reasons regarding the incompetence of note-taking. First, if the speech rate was above the listener's comprehension ability, this incongruence was likely to make the listener give up multitasking. Second, note-taking may help retain incoming messages, but once the listening input went beyond the listener's ability, it was no use taking notes anymore. Third, if the input was too professional or unfamiliar, listeners with less prior knowledge could fail, no matter they mastered note-taking or not.

In 2005, Lin conducted an experiment with 70 EFL junior high school students as subjects for four months, exploring if note-taking helped enhance listening comprehension. The results suggested that teachers should allow students to listen to the content repeatedly, lecture on the listening text after testing, and guide them how to take notes.

Kobayashi (2005, 2006) categorized the note-taking instructions of 33 different studies of the past three decades into six distinct steps in note-taking training:

1. Pre-training of note-taking skills or strategies.
2. Giving verbal instructions to employ a particular note-taking strategy.
3. Providing framework notes at the beginning of class.
4. Pre-training of note-reviewing skills or strategies.
5. Giving verbal instructions to employ a particular note-reviewing strategy.
6. Complementing personal notes with instructor's notes at the time of later review.

Hayati and Jalilifar (2009) examined the effect of Cornell Method (hereafter abbreviated as the CM) of note-taking in listening comprehension. CM is a systematic note-taking format for organizing information. The format is divided into three major parts: note-taking column on the right, a question/key word column on the left, and a summary section at the bottom (“Cornell Method”, n.d.). Sixty English-major undergraduates were randomly divided into three groups: CM note-takers, uninstructed note-takers, and no note. They took a simulated TOEFL, and the results indicated that although the CM at first may seem cumbersome, the mastery of it was conducive to listening comprehension.

Tsai and Wu (2010) instructed 108 students explicitly to investigate the effects of CM and note-taking language (English vs. Chinese) on Taiwanese college students’ English listening comprehension for short conversations and long lectures. Results revealed that explicit note-taking instruction influenced significantly the listening comprehension of both types of texts, regardless of English or Chinese used for taking notes. The study confirmed the essentiality of explicit, sustained note-taking instruction. It also indirectly suggested that EFL students’ native language (in this case, Chinese) became relatively inefficient to analyze information delivered in English.

The above-mentioned findings enlightened this experiment. Several modifications were implemented to fine-tune the CINT experiment. First, Hale and Courtney (1991) noted that taking notes impeded listening performance because TOEFL was designed with minimal demand on memory so that note-taking wielded little influence. Hence, the fourth part (i.e., short talks) of the TOEIC was adopted for the present study. It is longer and, thus, suitable for investigating the effect of note-taking. They also suggested that listening breakdown stemmed mainly from listeners’ comprehension ability, limited short-term memory, and familiarity of materials (1994). Thus, the inputs were made as

comprehensible to the participants as feasible.

Second, note-taking strategy could be regarded as a learning tool because it deepened the level of listening comprehension utilizing visual symbols (Faber, Morris, & Lieberman, 2000; Boscolo & Mason, 2001). The present study shared the same faith in visual symbols. The CINT handouts were designed with abbreviations, math/science symbols, mother tongue symbols, and figurative symbols.

Third, Hayati and Jalilifar (2009) maintained that Cornell Method (CM) was beneficial to listening comprehension, but not flexible enough to expand its symbolic readability. The CINT is more flexible compared to CM. For example, CM note-takers usually jot notes in their native languages in three fixed sections — keywords, notes, and summary. On the contrary, the CINT, featuring its iconic symbols and a zig-zag pattern, gives note-takers more leeway to encode the input.

Fourth, Tsai and Wu (2010) found that students' native language was inefficient to analyse information delivered in English. They recommended explicit instruction on note-taking skills. Therefore, the participants in the present study were given explicit instruction on note-taking skills. They were also encouraged to utilize any form of linguistic symbols to achieve their best.

In addition to the above modifications, previous findings also helped the formation of the present experiment. First, Lin (2005) noted that teachers should grant students listening to the same content repeatedly, lecture on the listening text after testing, and guide them how to take notes. Thus, except for the pre-test and the post-test, the participants were allowed to listen to the material more than once. The instructor guided them mostly by demonstrations instead of lectures because the latter were more about doing reading activities than practicing note-taking and listening. Second, reviewing notes involved

students more personally in the note-taking strategy; consequently, intensified their long-term memory (Piolat, Olive, & Kellogg, 2005). As a result, note-reviews were integrated into the teaching process. Third, Kobayashi (2005, 2006) proposed six note-taking methods, such as pre-training of note-taking skills or strategies. These principles were also incorporated into the instructions.

In summary, one can have confidence to say that note-taking facilitates language learning, but whether or not it has a positive effect or a long-term impact awaits further investigation. The CINT is never an easy task. At first, learners find it challenging to handle two tasks simultaneously due to their poor attention distribution. With repeated practice, learners succeed in taking eligible notes. Although most studies held a positive attitude toward note-taking strategy, these studies were oriented to conventional note-taking methods. Efficient and effective as the CINT is, this study is seeking to fill the void in research on the CINT and English listening comprehension.

Method

Participants

Seventy senior high school students (42 males and 28 females; with a mean age of 16.3 years) in central Taiwan participated in this study. They were from two classes (35 students from each), forming the treatment group and the control group respectively. On average, they have been learning English for 9.4 years. None of them have lived overseas. None have taken the TOEIC, while 44 (62.86%) of them have passed at least the basic level of the GEPT.

Instrumentation

The instruments were made up of a pre-experiment questionnaire (Appendix 1), a pre-test and a post-test (ETS, 2007), CI note-taking handouts (Appendix 2), a post-experiment questionnaire (Appendix 3), and ten TOEIC listening mock tests in short talks (Kwon, 2010).

Pre-experiment questionnaire. The pre-experiment questionnaire comprised two parts; the first part was dedicated to the participants' personal background, while the second part the listening difficulties that the learners may confront so as to alert them to the potential problems.

Pre-test. The pre-test was conducted to examine the homogeneity between groups. Both the pre-test and the post-test come from New TOEIC Official Test-Preparation Guide issued by Educational Testing Service (ETS) in 2007. The participants took the fourth part of the new TOEIC listening test. The fourth part, short talks, made up of thirty multiple-choice questions, was long enough to urge listeners to capitalize on note-taking to break the limits of short-term memory. Each short talk ranged in length from 110 words to 190 words and was presented on commercially available tape at a rate of around 110 words per minute (ETS, 2007).

Post-test. The post-test was adopted to compare with the participants' performance in the pre-test to address the research questions. When constructing the pre-test and the post-test, the equivalency was the primary concern; therefore, the two tests were controlled to be as similar as possible in terms of difficulty, question numbers, time limit, etc.

Post-experiment questionnaire. The questionnaire included two parts. Part A entailed sixteen five-point Likert-scale questions regarding participants' listening and note-taking experience. Part B presented two open-ended questions for the participants to describe the changes on their listening comprehension ability and the effect of the CINT (Appendix 3).

Ten TOEIC mock tests in short talks. Ten TOEIC mock tests in short talks were adopted for note-taking instruction in listening comprehension. These mock tests were chosen from Kwon's (2010) testbook because of its speech rate, diverse accents, and sufficient exercises. TOEIC was selected mainly as an experimental tool to investigate the effect of the CINT on listening comprehension, rather than to challenge its examination regulation that no note-taking is allowed.

CI Note-taking & Handouts

Liu (2008) demonstrated the efficacy of the CINT with an excerpt of a speech on Clinton's economic plan.

What I want to talk about or try to talk about here is Clinton's economic plan. But again, as I have already said, I do not want to discuss it in any great economic detail. There are a couple of reasons for this, I guess. First of all, because I could not, even if I wanted to. And secondly, if I did, this would certainly become a very boring exercise indeed. We do not want to listen to a lot of facts and figures just yet. But what I would like to do here is to talk about it from an everyman point of view. I mean, from an ordinary citizen's point of view and what perhaps is my own ordinary man point of view's understanding of the plan [...]. (p.114)

This excerpt is a typical example of redundancy. Liu transformed it into a set of meaning-based symbols (p. 123):

" Clinton
 EP
 x detail
 ∴ 1° cfr
 2° boring
~~ear~~ fact
 no

 but " as - 一般人
 my ☺

Figure 1. Liu's notes of an excerpt on Clinton's economic plan

Basically, the economic plan was abbreviated to "EP." In addition, she drew a crossed-out ear followed by words of "fact" and an abbreviated version of "number" (no) to chunk the sentence "We do not want to listen to a lot of facts and figures just yet." Such figurative symbols could also be seen in the image of a circle with two vertical dots inside to signify the concept of "viewpoint." Furthermore, she used mathematic symbols to encode the causal relationship and to arrange the notes in order. In this case, the 128-word speech was reduced to 19 words and symbols. Clearly, the CINT method is economic and efficient once mastered.

The handouts were designed to facilitate the note-taking instruction, rendering the participants more efficient in learning note-taking. The treatment

group received the participant-version handouts with blanks to fill in to keep them focus on the lecture.

The handouts were designed from three perspectives. First, concerning the format, Cornell Method developed by Walter Pauk (2001) was selected because of its widely-used layout for recording and reviewing notes. Nevertheless, the CM format may seem cumbersome for demanding TOEIC listening tasks and thus some modification was necessary. For instance, the summary section was obliterated. Moreover, different from the CM, the CINT transformed the cue column into a connector section (column B in Figure 2), in which participants can jot down linguistic connectors, such as transitional words. The adapted format of the CINT is illustrated below. Column A refers to note-taking area used to record the listening input concisely with the CINT symbols. Column B is to jot down transitional connectors to make the notes more logical.

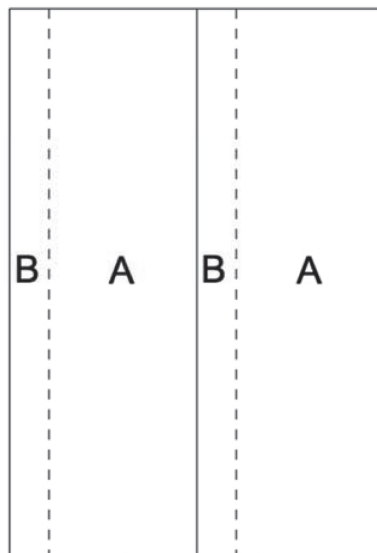


Figure 2. Modified format of the CINT (Source: Compiled by the authors)

Second, symbols frequently used in international conferences were another credit to the handouts. Key words and abbreviated information serve as substantial tools in CI note-taking. The former refers to the words that carry essential information by means of shortened sentences, omissions of function words, retention of content words, word order shift, intercultural symbols, etc. As for the latter, abbreviating input is achieved by omitting endings, vowels, and double letters, using only the first or first two letters of certain words, using symbols to replace certain words, using acronyms, and so on (Reima Al-Jarf, 2011). For instance, the names of organizations are often jotted down in acronyms. The U.N. is for the United Nations. Mathematical abbreviations are quite common in CINT. “>” is symbolic of “more than,” whereas “<” “less than.” Furthermore, certain creative abbreviations are specific to CI. For instance, “W3” is an abbreviated version of the World Wide Web. Moreover, the CINT is so versatile that it encodes the tense delicately. For example, “OKd” and “OKll” represent the meaning of “agreed” and “will agree,” respectively. These key words and abbreviations constituted a great portion of the CINT. Finally, a professional interpreter instructed the author, who developed a list of CI note-taking symbols inclusive of the aforementioned skills and, more distinctively, simplified Chinese characters and graphic symbols to meet the needs of Taiwanese senior high school listeners. For example, “开” is a simplified Chinese character signifying “open” (Appendix 2).

Procedures

The schema of the experimental procedures is represented by the flowchart shown in Figure 3. Although the control group differs from the treatment group in the adoption of CINT intervention, during the intervention period, the former was exposed to the same listening materials as the latter to ensure the

equality of listening exposure. Additionally, the ten-week schedule of tasks for both groups is listed in Table 1.

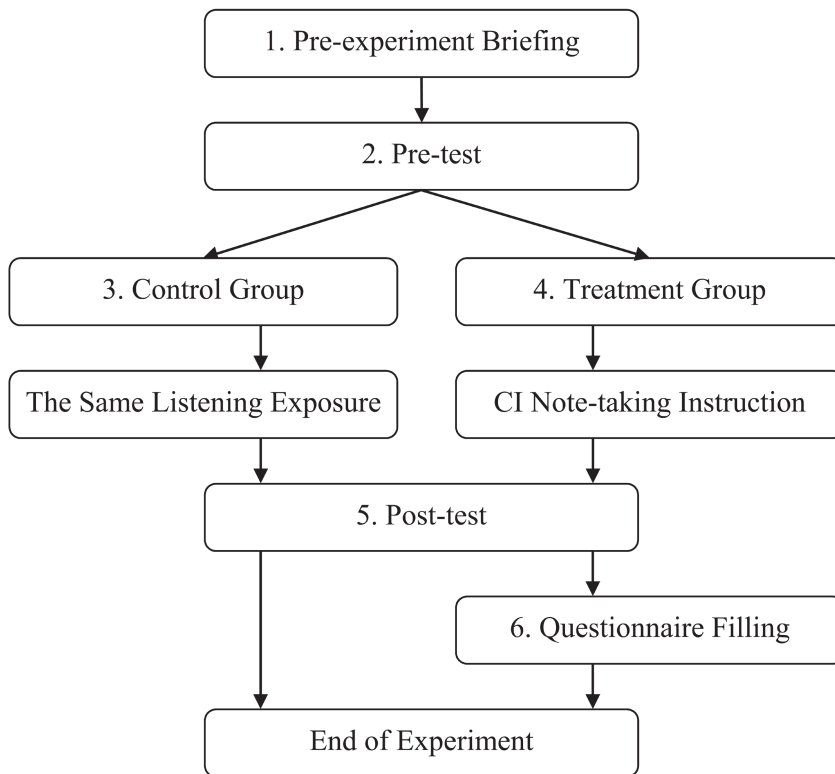


Figure 3. Flowchart of experimental procedure (Source: Compiled by the authors)

Table 1

Schedule of Tasks

Time	The Control Group	The Treatment Group
Week 1	Briefing and filling in the pre-experiment questionnaire Taking the pre-test	Briefing and filling in the pre-experiment questionnaire Taking the pre-test
Week 2	Practicing the first half of Set 1	Instruction on the CINT Practicing the first half of Set 1
Week 3	Practicing the second half of Set 1	Instruction on the CINT Practicing the second half of Set 1
Week 4	Practicing Set 2	Practicing Set 2
Week 5	Practicing Set 3	Practicing Set 3
Week 6	Practicing Set 4	Practicing Set 4
Week 7	Practicing Set 5, 6	Practicing Set 5, 6
Week 8	Practicing Set 7, 8	Practicing Set 7, 8
Week 9	Practicing Set 9, 10	Practicing Set 9, 10
Week 10	Taking the post-test	Taking the post-test Filling in the questionnaire

Note. Compiled by the authors

Pre-experiment briefing. All participants were given a questionnaire to fill in their personal information and prior learning experience. They were informed that anyone who skips class would be disqualified from the study.

Pre-test. The pre-test was administered to assess participants' a priori English listening comprehension ability. They were required to answer thirty multiple-choice listening comprehension questions. Just as the real TOEIC, the talks were spoken only once, and they had one hour to complete the test.

Control group. The control group did not receive any note-taking instruction;

however, they were well-informed that note-taking was allowed during the listening exercises. They completed the identical TOEIC exercises scheduled for the treatment group to maintain the same listening exposure. Their lessons followed a traditional protocol: The teacher played the listening material, students answered the questions, the teacher checked their answers, gave feedback, and replayed the material if necessary.

Treatment group. The treatment group went through a ten-week experiment, including an eight-week training course (16 hours in total), and a two-week period for the briefing, questionnaire-filling, pre-test, and post-test. In terms of the eight-week training course, the first two weeks were designed to teach the participants the CINT system while demonstrating the flexibility and creativity of note-taking styles. Then, each of the next six weekly two-hour sessions followed the format described in Figure 4. Based on classroom observations, participants had begun to show their “mastery” of the CINT since the fourth week of the experiment.

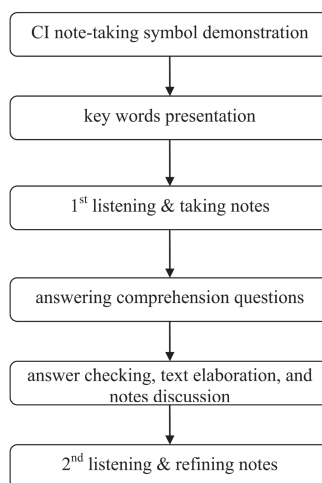


Figure 4. The CINT instruction cycle (Source: Compiled by the authors)

Post-test. The post-test was to assess all participants' a posteriori listening proficiency. Except for the content, the post-test was equivalent to the pre-test and the materials used in the training period.

Questionnaire filling. The treatment group was given the post-experiment questionnaire (Appendix 3) to reflect on their note-taking experience.

Data Analysis

Data collected include the pre-test scores, the post-test scores, and the post-experiment questionnaire.

Scores of the pre-test and post-test. The pre-test and post-test each had 30 questions. Participants' scores are the percentages of correct answers rounded to two decimal points. For example, if a participant answered 20 out of 30 questions correctly, his or her score is 66.67. This experiment followed a conventional pre-test/post-test design and a 2×2 repeated-measures ANOVA (with one between-subject and one within-subject factors) was adopted to analyze the scores. The between-subject factor (GROUP) contained two levels: treatment group and control group; the within-subject factor (TEST) had two levels: pre-test and post-test. This ANOVA design examined three effects: (1) The GROUP (between-subject) effect examined the overall performance of the two groups; (2) The TEST (within-subject) effect compared the pre-test and post-test results; (3) The TEST \times GROUP interaction (within-subject) effect which is the main focus of this analysis regarding whether or not the note-taking training improved the participants' listening comprehension.

The post-experiment questionnaire. The underlying learning experience from the questionnaire was analyzed qualitatively, on which pedagogical implications were based.

Result and Discussion

Description of the Participants

The descriptive statistics of the pre-test scores of the two groups are summarized in Table 2. Although the mean score of the control group (46.38) is slightly higher than that of the treatment group (45.90), a non-significant t-test result [$t(68) = 0.13$, $p = 0.8986$] indicated the two mean pre-test scores are not statistically different. Thus, the treatment and control groups were considered homogeneous in their performance on the pre-test.

Table 2

Descriptive Statistics of Pre-test Scores

Group	Mean	Std. Deviation	Minimum	Maximum
Treatment	45.90	15.43	16.67	83.33
Control	46.38	15.73	16.67	90.00

Note. Compiled by the authors

The participants' responses on the four biographical items: self-evaluation of listening proficiency, significance of listening in language learning, willingness to improve listening proficiency, and average exposure to English listening input per week, are summarized in Table 3.

Table 3

Four Aspects of the Participants' Status Quo and Attitude toward Listening (%)

Self-evaluation of Listening Proficiency				
Very Good	Good	Average	Bad	Very Bad
0	11.43	47.14	30.00	11.43
Significance of Listening in Language Learning				
Very Important	Important	Average	Not Important	Not Important at All
30.00	65.71	1.43	2.86	0
Willingness to Improve Listening Proficiency				
Very High	High	Average	Low	Very Low
18.57	51.43	27.14	2.86	0
Average Exposure to English Listening				
0 Hour	Within 1 Hour	1-3 Hours	3-5 Hours	Over 5 Hours
8.57	57.14	25.71	8.57	0

Note. Compiled by the authors

Table 3 revealed an interesting scenario. First, none of the participants considered their listening proficiency “very good,” and about 42% self-evaluated as “bad” or “very bad.” This confession of mediocrity may manifest participants’ lack in self-confidence. Second, over 95% of the participants attached great significance to listening skill by checking “very important” or “important.” Third, less than 3% of the participants were unwilling to enhance their listening proficiency. Fourth, less than 9% of the participants exposed themselves to English listening for over three hours per week, which is far from satisfactory. This embarrassing phenomenon corresponded to the powerless learning scenario in Taiwan and made an inconvenient truth that participants had to face.

In order to recognize the difficulty hindering listening comprehension, the

participants were asked to check “Yes” or “No” on 24 factors listed in the pre-experiment questionnaire. The results are presented in Table 4. Using 70% of “Yes” responses as the criterion, six major difficulties were identified: statements (3), (7), (13), (14), (16), and (18). Among these difficulties, the CINT was assumed to overcome them, particularly for statements (7), (13), and (18). This portion of the questionnaire was intended to draw participants’ awareness on their own strength and weakness in listening comprehension, so that they could notice the changes after the experiment.

Table 4

Summary of the Participants’ Listening Difficulties

Statements	Yes (%)	No (%)
(1) I feel very nervous.	42.86	57.14
(2) I am not familiar with grammar.	54.29	45.71
(3) I have insufficient vocabulary.	97.14	2.86
(4) I cannot make a distinction between words.	14.29	85.71
(5) I cannot recognize the stress of words.	31.43	68.57
(6) I can make a distinction between words, but fail to chunk them meaningfully.	60.00	40.00
(7) I am familiar with the words, but fail to recall them.	94.29	5.71
(8) I have difficulty concentrating.	35.71	64.29
(9) I have difficulty concentrating at first, so I miss the first listening section.	51.43	48.57
(10) I concentrate too much on the first listening section, so I miss the listening later.	55.71	44.29
(11) I cannot understand the first section, so I miss the listening later.	41.43	58.57
(12) I cannot keep in mind what I have just heard.	30.00	70.00
(13) I feel that the listening text is too long.	74.29	25.71
(14) I feel that the listening text has no sufficient pause.	72.86	27.14

(continued)

Table 4

Summary of the Participants' Listening Difficulties (continued)

Statements	Yes (%)	No (%)
(15) I feel that the listening text is too short to develop main ideas.	28.57	71.43
(16) I am not familiar with the listening subject.	78.57	21.43
(17) I am not interested in the listening subject.	45.71	54.29
(18) I fail to keep up with the speech rate.	70.00	30.00
(19) I am not used to the speaker's enunciation.	62.86	37.14
(20) I am not used to the speaker's intonation.	30.00	70.00
(21) I am not used to the speaker's accent.		62.86
(22) I have no chance to listen again.	42.86	57.14
(23) I count on listening only, without any visual aids.	41.43	58.57
(24) I have limited exposure to English listening.	68.57	31.43

Note. Compiled by the authors

Quantitative Results of the First Research Question

The first research question: Does the CINT training effectively help the learners to improve their listening performance?

The means and standard deviations of the pre-test and the post-test scores are presented in Table 5, followed by the ANOVA result summarized in Table 6.

Table 5

Means and Standard Deviations (in Parentheses) of the Pre-test and the Post-test

	Treatment Group	Control Group	
Pre-test	45.90 (15.43)	46.38 (15.73)	46.14 (15.47)
Post-test	58.67 (14.60)	48.25 (14.72)	53.48 (15.46)
Total	52.29 (16.24)	47.33 (15.15)	49.81 (15.84)

Note. Compiled by the authors

Table 6

ANOVA Results of the Experiment

Source	SS	df	MS	F	p
Between-subject					
Group	858.41	1	858.41	2.43	0.1235
Error	24003.17	68	352.99		
Within-subject					
Test	1882.22	1	1882.22	18.01	< 0.0001
Test × Group	1031.43	1	1031.43	9.87	0.0025
Error	7108.57	68	104.54		
Total	34883.80	139			

Note. Compiled by the authors

In this analysis, the focus is the within-subject effects. The Test effect is statistically significant [$F(1, 68) = 18.01, p < 0.0001$]. Specifically, for both groups combined, the mean post-test score (53.48) is higher than that of the pre-test score (46.14). To answer the first research question about the effect of the note-taking, the statistically significant Test × Group interaction effect [$F(1, 68) = 9.87, p = 0.0025$] is the main focus. As shown in Figure 5, the improvement of the mean score for the treatment group is larger than that for the control group. The average improvement for the control group is about 2% while that for the treatment group is 12.76%. Simply stated, although both groups made progress, the treatment group made statistically greater progress than the control group. The above result may be partly from repeated training or over-exposure to the TOEIC exercises, the huge leap of the treatment group implied the effectiveness of the note-taking instruction, especially when the control group was also exposed to the same materials. In other words, the CINT instruction did have a positive effect on senior high school students' listening comprehension.

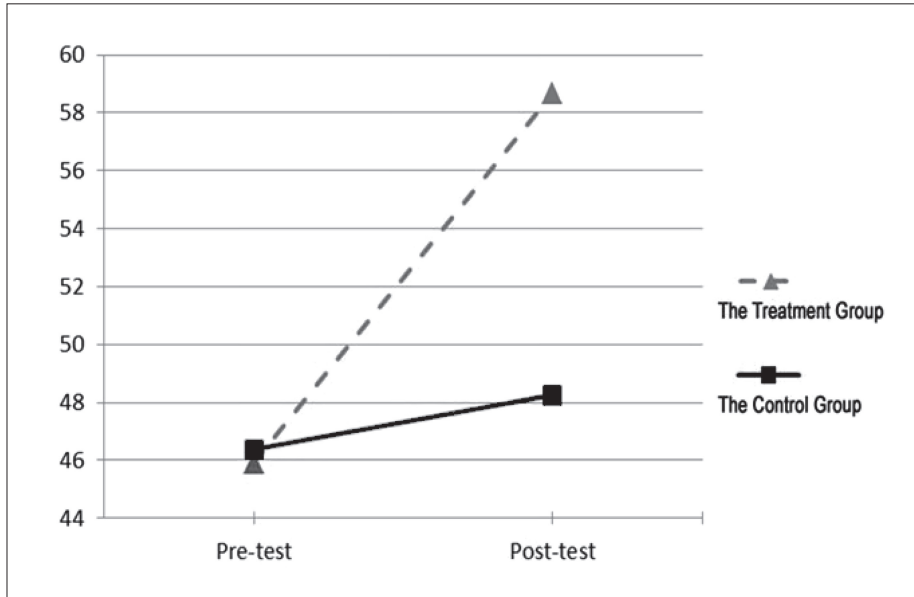


Figure 5. Test \times Group interaction (Source: Compiled by the authors)

Qualitative Results of the Second Research Question

The second research question: According to the participants' listening and note-taking experience, how do senior high school students perceive the CINT instruction?

There were sixteen five-point Likert-scale statements listed in the post-experiment questionnaire (Appendix 3). The following analyses focused on eight major statements. They were chosen because of their deep relation to the overall effectiveness and the typical CINT features, such as factors regarding concentration and memory.

The analyses of the eight major statements.

Table 7

The First Statement: Taking notes Helped Me to Answer the Questions Better

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	4	11.43	4	11.43
Agree	26	74.29	30	85.71
Neither Agree Nor Disagree	5	14.29	35	100.00

Note. Compiled by the authors

Most participants (85.71%) confirmed the value of note-taking in helping them answer the questions while none denied its effect (Table 7). This pattern may reflect how the CINT built the participants' self-confidence in answering questions. The post-test result also supported that they answered questions better.

Table 8

The Third Statement: Taking Notes Helped Me to Concentrate on the Talks

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	8	22.86	8	22.86
Agree	19	54.29	27	77.14
Neither Agree Nor Disagree	6	17.14	33	94.29
Disagree	2	5.71	35	100.00

Note. Compiled by the authors

The “concentration” factor is crucial in this study as note-taking requires participants to be far more focused in tasks than before. The more concentrated they were, the better they might perform. Twenty-seven (77.14%) participants agreed to this concentrating effect of the CINT (Table 8).

Table 9

The Fifth Statement: Taking notes Helped Me to Remember the Information in the Talks

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	13	37.14	13	37.14
Agree	18	51.43	31	88.57
Neither Agree Nor Disagree	4	11.43	35	100.00

Note. Compiled by the authors

The responses are central to this study because the CINT features the advantage of using an external memory aid. As expected, most participants (88.57%) confirmed the value of the CINT in helping them “breach” the limitation of short-term memory (Table 9). Additionally, 37.14% of the participants “strongly agree” with this statement, which meant that they deeply believed in the effect of the CINT.

Table 10

The Sixth Statement: Taking Notes Helped Me to Organize the Information

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	6	17.14	6	17.14
Agree	20	57.14	26	74.29
Neither Agree Nor Disagree	9	25.71	35	100.00

Note. Compiled by the authors

Most participants (74.29%) thought highly of the CINT (Table 10). This note-taking technique helped them organize the complex listening task with its figurative symbols and flexible format. In this way, participants may regard the CINT as a tool to organize information in future tests.

Table 11

The Seventh Statement: I Felt More at Ease When I Could Take Notes than When I Could Not

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	6	17.14	6	17.14
Agree	9	25.71	15	42.86
Neither Agree Nor Disagree	11	31.43	26	74.29
Disagree	8	22.86	34	97.14
Strongly Disagree	1	2.86	35	100.00

Note. Compiled by the authors

Responses to this statement were diverse. It is the only item with responses ranging from “strongly agree” to “strongly disagree” (Table 11). The pattern indicated that the note-taking experience differed from person to person. The incongruence may arise from different levels of mastery of the CINT. It may also result from how well the participants could overcome their anxiety during the pressing task.

Table 12

The Tenth Statement: The Questions Were about Things I Had Written in My Notes

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	2	5.71	2	5.71
Agree	23	65.71	25	71.43
Neither Agree Nor Disagree	6	17.14	31	88.57
Disagree	4	11.43	35	100.00

Note. Compiled by the authors

The crux is the connection between the notes and the questions. Logically, if the notes taken have much to do with the questions, the participants are more likely to land on desirable answers. The ability to connect the note to the questions reveals the participants' prowess of catching transient but crucial keywords. Most participants (71.43%) agreed that they had experienced the connection, symbolic of the positive effect of the CINT (Table 12).

Table 13

The Eleventh Statement: Taking Notes Helped Me with Details such as Names and Dates

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	20	57.14	20	57.14
Agree	14	40.00	34	97.14
Neither Agree Nor Disagree	1	2.86	35	100.00

Note. Compiled by the authors

Almost all participants (97.14%) recognized the advantage of the CINT to keep record of details such as names and dates (Table 13). The result is so

overwhelmingly positive that the CINT actually compensated the participants' dependency on short-term memory. This improvement will help them answer detail-oriented questions.

Table 14

The Sixteenth Statement: I Believe that the CINT Can Enhance My Listening Comprehension

	Frequency	Percent	Cumulative Frequency	Cumulative Percent
Strongly Agree	14	40.00	14	40.00
Agree	20	57.14	34	97.14
Neither Agree Nor Disagree	1	2.86	35	100.00

Note. Compiled by the authors

The CINT is a complex skill. However, almost all participants (97.14%) admitted that the CINT was helpful in improving their listening comprehension (Table 14). This finding urged the public to look on the positive side of the CINT. The rationales were threefold. First, the participants had confidence in their own learning ability. Second, they had confidence in the CINT. Third, the best scenario was the combination of both confidences. No matter which factor dominated, most participants more or less shared faith in the CINT.

The analyses of the two open-ended questions. The first open-ended question: Do you feel any changes on your listening comprehension ability after the experiment; if yes, what is the change? If no, why?

Despite of sporadic negative feedback, most participants were full of praises for the CINT. There are three aspects of positive feedback: concentrating, memorizing, and pinpointing. However, two aspects of negative feedback were also noted: vocabulary and speed.

Most participants asserted that their listening comprehension was enhanced

thanks to the improvement on concentration, memory, and pinpointing main ideas and details. The results were not surprising because these three aspects were the characteristics of the CINT.

1. Concentration: “The level of my concentration is significantly improved (T18).” “I can focus on the listening longer than before, get less nervous, and cool down to think about the questions (T22).”
2. Memory: “I have a short memory span, so I need the help of notes (T8).” “Without note-taking, I forget about the listening text even if I can remember it for a moment (T16).”
3. Pinpointing: “Although it was hard to listen and write simultaneously, I could catch the key words through note-taking (T6).” “I may not be professional enough to jot down everything, but I am capable of recording a part of important sentences regarding time and names quickly (T7).”

In this regard, these three CINT characteristics could be considered a part of meta-cognitive strategies applied to listening comprehension. The effectiveness of meta-cognitive strategies had been already validated in literature (e.g., Wang, 2002; Chen, 2005; Lin, 2006; Huang, 2008; Hung, 2010).

Conversely, some participants reflected that they suffered from stumbling the meanings of unfamiliar words and failing to keep up with the speech rate of the talks. The problem intensified when these two difficulties intertwined. Students with the lower proficiency may reverse to their “comfortable” way if the difficulty level reached certain threshold.

1. Vocabulary problem: “I recognized so few words that I could not chunk

them into meaningful passages (T5).” “It was a matter of vocabulary, which had nothing to do with my listening proficiency (T34).”

2. Speech rate: “The talks were too fast for me to keep up with (T17).” “Sometimes I missed many messages when I was struggling to figure out the corresponding symbols. Maybe I did not practice the CINT enough (T28).”

The second open-ended question: Would it be helpful if teachers integrate CI note-taking strategies into language teaching and learning? Why?

Almost all participants considered the CINT helpful, with only one arguing, “Although note-taking helped me jot down the main ideas of a passage, I still felt little change in my proficiency of English listening, speaking, reading, and writing (T17).”

The rest of the participants recapitulated the advantages of the CINT to support their positive feedback on the CINT effect. However, two insightful statements were observed: “The CINT does not work for everyone. Learners can try it and choose the best way to listen for themselves (T21).” “I don’t think listening proficiency can be improved only by listening repeatedly. Listening strategies are essential (T26).” Besides, a “fun” factor also emerged from the responses: “I found the fun of listening through note-taking (T15).” “Actually the CINT was fun because it made me concentrated (T23).”

Comparison with Previous Studies

The results contradicted Hale and Courtney’s (1991, 1994) claim that note-taking had little effect on listening comprehension. However, their explanations on the incompetence of note-taking were echoed (Table 15).

Table 15

Comparison with Hale and Courtney's Claims on the Incompetence of Note-taking (1994)

Claim 1: If the speech rate is beyond the listeners' level, they will stop multitasking and turn to listen exclusively.

The responses from the present experiment:

72.86% of the participants maintained: "I felt that the listening text did not have sufficient pauses."

70.00% of the participants confessed: "I failed to keep up with the speech rate."
"The talk was too fast for me to keep up with (T17)."

"Sometimes I missed many messages when I was struggling to figure out the corresponding symbols. Maybe I did not practice the CINT enough (T28)."

Claim 2: Even if note-taking assists short-term memory, it is useless unless the listener decodes the auditory data first.

The responses from the present experiment:

97.14% of the participants asserted: "I had insufficient vocabulary."

"Sometimes I got lost, maybe it was about my poor vocabulary (T15)."

"It was a matter of vocabulary, which had nothing to do with my listening proficiency (T34)."

Claim 3: Listeners cannot listen well if the content is too professional or too unfamiliar.

The responses from the present experiment:

94.29% of the participants stated: "I was familiar with the words, but failed to recall them."

78.57% of the participants argued: "I was not familiar with the listening subject."

Note. Compiled by the authors

The participants' responses listed above revealed four major problems in adopting the CINT — speech rate, multi-tasking, vocabulary, and background knowledge. However, there are three potential solutions. First, instructors may have a playback for students to keep up with the speech rate. Second, an introduction of keywords will help students dwindle the effect of poor

vocabulary or background knowledge. Third, instructors may conduct easier trials to warm up students' multi-tasking mechanism. With all these nuts and bolts in mind, a better instruction can be formulated.

Their responses concerning the gap between school training and listening learning echoed with Lin's (2005) two suggestions: (1) Teachers need to give feedback to learners as soon as the listening task is finished; (2) note-taking strategies need to be taught explicitly. Tsai and Wu (2010) held the same attitude toward the essentiality of the explicit instruction. Education authorities should incorporate note-taking into the curriculum (Ornstein, 1994; Bakunas & Holley, 2001). These suggestions were reinforced by this study. Nevertheless, they are not practical enough to trigger any change. On one hand, the current tight school schedule has little time left for cultivating learning habits. Further, how can we expect a teacher without a note-taking habit to teach it? Against all odds, the CINT is still recommended. A devoted teacher can master the skills through self-study or on-job training. Besides, the CINT requires fluency of languages and a creative mind. Thus, this note-taking technique should be taught to senior students, despite that this habit could be nurtured much earlier.

Regarding the teaching process, the CINT is similar to Kobayashi's (2005, 2006) categorization of note-taking method. Both systems stress the significance of pre-training, explicit instruction, organized format, note-taking and reviewing strategies. However, knowing what to use is one thing, but understanding how to practice is another. Given the same scenario, teachers with different teaching styles are very likely to result in different outcomes, let alone students' diverse learning styles. Yet, these steps of note-taking training process are still beneficial. First, pre-training activates learners' schemata and reduces their anxiety. Second, explicit instruction helps them clarify their thoughts and delivers constructive feedback. If listening materials are too difficult, teachers can simplify the task.

Third, organized format serves as a visual aid to organize the message. Fourth, note-taking and reviewing strategies deepen the learning and nurture learners' meta-cognitive abilities.

In summary, the results of the present study are in line with the findings of other research concerning the positive effect of note-taking on listening comprehension (Helgesen, Brown, & Smith, 1996; Davis & Hult, 1997; Faber, Morris, & Lieberman, 2000; Boscolo & Mason, 2001; Piolat, Olive, & Kellogg, 2005). Nonetheless, Tsai and Wu (2010), in a CM experiment, managed to figure out the interplay of language factors, that is, English and Chinese. They maintained that when undergoing English listening tasks, note-taking language should coincide with the language of auditory input. Their conclusion is inconsistent with the current findings. The CINT utilized simplified Chinese characters and symbols, and they were proven recording fleeting messages effectively. Indirectly, the adoption of diverse elements from other languages or domains may open a window for learners to appreciate other cultures. Moreover, the CINT elicits an individual's creativity to "encode" and "decode" the message. The appreciation of other cultures and cultivation of creativity are among the ultimate goals of the current Taiwanese curriculum.

Pedagogical Implications

The CINT, a strategy-based approach, revolves around the process rather than the product of listening. By implication, teachers should be more aware of the listening process, obtain more information about their students' difficulties, and ultimately remedy the situation. As for learners, they should be coached systematically in order to achieve desirable results. Highly individualized note-taking symbols could be difficult for high school students to learn systematically. However, this note-taking habit can be cultivated through teachers' explicit

encouragement as demonstrated during the experiment. Also, students could be motivated to apply this strategy to other subjects which rely on using iconic symbols to memorize facts, such as history or geography.

Participants' overwhelming positive responses provided evidence of applicability of this strategy. "Notes helped me to recall the whole listening content, and I found listening and taking notes at the same time is not that difficult. So, I may perform better with sustained practice (T24)." Therefore, this preliminary result is promising. It shows that this strategy was well-received by most participants and can be implemented in senior high school curriculum.

The CINT, a meta-cognitive strategy, enables learners to organize, monitor, and transcribe their "inner voice" to compensate for their insufficiency in memory and vocabulary while listening. As a socio-affective strategy, it encourages learners not only to form mental dialogues with themselves but also to exchange their note-taking experiences with their peers or teachers. It can also be considered a learner-centered instruction which eases the anxiety in English listening through cooperative learning.

Two major implications should be emphasized. First, the CINT instruction is rewarding for senior high school students to enhance their listening comprehension. Therefore, it could be incorporated into the curriculum to boost their listening proficiency. Second, the CINT can serve as a memory aid to learners and keep their focus on tasks, but it still fails to overcome the limitation of insufficient vocabulary and breakneck speech rate. Hence, the design of any listening strategy instruction should be as diverse as possible to meet learners' individual needs.

Limitations of the Study

Inevitably, this study has its limitations. First, the time of experiment

was limited, so the results might only reflect the short-term effect of note-taking on listening comprehension. Second, listening is a receptive process. It is challenging for any instructor to demonstrate it concretely. In this study, only one instructor was utilized for note-taking training. As the instructor's modeling plays an important role in strategy instruction, the generalizability of the findings is limited. Amateur modeling may sabotage the effectiveness.

Suggestions for Future Research

The present study demonstrated the short-term effect of CINT instruction on English listening comprehension. If the experimental period is prolonged, a more profound results may be obtained. Future researcher may extend the length of the study to investigate its short-term, as well as the long-term effects. Furthermore, in future research, the treatment group can be divided into high and low proficiency subgroups. This grouping arrangement may offer more challenges to the former, and mitigate the stress of competition in the latter.

Conclusion

The results of this study have supported that CINT instruction could assist senior highschool students in English listening comprehension. With the same exposure to the listening materials in an eight-week training course, the improvement of the treatment group, on average, is significantly higher than that of the control group. The effect of CINT instruction was further validated by the positive feedback. Although the results might be tenable, further investigation of its long-term effect is required. Final note, an explicit instruction of listening strategy, such as the CINT, which provides learners a more interactive, autonomous approach to tackle any obscurity in listening comprehension with confidence, is welcomed.

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Appendix 1

The Biography Questionnaire for Pre-experiment Briefing

Directions: This questionnaire includes two parts. The first part is to collect your personal background; the second part is to investigate your listening learning problems. All responses will NOT be graded, and there is no so-called correct answer. Please read and answer the questions carefully.

Part 1: Background information

1. ID : _____ Sex: Male Female
2. Age: _____ English learning experience: _____ year(s)
3. Experience of living abroad: Yes, ____ year(s) in _____ No
4. Experience of taking the GEPT: Yes, _____ level No
5. Experience of taking the TOEIC: Yes, _____ level No
6. Self-evaluation of English listening proficiency:
 Very good Good Average Bad Very bad
7. The significance of listening in English learning:
 Very important Important Average
 Not important Not important at all
8. Self-willingness to improve English listening proficiency:
 Very high High Average Low Very low
9. Average exposure to English listening after school per week:
 None Within 1 hour 1-3 hours 3-5 hours Over 5 hours
10. School training method of English listening:
 No training Listening to English songs
 Watching English videos Listening to English radio programs

- Listening to teacher's recitation of reading materials
- Listening to video materials related to reading texts
- Chatting with teachers or classmates in English
- Others: _____

11. Self-training method of English listening:

- No training
- Listening to English songs
- Watching English videos
- Listening to English radio programs
- Listening to teacher's recitation of reading materials
- Listening to video materials related to reading texts
- Chatting with foreigners in English
- Going to cram school for English conversation
- Practicing with English listening training books
- Others: _____

12. Do you take notes to facilitate your English learning? Yes No

Part 2: Experience of English listening

This part aims to help you recognize your English listening difficulties. Please read and answer the questions carefully.

I have difficulty understanding English because...

1. I feel very nervous. Yes No
2. I am not familiar with grammar. Yes No
3. I have insufficient vocabulary. Yes No
4. I cannot make a distinction between words. Yes No
5. I cannot recognize the stress of words. Yes No

6. I can make a distinction between words, but fail to chunk them meaningfully. Yes No
7. I am familiar with the words, but fail to recall them. Yes No
8. I have difficulty concentrating. Yes No
9. I have difficulty concentrating at first, so I miss the first listening section. Yes No
10. I concentrate too much on the first listening section, so I miss the listening later. Yes No
11. I cannot understand the first section, so I miss the listening later. Yes No
12. I cannot keep in mind what I have just heard. Yes No
13. I feel that the listening text is too long. Yes No
14. I feel that the listening text has no sufficient pause. Yes No
15. I feel that the listening text is too short to develop main ideas. Yes No
16. I am not familiar with the listening subject. Yes No
17. I am not interested in the listening subject. Yes No
18. I fail to keep up with the speech rate. Yes No
19. I am not used to the speaker's enunciation. Yes No
20. I am not used to the speaker's intonation. Yes No
21. I am not used to the speaker's accent. Yes No
22. I have no chance to listen again. Yes No
23. I count on listening only, without any visual aids. Yes No
24. I have limited exposure to English listening. Yes No

Appendix 2

Teacher's Version of the CINT Handouts (Sample)

Abbreviations					
Symbol	Meaning	Symbol	Meaning	Symbol	Meaning
OK ⊗	Agree/ Disagree	w/ w/o	With/ Without	Sci人	Scientist
OK ^d OK ^{ll}	Agreed/ Will agree	s' e' c'	Social Economic Culture	Pb Pg Pj	Problem Program Project
Math/Science Symbols					
—	Minus/Loss Except	\$ £ ¥ €	Money	∴	Because/So
+	Plus/And Moreover	#	Number	><	Bigger than/ Smaller than
Mother Tongue Symbols					
中又	China/ Europe	虫	Although	ㄣ	Opportunity
代	Represent	开关	Open/ Close	一 ㄥ	Should
Figurative Symbols					
⊙	Meeting	→□□→	Import/ Export	— ↑	Support
↑ ○○ +	Ladies/ gentlemen Male/female	∅	Global Worldwide	→	Barrier Problem

Appendix 3

The Post-experiment Questionnaire

Directions: Part One includes 16 questions of five-point scale. Please answer the questions based on your listening and note-taking experience. Part Two includes three open-ended questions to clarify your listening experience. Please finish each question with 20 to 50 words in Chinese. Your responses will never be graded.

Part One: 1= strongly agree; 2= agree; 3= neither agree nor disagree;
4= disagree; 5= strongly disagree

- | | 1 | 2 | 3 | 4 | 5 |
|---|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1. Taking notes helped me to answer the questions better. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 2. Taking notes helped me to understand the talks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 3. Taking notes helped me to concentrate on the talks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 4. Taking notes made it more difficult to understand the talks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 5. Taking notes helped me to remember the information in the talks. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 6. Taking notes helped me to organize the information. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 7. I felt more at ease when I could take notes than when I could not. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 8. I had enough time to take notes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 9. I had enough time to review my notes before answering the questions. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 10. The questions were about things I had written in my notes. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 11. Taking notes helped me about details such as name and dates. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 12. I could listen better if I mastered note-taking. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 13. It was difficult to strike a balance between listening and note-taking. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 14. CI note-taking is interesting. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 15. I would love to learn more about CI training strategies. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| 16. I believe that CI note-taking can enhance my listening comprehension. | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

Part Two:

- Do you feel any changes in your listening comprehension ability after the experiment; if yes, what is the change? If no, why?
- Would it be helpful if teachers integrate CI note-taking strategies into language teaching and learning? Why?