

The Effects of Consciousness-Raising Instruction on EFL Learners' Listening Achievement through Innovative Computer-Assisted Instruction

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ABSTRACT

This study was a result of an attempt to blend a pedagogical theory with the English Discoveries Program, an innovative computer-assisted program newly introduced to a language classroom and as self-access learning in order to enhance listening skill since foreign language learners have experienced difficulty in listening. According to theorists and researchers in Second Language Acquisition (SLA), consciousness-raising (C-R) at the level of noticing enhances skill-getting. The blending of C-R theory and the computer-assisted program was, therefore, the focus of this present study. In general, the purpose of this study was to examine the effects of consciousness-raising instruction (CRI) and computer-assisted instruction (CAI) on foreign language learners' listening development. In particular, this study was designed to explore the factors that might have effects on the acquisition of the target skill, consisting of: (a) the presence or absence of the consciousness-raising instruction (CRI) with task direction to search for the clues, (b) the use of computer-assisted instruction (CAI), (c) time constraints, (d) cognitive load, and (e) task difficulty. This study employed a pretest-posttest quasi-experimental design. The listening contents consisted of different topics, which were: business, family, advertisement, call, soap opera, music, news, quiz, mystery, sports, weather, romance, and travel.

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The descriptive statistics used for describing the data were mean and standard deviation and the statistical analysis was ANCOVA. The results revealed that the CRI and CAI instruction had significant effects on learners' listening achievement. The subjects who received the CRI and CAI instruction performed significantly better than those who received the CAI - only and the control group in both the English Discoveries test and in the TOEIC (Test of English as International Communication) test.

Keywords: *Consciousness-Raising Instruction ; Computer-Assisted Instruction; Listening Achievement*

บทคัดย่อ

งานวิจัยเรื่องนี้เป็นการศึกษาทฤษฎีการสอนภาษาอังกฤษกับ **English Discoveries Program** ซึ่งเป็นโปรแกรมคอมพิวเตอร์ที่ช่วยการพัฒนาการเรียนภาษาอังกฤษ โปรแกรมดังกล่าวนี้เป็นนวัตกรรมที่นำมาใช้เพื่อการเรียนการสอนภาษาอังกฤษในห้องเรียนและเพื่อการเรียนรู้ภาษาอังกฤษด้วยตนเองของผู้เรียน โดยเฉพาะอย่างยิ่งการฝึกฝนด้านการฟัง เนื่องจาก การฟังภาษาอังกฤษเป็นทักษะที่ยากสำหรับผู้เรียนที่ไม่ได้ใช้ภาษาอังกฤษในชีวิตประจำวัน นักทฤษฎีและนักวิจัยที่ศึกษาเกี่ยวกับการเรียนการสอนภาษาอังกฤษในฐานะที่เป็นภาษาที่สอง (Second Language Acquisition หรือ SLA) ได้เสนอว่า การสอนที่มุ่งให้ผู้เรียนเกิดการตระหนักรู้ (Consciousness-Raising หรือ C-R) ในระดับของการสังเกต (Noticing) อันเป็นพื้นฐานนำไปสู่การการได้มาซึ่งทักษะทางภาษา การผสมระหว่างทฤษฎีการสอนภาษาอังกฤษกับ โปรแกรมคอมพิวเตอร์ที่ช่วยการพัฒนาการเรียนภาษาอังกฤษเป็นประเด็นที่งานวิจัยต้องการจะศึกษาเพื่อหาคำตอบ โดยกำหนดวัตถุประสงค์หลักในการศึกษา คือ เพื่อให้ทราบผลของแบบเรียนที่มุ่งให้ผู้เรียนเกิดการตระหนักรู้ (Consciousness-Raising หรือ C-R) และโปรแกรมคอมพิวเตอร์ที่ช่วยการพัฒนาการเรียนภาษาอังกฤษ กับ English Discoveries Program ที่มีต่อการพัฒนาทักษะการฟังของผู้เรียนที่ไม่ได้ใช้ภาษาอังกฤษเป็นภาษาที่หนึ่ง และกำหนดวัตถุประสงค์เฉพาะในการศึกษาตัวแปรที่เกี่ยวข้องกับทฤษฎีการตระหนักรู้ว่ามีผลต่อการพัฒนาทักษะการฟัง ซึ่งประกอบด้วย (1) แบบเรียนที่มุ่งให้ผู้เรียนเกิดการตระหนักรู้โดยมีคำสั่งหรือเครื่องหมายเกี่ยวกับคำสั่ง (Consciousness-Raising Instruction หรือ CRI) (2) การใช้โปรแกรมคอมพิวเตอร์ที่ช่วยการพัฒนาการเรียนภาษาอังกฤษ English Discoveries Program

(Computer-Assisted Instruction หรือ CAI) (3) การกำหนดเวลา (Time Constraints) (4) ภาระในการรับรู้ตามเงื่อนไขของแบบเรียน CRI และการใช้โปรแกรมคอมพิวเตอร์ (Cognitive Load) และ (5) ความยากของแบบเรียน CRI และการใช้โปรแกรมคอมพิวเตอร์ งานวิจัยนี้ ใช้การวิจัยแบบกึ่งทดลองที่มีการทดสอบก่อนและหลังการเรียน เนื้อหาที่ใช้ในการฝึกฝนมีความ หลากหลาย ประกอบด้วย รุรกิจ ครอบครั้ว โฆษณา โทรศัพท์ ละคร ดนตรี ข่าว การตอบ คำถาม เรื่องลึกลับ กีฬา พยากรณ์อากาศ และการท่องเที่ยว สถิติพรรณนาที่ใช้ คือ ค่าเฉลี่ย และส่วนเบี่ยงเบนมาตรฐาน สถิติที่ใช้ในการวิเคราะห์ คือ ANCOVA ผลการวิจัย พบว่า กลุ่ม ทดลองที่ใช้แบบเรียนที่มุ่งให้ผู้เรียนเกิดการตระหนักรู้ควบคู่กับโปรแกรมคอมพิวเตอร์ (CRI และ CAI) มีผลสัมฤทธิ์ทางการเรียนสูงกว่ากลุ่มทดลองที่ใช้เฉพาะโปรแกรมคอมพิวเตอร์ และกลุ่ม ควบคุมทั้งในการทดสอบด้วย **English Discoveries Program** และข้อสอบ **TOEIC** (Test of English as International Communication)

คำสำคัญ: แบบเรียนที่มุ่งให้ผู้เรียนเกิดการตระหนักรู้ การใช้โปรแกรมคอมพิวเตอร์ที่ช่วยการ พัฒนาการเรียนภาษาอังกฤษ ผลสัมฤทธิ์ทางการฟัง

I. Rationale for the Study

Although it has been accepted that computer-assisted programs facilitate language learning, there has been a controversy against the teaching of any language by using computer-assisted program alone and without any instructions based on theoretical guidance on the ground that the teaching does not work. The computer-assisted program is an effective tool for listening practice. However, without instruction, the tool is only a machine. To make use of computer-assisted programs more effectively, the teaching of any language, therefore, needs instructional guidance.

Several studies (e.g., Lightbown & Spada 1990; Ellis 1984) have examined the effectiveness of formal instruction on learners' ability to use what they consciously learnt in a classroom in ordinary conversation. The review of prior studies leads this present study to the conclusion that formal instruction can help development only through specific consciousness-raising practice at the appropriate level to facilitate acquisition and such instruction is most effective in the foreign language teaching situations where learners are not exposed to the practice language outside the classroom. From this position, therefore, consciousness-raising formal instruction may lead to the development of skill-getting from a classroom in skill-using in everyday conversation.

II. Consciousness-Raising and Language Acquisition

Consciousness-raising, a term first introduced by Sharwood Smith (1981), is defined as deliberate attempts on the part of teachers (or researchers) to raise learners' consciousness of the formal features of the target language with a view to promote the development of their L2 knowledge. The definition implied that learning is a result of direct manipulation of learners' mental state. Consciousness theoretically equals to awareness, consisting of three levels: perceiving, noticing, and understanding. Consciousness-raising in this study is an attempt to increase the ability to consciously perceive and notice information in order to turn it into knowledge which is called understanding or learning. As noticing plays important role in consciousness-raising theory and it is the gateway to understanding or learning, this study is based on the position that noticing is needed for foreign language learning.

Research on Consciousness-raising

Several researchers (VanPatten, 1990; VanPatten & Cadierno 1993; Doughty 1991; Fotos & Ellis, 1994; Fotos, 1993) have offered interesting characterizations of input-oriented research. For example, VanPatten (1990) investigated the effects of comprehension tasks on listening comprehension. A control group, without any tasks, listened to the text in a normal way whereas an experimental group, with given tasks, listened for a lexical item, morphological marker, or the definite article. All subjects were required to reproduce the information extracted from a listening comprehension text after the text was presented. The research findings revealed that, in the texts where processing resources are limited and meanings are more important than form, tasks which interfere least with processing would produce higher comprehension scores than tasks with interference which focus on form. This research indicated that information processing ability had an effect on what is feasible to extract from input under real-time processing conditions. Several other researchers (e.g., Ellis, 1994; Underwood, 1990; Bygate, 1988; Dechert, 1983; Crookes, 1989; Foster & Skehan, 1996; Mehnert, 1998; Skehan & Foster, 1997; Swain & Lapki, 1997; VanPatten, 1996) have offered interesting characterizations of influences on speech production. More importantly, there is a sharp contrast between comprehension-based and processing-based approaches to input. The former (for example, Krashen 1985) is dominated by the need to extract meaning, and may, as a result, not lead to any focus on form, since it is ongoing comprehension that takes priority. The latter is more concerned with the control of attention during comprehension, and the way

different clues can be focused on, for example through the development of and effective use of listening strategies (Clark & Clark 1977). VanPatten (1990) argued that the processing approach is compatible with some clear pedagogic goals. This suggests the usefulness of training language learners in effective processing, to make them more able to notice relevant cues in the input so that form-meaning links are more likely to be attended to.

Collectively, all these research studies focus on how consciousness-raising enhances listening skill via input such as instruction and task. However, there is no conclusive agreement on this argument, accumulative evidence of many studies, not any single study, may help resolve it. Although there are numerous studies in general listening skill learning strategies, insufficient empirical research has been done to investigate the effect of consciousness-raising practice on foreign language skill using and even fewer studies have examined its effect in couple with the use of computer-assisted program. This study was therefore undertaken to investigate the effect of the consciousness-raising model as presented below.

III. Model of the Study

The model consists of four components: (1) exploring the target language in context, (2) noticing its clue or clues, (3) discovering the relationship, and (4) understanding. Exploring refers to the opportunity which allows the students to perceive both forms and functions of a target language in a particular context. Noticing refers to the condition which draws the students' attention specifically to the target language. Noticing helps the students be conscious or aware of the relationships between the target language and its context. Discovering refers to the ability to actively work out the relationships between the target language and its context by themselves. Understanding refers to the ability to use what the students discovered to make their own choices regarding the relationships between the target and clue in each context and apply the understanding for other contexts on their own. Below is the theoretical model of this study.

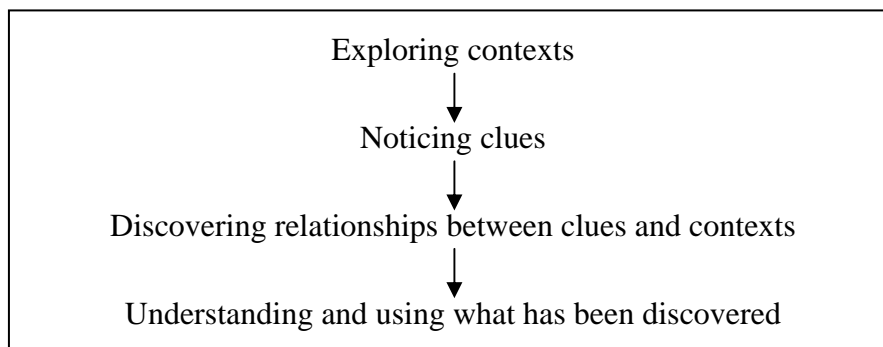


Figure 1 Components of consciousness-raising model

This present study, therefore, aimed to examine the effects of the C-R model proposed above when incorporating with the introduction of computer-assisted program to the teaching of English in order to effectively promote learners' language skill development, with a specific focus on listening skill with the purposes of study below.

IV. Purposes of the Study

This research primarily aimed to empirically examine the effects of consciousness-raising (C-R) instruction on foreign language learners' listening achievement.

As this study was based on consciousness - raising theory and the use of computer-assisted program, the specific purposes of the study centered around the factors that might have effects on learners' acquiring of the target skill. The factors were:

- (a) the presence or absence of the consciousness-raising instruction (CRI)
- (b) the presence or absence of computer-assisted instruction (CAI)
- (c) time constraints
- (d) cognitive load*
- (e) task difficulty

* The operation definition of cognitive load included information processing as shown in the model of study and all training and task conditions assigned to CRI group or experimental group 1.

V. Research Questions and Research Hypotheses

The research question of this study was: Do the different types of exposure to input as manipulated by (a) the presence or absence of the CRI, (b) and the use of CAI, (c) time constraints, (d) cognitive load, and (e) task difficulty have different effects on listening achievement?

There were five hypotheses formulated in this study.

Hypothesis 1: The posttest mean scores on listening skill of the learners who receive the consciousness-raising tasks with task directions to search for the context clues are significantly greater than the posttest mean scores of those who do not.

Hypothesis 2: The posttest mean scores on listening skill of the learners who use computer-assisted program are significantly greater than the posttest mean scores of those who do not.

Hypothesis 3: The posttest mean scores on listening skill of the learners who experience time constraints are significantly greater than the posttest mean scores of those who do not.

Hypothesis 4: The posttest mean scores on listening skill of the learners who experience cognitive load are significantly greater than the posttest mean scores of those who do not.

Hypothesis 5: The posttest mean scores on listening skill of the learners who experience task difficulty are significantly greater than the posttest scores of those who do not.

VI. Population and Subjects

The population of this study was the students who enrolled in the course GE. 2203 (English 3) at Krirk University in the first semester of the academic year 2004. The students who studied abroad, took English as a major, exposed to English outside the classroom, or tried the *TOEIC* test were excluded. The total number of subjects in this study was ninety students from different faculties: business administration, liberal arts, communication arts, law, and economics. These subjects were randomly assigned into three different groups, each of which consisted of thirty students and were taught by the researcher.

VII. Design of the Study

A pretest and posttest experimental design with two experiment groups and one control group was used in this study to collect data on sixteen contents. The three groups were listed below.

Group 1: CRI + CAI group

An experiment group 1 received (a) the CRI with tasks directions to search for a clue or clues, (b) the use of CAI, (c) time constraints, (d) cognitive load, and (e) task difficulty. This group was given listening instruction.

Group 2: CAI - only group

An experiment group received all factors as Group 1, except CRI.

Group 3: Control group

A control group received none of the following as the two experiment groups: (a) CRI, (b) CAI, (c) time constraints, (d) cognitive load, and (e) task difficulty. Since this group was a control group, it was given speaking instruction instead of listening one.

Variables

The variables in this study fell into three groups: independent, covariate, and dependent.

(1) Independent Variables

The independent variables were the instructions whose contents were drawn from **Advanced 1-3** in English Discoveries Program used as computer-assisted program for teaching General English and self-access for all students to practice all four skills with the main focus on listening skill. All listening contents of Advanced 1-3 were drawn from English used in everyday life mainly from TV, radio, and other mass media program, consisting of the following topics: business, family, ads, call, soap opera, music, news, quiz, sports, weather, romance, mystery, and travel. Below were samples of contents in Advanced 1-3.

Advanced 1

Listening: Radio-ads

Are you annoyed by high interest rates? Do you ever need help keeping track of your financial records? Do you wish you could overdraw on your account without seeing your checks bounce? If you answered “yes” to any of the above questions, it’s time for you to check out “Bank - Plus” at ABC Finance Bank. For just a small monthly fee, you’ll get high-quality service to help you manage your bank account. But don’t take it from me. Listen to one of our satisfied customers....

Advanced 2

Listening: Radio-ads

Do you feel like you’ve taken on too much? Are you involved in so much paperwork that you’ve lost sight of your ambitions? Are you disappointed with your current office help? If these questions apply to you, then you need ASSIST. ASSIST Employment Agency understands how you feel and is eager to help. We provide office help: executive secretaries, typists, and a delivery service....

Advanced 3

Listening: Radio-ads

ANNOUNCER: Are you tired of overcrowded urban living? Do you dream of a spacious suburban home? If so, it’s time for you to check out Hillview, an exclusive new community located in the heart of orchard country. Since construction began on Hillview last year, hundreds of families have purchased homes and property here. Hillview is considered to be one of the best real estate investments you can make. Here’s what one of our newest homeowners had to say....

CRI for Experimental Group 1

As this research was designed to study how to use the computer-assisted program more effectively, the CRI in this study was constructed based on the features of the programs but added some theoretical values of consciousness - raising theory to the use of the computer - assisted program. With this objective, the instruction was constructed in order to draw the listeners’ conscious attention to the contents. This CR instruction

was task-based learning, moving from one step to another. The process of the instruction dealt with task difficulty and cognitive load. The process was, therefore, time-consuming. Since this group was designed as an experiment group for verifying the effects of consciousness - raising or noticing in cooperation with CAI on learning. With this consciousness - raising or noticing purpose, an attempt to draw the learners' attention was therefore directed to the clues or clue to the questions within time limits, referred in this study as time constraints which varied according to the length of the listening texts, to focus the learners to the clues and to prepare the learners for all standard tests which time limit is a requirement. In this study, *TOEIC* test was part of treatments for this group. The process of CRI consisted of three steps: before, during, and after the training condition. Each step consisted of these details.

Step 1: Before Training

Before training, the subjects were prepared to focus on these points: (1) people and actions (e.g., what to be noted about the person/ people in the content and what they are doing/ performing/ behaving), (2) people and situations in a specific place (e.g., activities in relation to the place and background and surroundings), (3) people or things and situations in a general place (e.g., activities in relation to the place and background and surroundings), (4) geography (e.g., what the place is and what is in the place).

Step 2: During Training

During the training, the subjects were required to: (1) identify the gist of statement, conversation, and talk; (2) identify people, numbers, date, and time; (3) extract specific factual information; (4) identify speaker roles; (5) identify relationships between ideas or pieces of information such as cause and effect, order of events, and comparison; and (6) determine when a speaker is expressing fact, opinion, or assumption. Also, they were trained to focus on: (1) general questions about the speaker, action, place, and relating topics; and (2) specific questions about time and reasons, plan and problem, idea and suggestion, and opinion. Lastly, they were trained these strategies: understanding the instructions, previewing and predicting, listening for specific information.

Step 3: After Training

They were given a set of questions constructed by the researcher and a clue or clues used for drawing the subjects' conscious attention to the answers of the each question. They first practised the listening instruction, then studied the CR tasks which gave clues to the answers and finally answered the questions. Below were samples of CR task with questions and clues to the answers assigned to Group 1 only.

Below were samples of instruction, questions, clues to answers to the questions, and the answers.

Instruction

Listening: Answering Machine-Business

Hello, Duncan. It's Abe. This is to let you know that we'll be meeting with the clients next Monday and showing them our outline of the project. Since it's easier to focus when there's a visual presentation, I'm going to set up slides to present the information...

Questions

Listening: Answering Machine-Business

Listen carefully, then answer the questions.

1. Who will be meeting with clients?
2. When will the meeting be?
3. What are they going to show?

Clues

Listening: Answering Machine-Business

Notice the underlined clues to the questions mentioned above.

1. Line 2 We'll be meeting with the clients.
2. Line 2 We'll be meeting with the clients next Monday.
3. Line 2-3 We'll be meeting with the clients next Monday and showing them our outline of the project.

Answers

Listening: Answering Machine-Business

Relate the answers given below in relation with the underlined clues mentioned above.

1. Duncan and Abe
2. Next Monday
3. The outline of their project

CAI for Experimental Group 2

Unlike Group 1, the subjects in this group were given no CR training condition before - during - after listening so their instructions consisted of script and question on the listening contents. They first practised the listening instruction and then answered the questions. Below was a sample of instruction for Group 2.

Instruction

Listening: Answering Machine-Business

Hello, Duncan. It's Abe. This is to let you know that we'll be meeting with the clients next Monday and showing them our outline of the project. Since it's easier to focus when there's a visual presentation, I'm going to set up slides to present the information...

Questions

Listening: Answering Machine-Business

Listen carefully, then answer the questions.

1. Who will be meeting with clients?
2. When will the meeting be?
3. What are they going to show?

Speaking Instruction for Control Group

The instruction here was designed for the control group only. In order to examine the effects of CRI and CAI, the contents and skills of this control group dealt with speaking instruction rather than listening instruction. They first practised the speaking instruction, then listened to the script and finally answered the questions. Below was a sample of speaking instruction.

Speaking: Group Therapy Room

- It's well known these days that the man is supposed to help the woman around the house.
- So what exactly do you want me to do?
- I find it hard to believe that you could still be asking that question. We've gone over this a thousand times at home.

(2) *Covariates*

Covariates in this study were pretests, consisting of item-by-item pretest and overall pretest.

The Item-by-Item Pretest

The listening item-by-item pretests drawn from **Advanced 1-3** were designed to test listening comprehension based on guidelines during training. Below was a sample of item-by-item pretests.

Listening: Answering Machine-Family

Listen carefully, then answer the questions.

1. Why does Mom call Gail?
2. Will Gail be satisfied with Mom's deed?
3. What is the "Personals"?

The Overall Pretest

The overall pretests, based on the listening part of TOEIC test, contained short conversation and small talk. The test consisted of 50

questions including short conversation and small talk. Below were samples of overall pretests.

Short Conversation

1. What time is this conversation most probably taking place?

- (A) 1:00 (B) 9:30
(C) 11:00 (D) 11:10

2. Where is this man going?

- (A) To the train station (B) To the dry cleaner's
(C) To his office (D) To the airport

Small Talk

1. Why is everyone leaving the building?

- (A) The store is closing. (B) It is time to go home.
(C) There may be a bomb. (D) Someone was injured.

2. What should the people do?

- (A) Proceed calmly and quickly (B) Run to the nearest exit
(C) Call the police (D) Search for the bomb

(3) Dependent Variables

Dependent variables in this study were posttests, consisting of item-by-item pretest and overall pretest, each of which was constructed in parallel with the counterpart pretests. Below was a sample of item-by-item posttests.

Listening: Answering Machine-Family

Listen carefully, then answer the questions.

1. Who is the caller?
2. Who does the call go to?
3. Why does she call?

Below was a sample of overall posttests.

Short Conversation

1. What is Bob's profession?
(A) Carpenter (B) Butcher
(C) Dentist (D) Psychiatrist
2. Where are they?
(A) In a hotel (B) In a restaurant
(C) In a luggage store (D) At the airport

Small Talk

1. When can interviews be scheduled?
(A) Weekdays (B) Weekends
(C) Every day (D) Afternoon only
2. To whom should applications be given?
(A) Personnel Manager (B) Receptionist
(C) Personnel secretary (D) The guard at the front gate

Data Collection

All three groups followed a pretest-posttest experimental design of data collection, lasting fourteen weeks. In general, the two experiment groups followed these procedures: pretest, task or treatment, and posttest of each point. These groups were assigned to complete the procedures in twenty minutes.

Reliability and Validity

The steps of reliability and validity check of this present study were as follows. First, the instruments which had been constructed based on the purposes of research study were sent to five judges for content validity check. The contents were then adjusted to their advice. Then, these instruments were tried out with thirty students who were the population of the study for construct validity check. Finally, the instruments were tested by Alpha Cronbach Coefficient for reliability check. The result was 0.798, which indicated the moderate reliability.

Scoring Procedure and Data Analysis

The data analysis fell into two parts: scoring procedure and statistical analysis. For scoring procedure, counts of pretest and posttest scores on listening achievement were compared. 1 point was given every time when the subjects could give a correct answer and 0 if they could not. For statistical analysis, mean and standard deviation were used for describing the data and an ANCOVA analysis, chosen for data analysis in this study in order to control extraneous factors (e.g., prior knowledge), performed on the data in order to compare the differences among the three groups.

VIII. Results

A mean and standard deviation were used for describing the data in order to provide an overview for an ANCOVA analysis. The pretest and posttest mean scores and standard deviation of the three groups were shown as follows.

Table 1 Item-by-Item Test of CRI + CAI, CAI-only, control groups on English Discoveries test scores

Content Topics	CRI + CAI		CAI-only		Control Group	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Answering Machine-Business						
-Pretest	0.4915	(0.5042)	0.6825	(0.4692)	0.4655	(0.5032)
-Posttest	0.7119	(0.4568)	0.4921	(0.5040)	0.6207	(0.4895)
Answering Machine-Family						
-Pretest	0.4915	(0.5042)	0.5882	(0.4958)	0.4828	(0.5041)
-Posttest	0.5932	(0.4954)	0.4559	(0.5018)	0.4655	(0.5032)
Ads						
-Pretest	0.3729	(0.4877)	0.3810	(0.4895)	0.4483	(0.5017)
-Posttest	0.6780	(0.4713)	0.5079	(0.5040)	0.5172	(0.5041)
Call						
-Pretest	0.3729	(0.4877)	0.5238	(0.5034)	0.4483	(0.5017)
-Posttest	0.5593	(0.5007)	0.4921	(0.5040)	0.6379	(0.4848)

Table 1 (Continued)

Content Topics	CRI + CAI		CAI -only		Control Group	
	Mean	Std. Deviation	Mean	Std. Deviation	Mean	Std. Deviation
Soap Opera						
-Pretest	0.3729	(0.5036)	0.4762	(0.5034)	0.5172	(0.5041)
-Posttest	0.4746	(0.4877)	0.4127	(0.4963)	0.5517	(0.5017)
Music						
-Pretest	0.5085	(0.5042)	0.5079	(0.5040)	0.5517	(0.5017)
-Posttest	0.6102	(0.4919)	0.4444	(0.5009)	0.5862	(0.4968)
News						
-Pretest	0.4576	(0.5025)	0.5714	(0.4988)	0.4138	(0.4968)
-Posttest	0.6780	(0.4713)	0.5079	(0.5040)	0.5345	(0.5032)
Quiz						
-Pretest	0.5254	(0.5036)	0.4603	(0.5024)	0.4310	(0.4995)
-Posttest	0.6102	(0.4919)	0.3492	(0.4805)	0.5172	(0.5041)
Sports						
-Pretest	0.5593	(0.5007)	0.5397	(0.5024)	0.5517	(0.5017)
-Posttest	0.6949	(0.4644)	0.5238	(0.5034)	0.4828	(0.5041)
Romance						
-Pretest	0.4237	(0.4984)	0.6349	(0.4853)	0.3966	(0.4935)
-Posttest	0.6102	(0.4919)	0.3968	(0.4932)	0.5172	(0.5041)
Weather						
-Pretest	0.4746	(0.5036)	0.4762	(0.5034)	0.5345	(0.5032)
-Posttest	0.6949	(0.4644)	0.3492	(0.4805)	0.5000	(0.5044)
Mystery						
-Pretest	0.5593	(0.5007)	0.6349	(0.4853)	0.5690	(0.4995)
-Posttest	0.6102	(0.4919)	0.5714	(0.4988)	0.5517	(0.5017)
Travel						
-Pretest	0.3390	(0.4774)	0.5397	(0.5024)	0.4483	(0.5017)
-Posttest	0.6780	(0.4713)	0.4286	(0.4988)	0.6034	(0.4935)

Table 1 presents the means and standard deviations for item-by-item test for the listeners' scores on the English Discoveries test. The results revealed that the posttest mean scores of all groups in all content areas drawn from the *English Discoveries Program* were higher than the pretest mean scores. Interestingly, there were differences in details concerning the differences in content areas. The posttest mean scores on *sports* and *mystery* were ranked from the highest to the lowest: the CRI + CAI group, the CAI-only, the control group respectively. The posttest mean scores on *business, family, ads, music, news, quiz, romance, weather, and travel* were ranked from the highest to the lowest: the CRI + CAI group, the control group, and the CAI-only respectively. The posttest mean scores on *call* and *soap opera* were ranked from the highest to the lowest: the control group, the CRI + CAI group, and the CAI-only respectively. The posttest mean scores on were ranked from the highest to the lowest: the control group, the CAI-only, and the CRI + CAI group respectively.

In order to verify the effects of CRI and CAI on listening achievement, in parallel with the *Discoveries Program* test, this study used the *TOEIC* test for the purpose. However, the results of the *TOEIC* test were not consistent with the results of the *Discoveries Program* test and there were some interesting differences. Below were the results of *TOEIC* test.

Table 2 Overall posttest mean scores of CRI + CAI, CAI - only, control groups on TOEIC test

Score	CRI + CAI	CAI- only	Control
<i>TOEIC</i> test	28.7333 (5.35584)	18.0667 (4.17656)	11.0333 (2.89451)

Table 2 presents the means and standard deviations for item-by-item test for the listeners' scores on the *TOEIC* test. The mean scores indicated that the CRI + CAI performed significantly better than the CAI-only and control group and the CAI-only performed slightly better than the control group. The ANCOVA analysis on the total score on posttest yielded a significant main effect for CRI + CAI, $F(3, 30) = 24.472$, $p < 0.005$, for CAI-only, $F(3, 30) = 3.643$, $p < 0.005$, and $F(3, 30) = 4.485$, $p < 0.005$. The effect of the interaction between pretest and posttest of the groups was statistically significant.

Interestingly, the results of *TOEIC* test were consistent with those of *English Discoveries* in that the CRI + CAI group performed significantly better than the CAI-only group and the control group. However, there is a major contrast in that, in *English*

Discoveries test, the control group performed slightly better than the CAI-only group whereas, in the *TOEIC* test, the CAI-only group performed better than the control group. This contrast might be a result of the fact that, since the *TOEIC* test was on listening, the CAI-only group receiving listening instruction performed better than the control group received speaking instruction.

The main concern of this study focused on the effects of the CRI and CAI on learners' listening achievement. Other concerns centered around relating factors concerning consciousness-raising which might have effects on language acquisition including the presence or absence of task directions to search for a clue or clues, time constraints, cognitive load, and task difficulty. As this study was set out to determine whether or not the two instructions had significant effects on L2 learners' listening skill which should be verified by standard tests. The discussion of all research questions was therefore primarily based on the performances on the *TOEIC* test.

Research Question: Do the different types of exposure to input as manipulated by: (a) the presence or absence of CRI, (b) the presence or absence of CAI, (c) time constraints, (d) cognitive load, and (e) task difficulty have different effects on the learners' listening achievement?

Hypothesis 1: The posttest mean scores on listening skill of the learners who receive **CRI** with task directions to search for the context clue or clues are significantly greater than the posttest mean scores of those who do not.

The posttest mean scores on listening of the learners who received CRI + CAI (28.7333) were significantly greater than those of the CAI-only (18.0667) and the control group (11.0333). Therefore, this hypothesis is retained. The results revealed that **CRI** had effects on the learners' listening achievement.

Hypothesis 2: The posttest mean scores on listening skill of the learners who use **CAI** are significantly greater than the posttest mean scores of those who do not.

The posttest mean scores on listening of the learners who received CRI + CAI (28.7333) were significantly greater than those of the CAI-only (18.0667) and control group (11.0333). The posttest mean scores of the CAI (18.0667) were slightly greater than those of the control group (11.0333). Therefore, this hypothesis is retained. The results revealed that **CAI** had effects on the learners' listening achievement.

Hypothesis 3: The posttest mean scores on listening of the learners who experienced **time constraints** were significantly greater than the posttest mean scores of those who do not.

The posttest mean scores on listening of the learners who received the CRI + CAI (28.7333) were significantly greater than those of the CAI-only (18.0667) and control group (11.0333). Therefore, this hypothesis is retained. The results revealed that **time constraint** had effects on the learners' listening achievement.

Hypothesis 4: The posttest mean scores on listening skill of the learners who experienced **cognitive load** were significantly greater than the posttest mean scores of those who do not.

The posttest mean scores on listening of the learners who received the CRI + CAI (28.7333) were significantly greater than those of the CAI-only (18.0667) and control group (11.0333). Therefore, this hypothesis is retained. The results revealed that **cognitive load** had effects on the learners' listening achievement.

Hypothesis 5: The posttest mean scores on listening skill of the learners who experienced **task difficulty** (e.g., task directions to search for the context clue or clues) were significantly greater than the posttest scores of those who do not.

The posttest mean scores on listening of the learners who received the CRI + CAI (28.7333) were significantly greater than those of the CAI (18.0667) and control group (11.0333). Therefore, this hypothesis is retained. The results revealed that **task difficulty** had effects on the learners' listening achievement.

IX. Conclusion

Overall, the present study indicated that the two different teaching conditions- the CRI + CAI and the CAI-only have different effects on listening achievement. The higher performances of the CRI + CAI over the CAI-only may result from consciousness-raising. The study also showed that CAI without effective theoretical guidance (for example, consciousness-raising theory in this study) cannot produce significant effects on listening achievement since the scores of the CAI-only were only slightly higher than those of control group on the *TOEIC* test and lower than those of control group on the *English Discoveries* test. The conclusion drawn from

this is that CAI-only is not sufficient for listening development but CAI with effective theoretical guidance (for example, CRI + CAI in this study) is needed for listening development since having the students listen to the target language just as what have been done in the CAI-only is not enough since perceiving or unconsciously listening is not always noticing or consciously listening which leads to understanding or skill. Therefore listening to the target language alone without drawing the learners' attention to the target language may not lead them to listening development. It is necessary to construct the task which can help them notice or consciously listen to the target language in order to understand and be able to relate the target language they discover which can lead to the development. Also, the results, which showed that the CRI enhanced noticing, indicated that the greater performances than the CAI-only and control groups may result from time constraint, cognitive load, and task difficulty. These three factors, which were put into the CRI group, showed that they had effects on development. In short, the results of this study render support to theory of consciousness-raising in that: (1) consciousness plays a crucial role in skill-getting; (2) language skill-getting takes place at the conscious level; (3) consciousness is of great use in skill-getting; and (4) consciousness plays a significant role in language learning at the conscious level.

X. Discussion

The results are consistent with those of Bialystock (1991). In the study, consciousness-raising, or drawing learners attention to the formal properties of language, facilitates language learning effectively. The results are also consistent with those of Schmidt (1993). In Schmidt's study, the results reveal that consciously attending to and noticing specific aspects of the target language is the first thing in learning.

However, the results of this study conflict with those of Tomasello and Villa (1994). In their study, detection needs the learners' attention in order to make accessible the key information of what they are learning but detection does not necessarily need consciousness. In this present study, the learners use information they detect to gain access to the key of whatever they are detecting. When the learners, while detecting, consciously notice or pay attention to what they are learning, learning is likely to be more effective. The results reveal that the students need to consciously pay attention to what they are learning in order to notice the

relationship between the target language and context. While noticing, they need to incorporate detection to learning. These differences may result from how consciousness is measured since these studies employed different measures.

On the effects of input, the results of this study, together with those of VanPatten and Cadierno (1993), Doughty (1991), Fotos and Ellis (1991) and Fotos (1993), Crookes (1989), Foster and Skehan (1996), and VanPatten (1996) revealed that C-R instructions are very useful for language processing and learning. For example, in the study by VanPatten and Cadierno (1993), when measured by a comprehension test, the two treatment groups outperformed the control group and the experimental group outperformed the traditional one, and that, when measured by a production test, the two treatment groups outperformed the control group again. These research studies indicated that developing input-processing skills is a feasible pedagogic strategy, and that input processing can be directed towards the target language. Crookes (1989) suggested that the consequences of a limited-capacity attentional system are apparent again, only this time the limited attention is directed to complexity, not accuracy, and that different pedagogic goals can be associated with different methods of organizing language work in class. VanPatten (1996) revealed that the processing approach is compatible with some clear pedagogic goals and suggests the usefulness of training language learners in effective processing, to make them more able to notice relevant cues in the input so that form-meaning links are more likely to be attended to.

On task difficulty, the results of this present study were consistent with those of several studies. Candlin (1987), for example, suggested a set of criteria by which tasks might be selected and graded. First, cognitive load should be taken into consideration. This concerns the general complexity of the content of the task, including the naturalness of the order it may be required to follow and also the number of participants or elements. Next, communicative stress is important. More stressful tasks are seen as those which involve pressure which comes from the interlocutor, either because he or she is a native speaker or because of superior knowledge or proficiency. Then, particularity and generalizability are necessary. This concerns the clarity of the goal of the task, as well as the norms of interpretation. Code complexity and interpretative density are essential. The former concerns the complexity of the linguistic code itself, while the latter is concerned with the complexity of the operations which need to be carried out on such a code. The last criteria is process continuity. This derives from the familiarity of the task type as

well as the learners' capacity to relate the task to tasks they are familiar with. Similarly, Berwick (1993) suggested that, first, tasks should have goals with clear didactic function. Second, task processes should be more concrete in nature on more abstract information which may be the basis for generalizations and decontextualized language use (Cummins 1984). Unlike Pica, Kanagy, and Falodun (1993) and Duff (1986), Berwick (1993) is more concerned to explore different types of language associated with tasks which contain different combinations of qualities and the tasks should be on an empirical basis.

The results of this study lent empirical support to the arguments previously mentioned and for providing comprehensible input and also for promoting comprehended input in instructed L2 environments. The greater the level of consciousness-raising, the greater the chances of successful learning of a target language in context. Thus, practitioners need to design activities with tasks that promote consciousness-raising of the clues necessary for successful learning of a target language in context at the micro and macro level.

The results of this present study were similar to those of Doughty's (1991) study. There was no meaning-oriented group in the present study, which focused on explicit learning, consisting the rule-oriented groups only, either with or without directions to search for a rule or rules. Doughty found that implicit learning promoted comprehension learning.

Similarly, this present study was similar to that of Fotos and Ellis (1991) and Fotos (1993) who found that there was very little difference between the traditionally instructed group and those students who had been exposed to the C-R activities (tasks which draw attention to a particular form, but giving no explicit information), suggesting that traditional form-oriented instruction is not the only way in which noticing can be triggered and made more likely.

Robinson's (1995) investigation did not find a significant contrast between the instructed and the rule-search conditions; in other words, the difference in improvement from the pretest to the posttest between the two experimental groups (the group with instruction but without the rule-search conditions and the group with the rule-search conditions but without instruction groups) was not statistically significant. The results of the present study were both consistent and inconsistent with those of Robinson. Like Robinson's findings, this study found no significant differences between the

two experimental groups (the CRI+CAI group and the CAI-only group) on the *Discoveries Program* test, which was based on various contents (e.g., news, romance, and mystery). Unlike Robinson's findings, this study found significant differences between the two experimental groups (the CRI+CAI group and the CAI-only group) on the *TOEIC* test, which was based on business content only. The variety of contents might more or less have an impact on the different results of the two tests in this study. Also, the various contents might account for the different findings of this present study and those of Robinson since Robinson's investigation was based on one kind of content and did not include the variety of contents.

However, the results of the present study were inconsistent with those of Alanen's (1995) study, who studied the effects of (1) the presence of formal instruction with explicit rule presentation and (2) textual enhancement without formal instruction on learning and discovered that the presence of formal instruction with explicit rule presentation had a significantly stronger impact on learning than textual enhancement without formal instruction. This present study was similar to Alanen's in that both studies examined that the effects of formal instruction with explicit rule/clue presentation. In brief, the effects of formal instruction were the focus of the both studies. However, there was a major different. Since the present study examined the effects of (1) the presence of formal instruction with explicit clue presentation or CRI and (2) CAI on learning, the other experimental group of Alanen's study examined the effects of textual enhancement without formal instruction on learning whereas the other experimental group of this present study examined the effects of CAI on learning. With the same focus, the results of this present study were inconsistent with those of Alanen's. This present study found that there were no significant differences between the CRI group, which presented formal instruction with explicit clue presentation, and the CAI group on the *Discoveries Program* test. This revealed that the presence of formal instruction with explicit rule presentation or the CRI group had no stronger impact on learning than the CAI group which was without CR formal instruction. These findings were therefore in contrast with those of Alanen's.

This present study was also different from VanPatten's (1990) study which revealed that where processing resources are limited and meanings are more important than form, tasks which interfere least with processing would produce higher comprehension scores than tasks with interference which focus on form. However, this present study revealed that the CRI group, which presented formal

instruction with explicit clue presentation and was therefore based on information processing produced higher comprehension scores than the CAI group which was without CR formal instruction and was not based on information processing. However, this present study was similar to another study of VanPatten and Cadierno (1993) who found that the experimental groups outperformed the traditional one, when measured by a production test and by a comprehension test.

Similarly, the results of this study differed from those of Doughty (1991) who found that the two experimental groups, either meaning-oriented or rule-oriented, outperformed the control group, when measured by a structure test and by a comprehension test. Of the two experimental groups, the meaning-oriented group outperformed the rule-oriented one, when measured by a comprehension test, indicating that implicit learning can be comprehension driven.

The present study disagreed with Crookes's (1989) study. Crookes found that the group with planning time made the task more complex and thus did not achieve greater accuracy. In contrast, this present study found that the CRI group with planning time and time limit which made the task more complex produced higher scores on *TOEIC* test than the control group which had no planning time and time limit. Similarly, the present study agreed with that of Foster and Skehan (1996). Foster and Skehan found that the planning conditions generated scores significantly different from one another, with the strength of the effect of planning being greater for the narrative and decision-making tasks than for the personal task. This present study also found that the planning conditions generated scores significantly different from one another, with the strength of the effect of the CRI group being greater than that of the CAI group and that of the CAI group being greater than that of the control group.

The results of this present study were inconsistent with that of Mehnert (1998) in that there was a significant difference between the one, five, and ten minute conditions. A contrasting pattern was found with the complexity measure, with no significant difference between the zero, one, and five minute conditions, but with all of these significantly different from the ten minute condition.

The results suggested that, when faced with limited attentional resources for speech production, second language speakers who were given planning time channel this resource initially to accuracy and fluency, and only later towards attempting

more complex interpretations of tasks. In retrospect, it may be fortunate that previous researchers did, indeed, take ten minutes as the operationalization of planning time.

The results of the present study were consistent with the results of the earlier study of Skehan and Foster (1997) which revealed that there was a clear effect with the planning group outperforming the non-planners on accuracy measures. The results of this present study also revealed that the CRI group and the CAI group which were with planning outperformed the control group which was without planning, suggesting that planning had a strong impact on learning.

For task-based instruction and task difficulty, this study confirmed Candlin (1987) in discovered that: (1) cognitive load should be taken into consideration; (2) communicative stress is important; (3) particularity and generalizability, concerning the clarity of the goal of the task are necessary; (4) code complexity, concerning the complexity of the linguistic code itself, and interpretative density, concerning complexity of the operations which need to be carried out on such a code, are essential; and (5) process continuity, which derived from the familiarity of the task type as well as the learners' capacity to related the task to tasks they are familiar with, is important.

To conclude, this present study investigation, which sought to test the effectiveness of a pedagogical intervention in promoting listening development through consciousness-raising theory and the use of computer-assisted program which was newly introduced to English teaching in this university, found some obvious implications mentioned below.

XI. Implications

This present study provided the following implications. First, the findings revealed whether the consciousness - raising task incorporating with the computer - assisted program improved the learners' listening skill development. Then, the findings revealed whether the training supports the theoretical and empirical findings of prior studies. Next, the findings rendered the features of effective instruction for listening development. Also, the findings rendered the new types of effective strategies for teaching listening to EFL adult learners.

XII. Pedagogical Recommendations

The strategy rendered can be applied to other areas of language study as it deals with language contexts. In addition, the strategy encouraged the learners to use skill getting more frequently and this will certainly result in greater communicative competence. Then, the learners will be able to communicate in the spontaneous situation. Next, the findings could be applied to advanced English and autonomous learning. Also, the study improved the teaching of English to a higher standard and the learners became more independent and improve their language skills and use the computer-assisted program by themselves. Finally, the study developed instructors' listening teaching skills.

XIII. Limitations

The findings of this research study were limited at least to these three issues. First, they were limited to the subjects with a profile similar to those who participated in this study. Different learners have different learning styles, which have more or less effects on L2 acquisition. The study on the subjects with different learning styles may result in different findings. Next, the findings of this study were limited to the target language contents under this study, consisting of answering machine-business, answering machine-family, ads, call, soap opera, music, news, quiz, sports, romance, weather, mystery, and travel. The findings of this study were limited to the clue or clues identical with or similar to the ones tested in this present study. Different target language and different clues may result in different findings. Finally, the findings of this study were limited to the situational context with a profile similar to the context of this study. Different situational contexts influence L2 learning. The contexts which provide the learners opportunity to practice L2 outside the classroom will certainly result in a more fruitful acquisition. The contexts which provide the learners opportunity to practice L2 independently and produce it spontaneously in genuine communicative situation will certainly result in a more productive learning, which finally leads to autonomous learning.

XIV. Recommendations for Further Studies

For the future inquiry, the future study may replicate this present study in order to find out whether or not the findings of the future study agree to those of the

present study, either with or without the same testing points. Also, the future study may investigate the effects of the consciousness-raising task with other language skills. The limitations mentioned above should also be proved. The future inquiry should replicate the present study with: (1) different subjects, (2) different contents, (3) different language targets with other skills, and (4) various situational contexts in order to verify whether or not the conscious-raising task generates similar findings.

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