

CHAPTER THREE

METHODOLOGY

In order to find out the effect of applying authentic radio broadcast on EFL senior high school learners' listening comprehension, the study utilizes both quantitative and qualitative research methods to analyze the results. Description of the subjects and their personal profile is provided in the first section. The second section presents the instruments used in the research. The conducting of the pilot study for revising, including materials selected, test questions design and the feedback questionnaire, is described in the third part. The fourth section exemplifies the texts and designed tasks of the selected broadcast materials while the whole procedure of conducting the present study is elucidated in detail in the final section.

3.1 Subjects

The subjects involved in the study are an experimental class¹ with 41 (20 females and 21 males) in the first year in Taipei Municipal Da Chi Senior High School. They are on the average age of 15. The subjects are given the standard intermediate GEPT² listening comprehension test as a pretest in the beginning of the

¹ One qualification required for this class of students is based on the results of Senior High School Entrance Examination with a cut score of 251, which is, on the average, the top 12% of the total population of the freshmen students in Da Chi Senior High School.

² The General English Proficiency Test (GEPT), developed by the Language Training and Testing Center (LTTC) in Taipei, is a systematic and standardized test designed to evaluate five distinctive levels of English learners with a fair and reliable English proficiency assessment instrument. The test for each level is conducted in two stages: listening and reading as the preliminary test, while speaking and writing as the subsequent test. The present study adopted the listening comprehension part for the **intermediate level**, which is the real test held by LTTC in 2000.

fall semester in 2002. Based on the result scores, the subjects are divided into three levels—high, middle, and low. The GEPT listening comprehension test is composed mainly of three sections: identifying meanings through pictures, questions and answers, and short dialogues. The test score for the test is 120 points with 15 test items in each section. Students should answer all the questions within 30 minutes. After the pretest, 17 students who get the score above 80³ are placed as high-proficiency (**H**), another 17 students who score between 60 to 80 are placed as middle-proficiency (**M**), and the other 7 scoring below 60 as low-proficiency (**L**). Table 3-1 shows the distribution of each level.

Table 3-1 The Distribution of Proficiency Level

Level	H	M	L
Numbers of Subjects	17	17	7
Percentage	41%	41%	17%

3.1.1 Personal English Learning Experience

The subjects in the present study are also asked to write an open questionnaire, referred to the research of Teng (2002), as a personal profile for a better understanding of their previous English learning background, including their English learning experience, environment for English learning and preferences in English learning, as shown in the following Tables.

³ According to the GEPT, the criterion for passing the listening comprehension part is 80.

Table 3-2 Years of Learning English before Entering Senior High School

Years	3	4	5	6	7	8	9
Numbers of Subjects	9	8	8	6	7	0	3
Percentage	22%	19%	19%	14%	17%	0	7%

Table 3-2 shows that 22% of the subjects have learned English for three years, that is, they started their English learning in junior high school. One of the students in this group is a Japanese, who came to Taiwan with her parents three years ago. Her father is a Japanese and mother a Chinese. She has a good command of both Japanese and Mandarin, but not of English. According to the credential she submitted to the school, she has learned English for three years in Taiwan. On the other hand, seventy-six percent of the subjects started their English lessons in their primary school years. On the average, the students have learned English for at least 5 years before entering senior high schools.

Table 3-3 Experience of Learning English Abroad

Experience	Never	English-Speaking Countries	Other Areas
No. of Subjects	24	13	4
Percentage	59%	32%	9%

Since English is an international language, most students consider going abroad as one of the alternatives to polish their English proficiency. While most of the subjects have taken English lessons since their primary school years, as shown in Table 3-3, 59% of the subjects have never been abroad. Nevertheless, 32% of the subjects do have experience going abroad through study tour to English-speaking countries for one to two months, and some of these subjects have even spent three to

four summer vacations on study tours abroad. As mentioned earlier, one student is a Japanese, who is categorized into the group of **Other Areas**. She goes back to Japan annually and in a way hears another form of English. Therefore, a total 9% of the subjects consider that traveling to other countries provide a chance for them to listen to English.

Table 3-4 Environment for English Learning before Senior High School

Environment	Kids' Language Institute	Afterschool English Classes	Tutors	Others
No. of Subjects	29	9	2	1
Percentage	71%	22%	5%	2%

The subjects have acquired their English proficiency in various kinds of environments other than schools, as shown in Table 3-4, before entering senior high school. Seventy-one percent of the subjects start learning their English in their elementary school days in language institutes for kids such as Hua Language Institute, Mo David Language Institute, the Hess, or Sesame Street. Some of them continue polishing their English in cram schools after entering junior high school, but the exact number of these students is not provided in this table. Nine percent of the subjects, categorized as **Afterschool English Classes** as shown in Table 3-4, are those who started learning English when they entered junior high school. While 5% of the subjects, two students, have been learning their English from native speakers as their tutors since their primary school years. One subject shown in the category of **Others** expresses that she learns English only in school, and doesn't like to go to any after-school classes. Whenever she has questions, she would turn to her parents for help.

3.1.2 Sources in English Learning

Students' interest should always be taken into consideration for teachers to design effective learning activities. On the other hand, it is better for teachers to know students' least interest in English learning and delay complicated discourse or skillfully integrate some of them into curriculum design, if possible, for fear that students won't learn the essential components of the language, such as vocabulary, grammar and sentence patterns.

The tables below show the results derived from a free questionnaire showing the interest and least interest of students in English learning.

Table 3-5 Sources of Interest in English Learning

Types	Songs	Movies	Conversations	Stories	Travelling	Others
No. of Subjects	14	9	10	1	1	6
Percent	34%	22%	24%	2%	2%	14%

As seen in Table 3-5, the most popular sources for them to learn English in the priority order are songs, conversations⁴, and movies, totally accounting for 80%. The data strongly support the present research in the use of authentic broadcast materials, which often contain popular songs, movies, topics about singers or movie stars and authentic conversations.

⁴ According to students' explanations, compared to the complicated discourse of written texts for reading, conversation discourse is much easier. The category **Conversations** include listening to daily conversations by native speakers and speaking to foreigners in English.

Table 3-6 Sources of Least Interest in English Learning

	Vocabulary	Grammar	Writing	Reading	Nothing Special
No. of Subjects	10	23	3	1	4
Percent	24%	56%	7%	2%	8%

As shown in Table 3-6, obviously, a percentage up to 56% and 24% of the subjects don't like traditional grammar and vocabulary teaching. Although vocabulary and grammar are essential to ESL learners, the table above proves that there is a need for teachers to explore some more interesting and integrated materials to motivate students' learning in enhancing those least interest but important factors in English learning.

3.2 Instrumentation

The instruments applied in the investigation include equipment for recording, environment for conducting the research, tests and a feedback questionnaire.

The tape recorder used is at first LUCKY TRC- 964, but Panasonic RX-ED707 Portable Stereo CD/Cassette, for better sound quality, later replaces it.

For convenience sake, the experiment is conducted mostly in the classroom unless there is a need for using the laboratory, equipped with BXB WMP-2000/00 Micro Computer Language Laboratory System, which provides each listener a pair of good-quality earphones.

In addition, five more instruments are employed in the study: (1) a standardized listening test (i.e. the GEPT listening test part for intermediate level, 2000); (2) a

personal profile for further understanding of their learning background and experience in English (shown earlier in the previous section), (3) listening materials recorded from ICRT, which will be described more in section 3.3, (4) listening comprehension quizzes, and (5) a feedback questionnaire with three separate parts.

3.2.1 Listening Comprehension Quizzes

The quizzes are composed of four different test types, including blank-filling, true or false statements, multiple choices and cloze tests. The questions are designed and randomized by the researcher based on the proficiency of the subjects, the difficulty and complexity of the authentic listening texts and time allotted as well.

3.2.2 The Feedback Questionnaire

After several discussions with some experienced senior high school English teachers and a pilot study conducted among 9 subjects with different proficiency levels, the feedback questionnaire is composed mainly of three parts: (1) eleven items on a 5-point Likert scale of frequency with degrees of agreement to elicit subjects' views on adopting ICRT (International Community Radio Taipei) as listening comprehension supplement; (2) three questions about views on different task types; (3) an open-ended question for opinions or suggestions on the listening comprehension supplementary activity.

3.3 The Pilot Study

After some of the authentic materials were recorded from ICRT, the researcher of the present study designed some quizzes of different task types based on the selected materials and a feedback questionnaire, and then administered them to 9

subjects with different proficiency levels (3H, 3M, 3L)⁵. The purpose of the pilot study was to see if the recorded authentic materials were clear enough for students to grasp and to ensure the designed quizzes and questionnaire would be understandable for them. Afterwards, some revision was done based on the suggestions given by the subjects of the pilot study.

3.4 Materials

The materials applied in the present study are authentic broadcast programs recorded prior to actual execution from the radio station ICRT. As mentioned earlier in the first chapter, some of the GEPT's goals of listening proficiency for the intermediate level are "generally being able to understand announcement in public, weather reports and commercials." After much monitoring and listening, the materials are mainly focused on the four units comprising weather forecasts (two pieces of local weather reports and one global), commercials, special topics—Guide to Study, Artist of the Week, and Easy News. In order to increase the intensity of challenge, the materials are arranged, if possible, in the order of difficulty, length and complexity, that is, from easier to harder, and shorter to longer. In what follows, each unit of the selected authentic material, the reasons for selecting them and the design of related tasks are explained with the weather forecast taking the lead.

⁵ H stands for high-proficiency level, M middle-proficiency level, while L low-proficiency level.

3.4.1 Weather Forecast

The ICRT weather forecast is broadcast several times every day from 7:00 a.m. to 6:30 p.m., with some news and commercials broadcast during intervals. The weather forecast focuses on local weather, which lasts for about 40 seconds. Male and female announcers take turns in broadcasting the weather reports. In addition, some programs, rather than news, such as Richi Walker's Morning Show, also broadcast weather reports, both local and global.

3.4.1.1 Texts : Content of the Selected Weather Forecast

Three authentic weather forecasts are extracted in the present research, two of which are local and the other one global. The material used firstly is a local weather forecast aired by Emily at 7 a.m. on the 16th of October, which lasts for about 35 seconds. The very same material is used in class on that day to give students the feeling of authenticity. Likewise, the second weather forecast text is local (20 sec.) and the third is global (2 min.), both of which are recorded from Richi Walker's Morning Show. The latter features on major cities of the world. Generally speaking, he speaks much faster and in a more casual way than Emily. Moreover, other than announcing the weather forecast, he often gives reminders to his audience, such as, "If you're going for a vacation to Mt. Ali, you'd better bring a jacket with you," or "Let's now move on to ..."

The reason for choosing different announcers of different genders is to acquaint students with various speed, tempo and pitch of speakers of the English language. This is in consonance with what is previously discussed in Chapter Two, a truly authentic material that conforms both to its features and values. All the weather reports are disseminated at least three times for students' total understanding.

3.4.1.2 Tasks: the Quizzes

Knowing the subjects' limited exposure to authentic materials, the author deems it necessary to design such test questions as filling the blanks (See Appendix A, B and C), which focus on weather conditions—cloudy, clear, fair, rainy, etc., and temperature, expressed in either Centigrade degree or Fahrenheit degree. Vocabulary needed and abbreviation with their corresponding meanings are also provided in the test sheets. At the same time, names of broadcast geographical locations are presented and arranged on the chart in the order as they are broadcast. A simplified world map is also provided as reference for names of foreign places. Thus, the design of the task questions aims at identifying words through sound discrimination.

3.4.2 Radio Commercials

Daily radio commercials on ICRT have diverged topics which are related to our daily life. Since commercials of this kind are usually sponsored by some business companies, more often than not, the announcers are chosen from the cream of all. It goes without saying that they should possess a very good articulation and a very expressive voice in English. Coupled with the right choice of background music, the commercials should be quite interesting, lively and captivating to the general public, which in turn intensify the audience's retention because the same one are repeatedly broadcast in a day. Commercials broadcast several times would also enhance opportunities for students to fully understand the contexts, and intensify their listening comprehension.

3.4.2.1 Texts: Content of the Selected Radio Commercials

The present study aims at using authentic broadcast as supplement for listening comprehension materials. Thus, of the two radio commercials, one is an extract from Chunghua Telecom to match Lesson 5—Telephone Conversation—of the subjects' textbook, Far East Book 1. The other is a commercial from McDonald's, to go with Lesson 10—Eating Out.

The first commercial is about a mother calling her son through an overseas call, reminding him to regularly take his medicine (See Appendix D). In the succeeding statement Chunghua Telecom introduces its commercial by offering a special discount when anyone makes an overseas call. The voices of the speakers are so highly unaffected and natural that one could almost feel it is a real-life situation.

The second commercial is about the famous DJ Dennis Nieh, hosting the live show at one of the outlets of McDonald's near Taipei City Zoo, followed by a commercial about a special discount at McDonald's. The commercial is selected as supplement because Dennis Nieh is a popular announcer and celebrity among Taiwan students. Hence, this, in one way or another, will help motivate students' learning interest.

3.4.2.2 Tasks: the Quizzes

The length of both the selected commercials are short, lasting only for about 30 seconds. The design of task questions are five multiple choices followed by a cloze test. Multiple choices pertain to training students to grasp the gist of the commercial broadcast, while the cloze test is for students to know more details about the content of the commercial. New words in the cloze test are highlighted to strengthen students' recognition of them. The blanks are randomized, based on the rational cloze test

theory⁶ (Chapelle & Abraham, 1990) with the writer's objectives—focusing on the extensive use of numbers⁷ and the vocabulary the students have learned in their junior high school.

3.4.3 Special Topics

Every now and then ICRT explores some practical special topics, such as *Great Idea, Earth and Sky, To Your Health, Guide to Study, and Artist of the Week*. Chinese translations are provided at intervals because the special topics are quite lengthy. Most of the special topics are sponsored by business companies, and hence, the speakers broadcasting them are the best-picks. The voice of the speakers in special topics is not that dramatic and exaggerated as that in commercials and the tempo is more unison throughout the broadcasting.

3.4.3.1 Texts: Content of the Selected Special Topics

As shown earlier in Tables 3.3 and 3.5, most of the subjects have experience participating in study tours to English-speaking countries and enjoy listening to English songs. Therefore, the special topics chosen in the present study are *Guide to Study in Britain* and *Artist of the Week*, to link with their previous experience and interest.

Guide to Study in Britain provides students with the information needed for studying abroad in Britain, sponsored by Ni-chai Consultant Company for Studying Abroad. It is treated as two independent entities in the present study, namely the introduction and body, because the introduction part (see Appendix F), a total length

⁶ The **rational cloze test theory** enables test designers to delete words flexibly for measuring the language traits.

⁷ The **extensive use of numbers** indicates any broad usage concerning numbers, such as time, days of the week, dates, weather temperature and telephone numbers.

of 36 seconds, is very similar to that of a commercial, informing the audience of when it would be broadcast.

The body (see Appendix G), a total length of 68 seconds, gives the audience a detailed information and other precautions about studying in Britain.

The special topic *Artist of the Week* (see Appendix H) introduces one artist a week, mostly singers. Maria Carrie, with a glimmering career and winner of several Grammy Awards, is employed as the other special topic in this research.

3.4.3.2 Tasks: the Quizzes

The first special topic, the introduction of *Guide to Study in Britain*, is designed for cloze test (Appendix F). New words and useful phrases are listed on the listening comprehension sheet with the corresponding meaning in Chinese. The blanks are also randomized, focusing on content words, including extensions of numbers and vocabulary students have learned. Only few function words are designed to test their competence in linking.

The second and third *Guide to Study* (see Appendix G) are designed as true or false statements and multiple choices, which aim at testing students in their understanding of the whole texts, knowing the synopses of the articles.

3.4.4 Easy News

Easy News is an innovating program during the second-half of the year. With a view that the demand of English is tremendously increasing in Taiwan, ICRT programs lower their pace of announcing news and use simpler words to appeal to a wider range of audience, especially high school students. It is aired three times a day, one at 10 a.m., another at 4 p.m., and the other at 8 p.m. Moreover, the website of

ICRT provides the scripts for the day and audience can easily download both the text and the audio portion for free. Generally speaking, high school students tend not to listen to English news for they could hardly understand what is broadcast. Therefore, the ICRT program has tried to take all these problems into consideration, making it possible for high school students to comprehend what is broadcast on *Easy News*. This, undoubtedly, provides students another channel for polishing their English listening comprehension.

3.4.4.1 Texts: Content of the Selected Easy News

The selection of Easy News is based on student's interest and life experience. One is a scandal about a Hollywood celebrity, Russell Crowe, an Academy Awardee for Best Actor, fighting with a multi-millionaire New Zealander, Eric Watson (see Appendix I). The total length of the news is about 25 seconds. The other is about the purchase of airline tickets during the Chinese Lunar New Year (see Appendix J, teacher's edition). Since the present study is done towards the end of the first semester, near the Chinese Lunar New Year, such selection is related to their experience in the real world.

3.4.4.2 Tasks: the Quizzes

The design of the task questions in Easy News is exactly the same of commercials, that is, multiple choices followed by cloze tests. However, the former focuses on the understanding of wh-questions and the latter on vocabulary and phrases learned. This is deliberately done for variation.

3.5 Procedures

The procedure for the present study involves the following sequences.

Before administering the study, the subjects were asked to fill out a personal profile designed to get the subject's personal background information concerning the experience and interest in English learning. Soon after that, the listening comprehension section of a standardized English proficiency test—GEPT in 2000 was conducted to group the subjects into three proficiency levels. There were 17 out of 41 leveled as the high-proficiency (**H**) with a rating of 80 and above; another 17 leveled as the middle-proficiency (**M**) with a rating of 60 to 79, and only 7 out of 41 leveled as the low-proficiency (**L**) with a rating of 60 below.

After subdividing the groups, a pilot study was done among randomly selected sample of nine subjects—3 students from each level—for revising not only the selection of materials and task design, but also the questionnaire. The sample, if necessary, would be asked to provide more detailed suggestions for revision.

Consequently, the researcher tried to select randomly some authentic materials from ICRT and designed questions with different task types to help evaluate students' listening comprehension. In addition, a feedback questionnaire written in Chinese was also designed to find out the practicability of authentic broadcast materials and of the task design.

The formal experiment was administered for about 10 weeks from the end of September, 2002 to the beginning of January, 2003. The researcher applied the supplementary broadcast materials in class regularly twice a week, at an interval of 15 to 20 minutes per session.

A test sheet concerning the material for that day was distributed to the subjects, and the topic of the material as well as the purpose of the task were first explained in both English and Chinese to the subjects to ensure that they knew what to do. Furthermore, the meanings of possible vocabulary, terms or phrases were explained

by the researcher and then students were lead to read them out loud, if necessary and possible, with the skill of sound linking at natural speed.

After the brief explanation, if the task types were blank-filling, or cloze, the tape of the extract for the day was played at least three times for students to answer their questions. As for multiple choices and true or false statements, students were allowed to listen to the tape twice for better understanding and comprehension.

Soon after that, the questions were read aloud by the examiner and simultaneously, the students answered them on the sheet, followed by another one or two times of playing the tape for counter checking their final answers. Finally, after the subjects finished each quiz, correct answers were announced for students to find out their own mistakes, and students were encouraged to ask for some more listening skills.

On January 8th, 2003, the writer employed GEPT listening comprehension part as a posttest to find out if there was any improvement in students' listening comprehension. The GEPT test for Intermediate Level in 2000 was the only version officially published by the LTTC by the time of the present study, and therefore the researcher could only use the same test. In addition, both the question and answer sheets of the pretest were collected soon after the test by the examiner and since the answers of GEPT as a pretest were not announced to the students, ten weeks later the same GEPT was used as a posttest. Right after the posttest was conducted, the subjects were asked to complete the feedback questionnaire for the rest of the class time.

Finally, the data were collected for analyzing, including the scores of the GEPTs, the results of all the tasks during class time and the feedback questionnaire, which will be further discussed in the following section. The overall procedure of this study is presented in Figure 3.1.

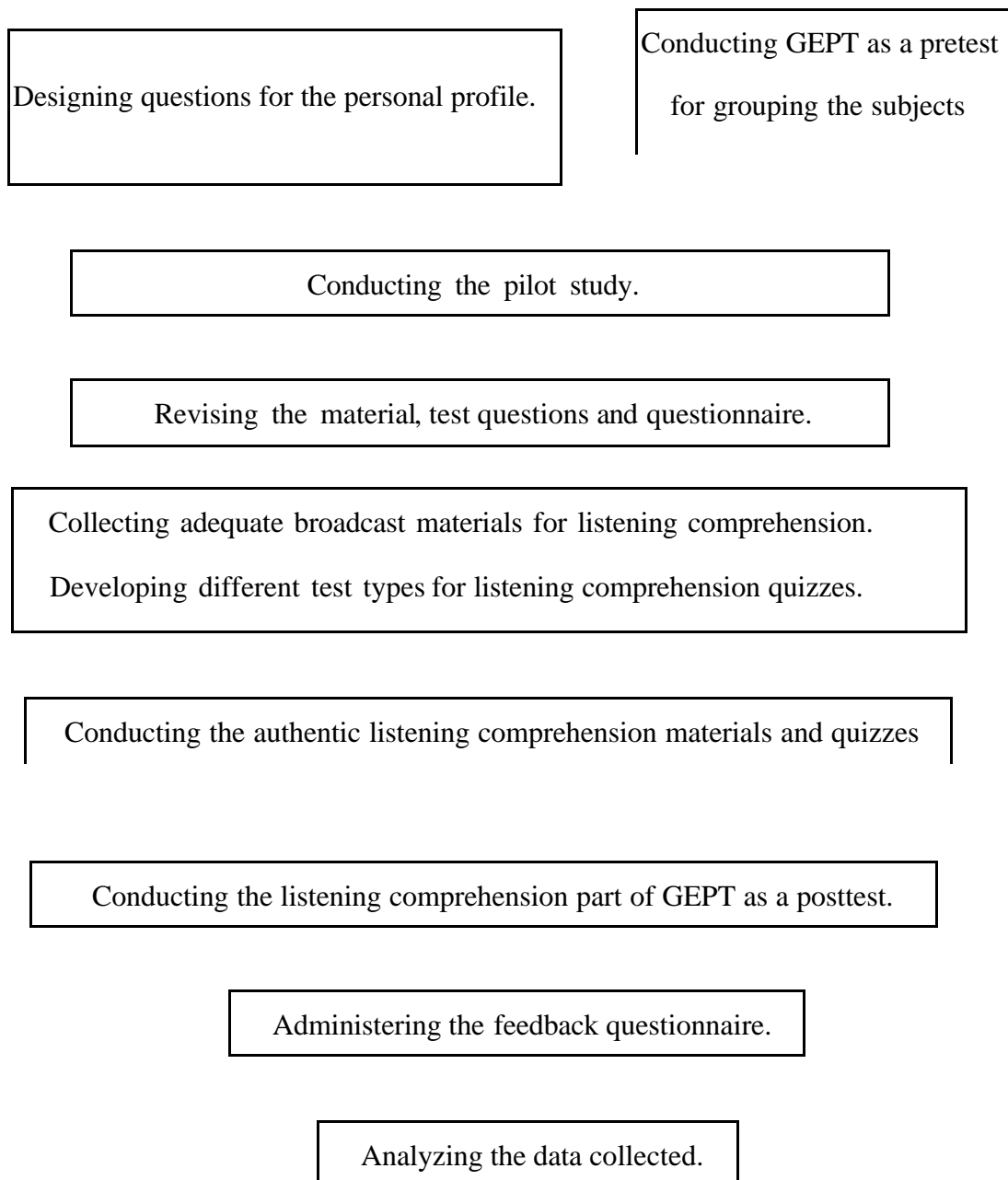


Figure 3.1: Procedure of Conducting the Study

3.6 Data Processing and Methods of Analysis

Data collected in the study consist of the result of the GEPT pretest and posttest, scoring of the different task types among the three proficiency levels and the answers to the feedback questionnaire. The methods of both quantitative and qualitative data analysis are presented as follows.

3.6.1 Methods of Statistical Analysis

The SPSS for Windows (version 8.0) computer program is utilized in three steps.

To begin with, One-Way ANOVA (Analysis of Variance) Repeated-Measures (Lin, 1992; Chiou, 2002; Li, 2002) is used to examine if there is any significant improvement for the total subjects or for different proficiency groups between the GEPT pretest and posttest. Both of the mean scores of the GEPTs are the raw scores of subjects' performance.

Secondly, One-Way ANOVA Repeated-Measures is also applied to check if there is any significant within-subjects effects between different text types or different task types. Since the same subjects⁸ are used in the analysis, Repeated-Measures is suitable in the research.

Thirdly, the correlation between the GEPT posttest and different text types, as well as between the posttest and different task designs is then computed by means of the Pearson Correlation in SPSS (version 8.0)(Chiou, 2002; Wang, 2002). The coefficients may reveal the correlation between their performance and the selection of authentic materials, along with the design of different task questions. However, unlike the scores of GEPTs, the score of each task is given in the form of percentage, which is the rate of correctness. In this way, the comparison among different designs can possibly be both valid and fair.

⁸ The terminology used in Statistics is "Dependent Sample" (Lin, 1992; Chiou, 2002).

3.6.2 Method of the Feedback Questionnaire Analysis

To elicit the subjects' opinions on conducting the listening experiment within the ten weeks, the feedback questionnaire is divided into three phases: (1) views on applying authentic materials from ICRT broadcast as supplements for listening lessons, (2) views on the types of questions, and (3) an open-ended question of suggestions about listening curriculum for the following semester. The questionnaire is written in Chinese to ensure the students' full understanding. The results in the first section will be described item by item on the Likter's 5-point scale questionnaire and all the data in the three sections will be calculated in percentile.

3.7 Summary

Chapter Three first introduces the subjects with a profile of English learning, and the instruments used for the research. A pilot study for revision is conducted after the pretest for grouping the three proficiency levels. Then, the authentic materials with various topics recorded from the radio program ICRT and the design of different task types based on the materials to evaluate students' listening comprehension are provided, followed by the whole procedure presented in detail. Brief introductions of the data collection along with both the methods of quantitative and qualitative analyses are given in the end of this chapter.

More in-depth analyses and discussions will be provided in the following chapter.