CHAPTER III

METHODOLOGY AND DATA COLLECTION

Overview

In this chapter, the method of the research and the process of collecting the data are discussed in detail. This chapter consists of the precise elaboration of the samples, materials and activities, the procedure and research instruments that include the tests and questionnaires.

Restatement of Research Questions

As mentioned before, this study deals with the biological and psychological factors that can be summarized in the differences between Iranian children and adults and the impact of socioeconomic factors upon acquiring English as a foreign language. As said previously this work is researching an answer to the following question:

1 – Is there any difference between Iranian children and adults in acquiring English as a foreign language?

The following null hypothesis was proposed on the base of the research question.

1 – There is no difference between Iranian children and adults in learning English as a foreign language.
**The Subjects**

Two groups of students have been chosen from the Iranian English language learners who study English as a foreign language in Pardis-e-Goldis Institute (PGI), one of the private language learning centres in Tabriz (the capital of East Azerbaijan province). The first group consists of forty children aged 9-12, both girls and boys. The second group includes forty adult students aged 19-22 again, both girls and boys.

These subjects were homogeneous in that all were chosen from the same level and had passed the entrance proficiency test and interview, prepared by the teaching board of this institute. The questions for these tests and interviews are derived from both *The Placement Test of New Interchange Series* and TOEFL test.

It will be worthwhile to have an overview of the history, disciplines and the instructional programs of PGI in order to justify the choice of samples from this centre. This institute was established in 1994 with the aim of creating a new outlook in the field of English language teaching in Iran by university teachers. Like many other institutes, PGI is certified and protected by the Ministry of Education. Its head office and two branches are in Tabriz and another branch is in Tehran, the capital of the country. Recently, an international seminar on ELT was held by this centre in Tabriz. The teaching board of PGI consists of the university graduates, post graduates and PhDs. Those who want to teach in this institute should pass the TOEFL test and an interview based on new teaching methods.

The most important and remarkable characteristic of PGI is that its instructional system is based on the communicative approach. Using materials written according to new teaching methods, VCDs, short stories, songs and other interactive inputs has created the proper atmosphere for students to learn the language in a reasonable way. The following tables show the division of the two main groups of learners, that is *Junior* (little children) and *Senior*, at different levels. The books and materials that are taught at the different levels have been categorized in separate columns.
**Table 3-1: Junior levels of PGI and the materials.**

<table>
<thead>
<tr>
<th>Junior</th>
<th>Main Textbooks</th>
<th>Unit</th>
<th>Supplementary Books</th>
</tr>
</thead>
<tbody>
<tr>
<td>O–AEX</td>
<td>Alphabet Skills</td>
<td>---</td>
<td>American Get Ready (songs)</td>
</tr>
<tr>
<td>O–AE–1</td>
<td>American Chatterbox 1</td>
<td>1–8</td>
<td>Let’s Chant (1-4) &amp; Magic Music Man (1-5)</td>
</tr>
<tr>
<td>O–AE–2</td>
<td>American Chatterbox 1</td>
<td>9–15</td>
<td>Let’s Chant (5-8) &amp; Magic Music Man (6-10)</td>
</tr>
<tr>
<td>O–AE–3</td>
<td>American Chatterbox 2</td>
<td>1–8</td>
<td>Let’s Chant 2 (1-4)</td>
</tr>
<tr>
<td>O–AE–4</td>
<td>American Chatterbox 2</td>
<td>9–15</td>
<td>Let’s Chant 2 (5-8)</td>
</tr>
<tr>
<td>O–AE–5</td>
<td>American Chatterbox 3</td>
<td>1–8</td>
<td>Classic Disney Songs 2(4-14)</td>
</tr>
<tr>
<td>O–AE–6</td>
<td>American Chatterbox 3</td>
<td>9–15</td>
<td>Classic Disney Songs 2 (14-24)</td>
</tr>
<tr>
<td>O–AE–7</td>
<td>American Chatterbox 4</td>
<td>1–8</td>
<td>Classic Disney Songs 3 (4-12)</td>
</tr>
<tr>
<td>O–AE–8</td>
<td>American Chatterbox 4</td>
<td>9–15</td>
<td>Classic Disney Songs 3 (12-24)</td>
</tr>
<tr>
<td>O–AE–9</td>
<td>American Chatterbox 5 &amp; Video Activity (Intro. 1-5)</td>
<td>1–5</td>
<td>Classic Disney Songs 4(4-12) &amp; Elementary Anecdote(1-10)</td>
</tr>
<tr>
<td>O–AE–10</td>
<td>American Chatterbox 5 &amp; Video Activity (Intro. 6-10)</td>
<td>6–10</td>
<td>Classic Disney Songs &amp; Elementary Anecdote (11-20)</td>
</tr>
<tr>
<td>O–AE–11</td>
<td>American Chatterbox 5 &amp; Video Activity (Intro. 11-16)</td>
<td>11–15</td>
<td>Classic Disney Songs &amp; Elementary Anecdote (21-30)</td>
</tr>
<tr>
<td>Senior</td>
<td>Main Textbooks</td>
<td>Units</td>
<td>Supplementary Books</td>
</tr>
<tr>
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</tr>
<tr>
<td>O-Intro.</td>
<td>New Interchange Intro. + Video Activity</td>
<td>1-6</td>
<td>Listening Activities (1-4)</td>
</tr>
<tr>
<td>O-AE-101</td>
<td>New Interchange Intro. + Video Activity</td>
<td>7-11</td>
<td>Listening Activities (5-9) Elementary Anecdotes (1-15)</td>
</tr>
<tr>
<td>O-AE-102</td>
<td>New Interchange Intro. + Video Activity</td>
<td>12-16</td>
<td>Listening Activities (10-14) Elementary Anecdotes(16-30)</td>
</tr>
<tr>
<td>O-AE-103</td>
<td>New Interchange 1 + Video Activity1 Basic Tactics (1-6)</td>
<td>1-4</td>
<td>Elementary Steps to Understanding (1-14)</td>
</tr>
<tr>
<td>O-AE-104</td>
<td>New Interchange 1 + Video Activity1 Basic Tactics (7-12)</td>
<td>5-8</td>
<td>Elementary Steps to Understanding (15-27)</td>
</tr>
<tr>
<td>O-AE-105</td>
<td>New Interchange 1 + Video Activity1 Basic Tactics (13-18)</td>
<td>9-12</td>
<td>Intermediate Steps to Understanding (1-15)</td>
</tr>
<tr>
<td>O-AE-106</td>
<td>New Interchange 1 + Video Activity1 Basic Tactics (19-25)</td>
<td>13-16</td>
<td>Intermediate Steps to Understanding (16-30)</td>
</tr>
<tr>
<td>O-AE-201</td>
<td>New Interchange 2 + Video Activity 2 Developing Tactics (1-6)</td>
<td>1-4</td>
<td>Advanced Steps to Understanding (1-15)</td>
</tr>
<tr>
<td>O-AE-202</td>
<td>New Interchange 2 + Video Activity 2 Developing Tactics (7-12)</td>
<td>5-8</td>
<td>Advanced Steps to Understanding (16-30)</td>
</tr>
<tr>
<td>O-AE-203</td>
<td>New Interchange 2 + Video Activity 2 Developing Tactics (13-18)</td>
<td>9-12</td>
<td>Vocabulary Builder 1 (1-15)</td>
</tr>
<tr>
<td>O-AE-204</td>
<td>New Interchange 2 + Video Activity 2 Developing Tactics (19-25)</td>
<td>13-16</td>
<td>Vocabulary Builder 1 (16-30)</td>
</tr>
<tr>
<td>O-AE-301</td>
<td>New Interchange 3</td>
<td>1-4</td>
<td>Expanding Tactics (1-5)</td>
</tr>
<tr>
<td>O-AE-302</td>
<td>New Interchange 3</td>
<td>5-7</td>
<td>Expanding Tactics (6-10) What’s in a Word (1-3)</td>
</tr>
<tr>
<td>O-AE-303</td>
<td>New Interchange 3</td>
<td>8-10</td>
<td>Expanding Tactics (11-15) What’s in a Word (4-6)</td>
</tr>
<tr>
<td>O-AE-304</td>
<td>New Interchange 3</td>
<td>11-13</td>
<td>Expanding Tactics (16-20) What’s in a Word(7-9)</td>
</tr>
</tbody>
</table>

Table 3-2: Senior levels of PGI and the materials
| O-AE-305 | New Interchange 3 | 14-16 | Expanding Tactics (21-25) | What’s in a Word (10-12) |
| O-AE-403 | Passages 1/Intermediate Grammar in Use (units 52-78) | 7-9 | Intermediate Vocabulary (B.J.Thomas)(pp. 50-75) |
| O-AE-404 | Passages 1/Intermediate Grammar in Use (units 78-100) | 10-12 | Intermediate Vocabulary (B.J.Thomas)(pp. 75-100) |
| O-AE-501 | Passage 2/How English Works pp. 1-75 | 1-3 | Vocabulary in use(upper-intermed.) (units 1-25) |
| O-AE-502 | Passage 2/How English Works pp. 75-150 | 4-6 | Vocabulary in use(upper-intermed.) (units 26-50) |
| O-AE-503 | Passage 2/How English Works pp. 150-225 | 7-9 | Vocabulary in use(upper-intermed.) (units 51-75) |
| O-AE-504 | Passage 2/How English Works pp. 225-300 | 10-12 | Vocabulary in use(upper-intermed.) (units 76-100) |

Some story books are introduced by the teachers to be read by the students at home. In separate sessions, these stories are retold in the class and also there are some questions about these stories in the final exams. The students are recommended to get the other necessary books, CDs, VCDs, Picture Dictionary (for junior levels), Oxford Elementary Dictionary or American Word Power Dictionary and Photo Dictionary (for senior levels).

PGI has a fixed timetable for a session. This timetable includes six terms of fifty five days with restricted rules for enrolment, roll call, midterm and final examinations, giving marks, and so on. Each class comprises between eight and eighteen students. They should attend 21 sessions during a term that lasts for almost two months (almost 32 hours). Being absent for more than four sessions results in the exclusion of the student from the final examination. Excellent and superior students are given special awards. Those who can finish the courses and pass all the examinations successfully receive valid certificates and can sit for the FCE
examination of Cambridge University and the international examination of Trinity College of England. Top students are given some financial aid and rewards. Students can also participate in various activities such as reading competitions, watching English movies in the theatre with the explanation of special expressions by their teachers, talk show (to improve their language fluency), sport and cultural activities, recreational and experiential camps, trips, etc.

As it is obvious, PGI is a standard and suitable pre-planned setting for teaching and learning English in the country. Due to these capabilities and facilities, the samples and subjects for this study have been selected from PGI.

**The Material**

The material that was used to teach the students can be divided into two: main and supplementary textbooks. Of course some books other than these two kinds were introduced to them in order to be read at home as a free and extensive reading program. These books were not worked on in the class during the sessions.

**Main Textbooks**

The samples for this work have been chosen among senior students (elementary level). As shown in table 3-2, the main book that was taught to these students was *New Interchange 1*.

*New Interchange* is a multi-level course for adults and younger learners of English from beginning to high-intermediate level. Level One builds on the foundation for accurate and fluent communication established in the Intro Level, extending grammatical, lexical and functional skills.

This book (*New Interchange 1, student book*) is divided into sixteen six-page units, four review parts and a final part, i.e. unit summaries. The reason for teaching this book is that it has authentic communication as its main goal. Richards J.C. and the co-authors (1999) explain the approaches and methodology of the New Interchange Series as following:

*New Interchange* teaches students to use English for everyday situations and purposes related to school, social life, work, and leisure.
The underlying philosophy is that learning a second or foreign language is more rewarding, meaningful, and effective when the language is used for authentic communication. Throughout New Interchange, students are presented with natural and useful language. In addition, students have the opportunity to personalize the language they learn, make use of their own knowledge and experiences, and express their ideas and opinions. (iv)

Each unit in this book contains ten to thirteen sections. These sections are as follows:

A - Conversation that presents language functions and expressions.
B - Grammar focus in which new grammatical points are showed in colour boxes that is followed by controlled communicative practice activities to be used in a personal context by students. While grammar is seen as an essential component of second and foreign language proficiency, it is presented communicatively, with controlled accuracy-based activities leading to fluency-based communicative practice.
C - Fluency exercises that consist of pair, group, whole class or role-play activities.
D - Pronunciation that includes exercises on stress, rhythm, intonation, reductions, etc.
E - Listening, a task-based exercise that develops listening skills and is accompanied by charts or graphics.
F - Word power activities followed by oral or written practice that enable students to understand how to use the vocabulary in context.
G - Writing exercises based on teaching points in each unit that help students' composition skill.
H - Reading passages that include texts adapted from authentic sources with topics about everyday life. Various reading skills such as reading for details,
skimming or scanning is considered in these texts. There are some pre-reading and post-reading comprehension questions that use the topic of the passage as a springboard to thinking about and discussion. On the whole, this book "deals with contemporary topics that are of high interest and relevant to both students and teachers. The topics have been selected for their interest to both homogeneous and heterogeneous [children and adults] classes" (Richards, 1999: iv). These passages do not include any intricate or complicated subjects and are completely lucid and understandable for both children and adults. That is, there is not any social and cultural point that can be intangible or knotty for the learners. They are readily accessible even for non-professional readers. Appendix II is a sample passage taken from the book.

I - Interchange Activities involve information sharing and role-play activities that encourage real communication. These can be pair work, group work, or whole class activities.

J - Unit Summaries that contain lists of the key vocabulary and functional expressions, as well as grammar extensions for each unit.

The supplementary components of the New Interchange student book are: the full-colour Teacher's Edition; the Workbook; the Class Audio Cassettes or CDs; the Student's Audio Cassettes or CDs; the Video Activity Book; the Video Teacher's Guide; the Placement Test; the Lab Cassettes and the Lab Guide.

**Supplementary Books**

The supplementary books that were taught to the samples in the classroom were:
These books consist of very short texts (about 150 words). These short passages tell funny stories that make them easily and eagerly read. Every passage is followed by three exercises of different types such as True/False questions, questions that require short answers and filling in the blanks with words. Every passage or sometimes a few consecutive passages present a certain grammatical rule or point indirectly. These grammatical rules or structures are also practised in the questions that follow the passage. The main goal of the book is to develop the learners' reading comprehension ability and other skills (if any) are taught indirectly that is, they are hidden in texts. In this way, the learners learn these points and elements unconsciously as they are repeated in the passages.

Students were asked to read the texts in the classroom quickly and do the exercises. Very little time was devoted to these texts in each session and only one passage was read and used for language practice. In the final exam (the achievement test), some questions were given based on the subjects of these books. The purpose of this activity (reading these kinds of passages) was to have a change in the materials that were being used in class and to have a short period of break at the middle of the routine class program. A sample unit from these books is reproduced in Appendix III.

**Classroom Activities**

Each session consisted of reading a passage and doing the necessary tasks and activities. Following are different activities that were attempted in the classes with the learners:

A - Activating the students' previous knowledge: As discussed in chapter two (Schema Theory, Chapter II), the learners background knowledge is an important factor in comprehending a text that is read. And also according to Krashen's Monitor Model (Input Hypothesis, Chapter II), the new information for a
learner should be only one level higher than his previous knowledge in order to be acquired. Hence, it should be borne in mind that to activate the students’ background knowledge, it is essential to make them receptive to the new data. Therefore, before starting to read the passage, the teacher (sometimes the present researcher) talks about the topic very briefly and asked the students to give their ideas about it. This work as a pre-reading task is an introductory activity to refresh the students’ knowledge to fresh and help them grasp the new information.

B - Discussing the new vocabulary: the meaning of the new words and expressions were not given directly to the students. Instead, the teacher tries to use them in different and simpler sentences while talking about the topic of the passage. If there is a question about the meaning of any word, the teacher asks questions about the subjects related indirectly to the words under question. Students, while answering the teacher’s questions, got the meanings of new words. This was considered as a reasonable way to give the meaning of an unfamiliar word indirectly. So, students learned to guess the meaning of a new word without using a dictionary and in an unconscious way.

C - Reading the passage: the teacher reads the passage once. Then two of the students are asked to read it aloud. The teacher doesn’t interrupt them, while they are reading, even when there is a mispronunciation because the aim of the reading is not learning to pronounce the words correctly. Instead, after finishing the reading of the passage, the teacher repeats those words that seem to be difficult to pronounce a few times in speech or later activities.
D - Exercises: there are different types of exercises to check the comprehension of the passage. These exercises are of the following kinds:

1 – True/False questions
2 – Multiple Choice questions
3 – Short Answer questions
4 – Completing Charts and Tables
5 – Labelling the Pictures
6 – Finding certain characteristics or main points in the passage
7 – Telling the opinion about some things, places, people, etc. related to the passage

The most remarkable thing about these exercises is that almost all of them emphasize comprehending of the passage and expanding the students’ vocabulary. The other skills and abilities, such as writing, are not practiced.

**Outside Activities**

Some story books are introduced to the students to be read at home as their outside reading task. Students read these books as their extensive reading activity. According to chapter two, extensive reading has been considered one of the best possible ways to develop the readers’ fluency and automaticity. The reason for choosing story books as a material for students’ outside reading originates from the opinions and ideas that fortify the use of stories as teaching materials. Although no one is in any doubt about the benefits of reading stories in reinforcing the learners’ abilities, it won’t be useless to mention some of the advantages of reading stories.

Everyone enjoys reading and listening stories. Stories can create a wide variety of related learning activities. They provide motivation and develop positive attitudes towards the foreign language and language learning and also create a desire to continue learning. Being identified with the characters and trying to interpret the
narrative and illustrations help the story reader to become personally involved in a story. The results of this will be to exercise the imagination. Stories, as a tool, can link imagination with the real world in order to make sense of the reader’s everyday life.

Through the process of story reading, basic language functions, structures, vocabulary and language learning skills are acquired unconsciously. Ellis G. and Brewster J. (1991) explain the benefits of reading stories as follows:

Stories are a means of developing learning to learn. This major category covers:
Reinforcing thinking strategies (for example, comparing, classifying, predicting, problem solving, hypothesizing, planning, and so on).
Developing strategies for learning English (for example, guessing the meaning of new words, training the memory, self-testing, and so on).
Developing study skills (for example, making, understanding and interpreting charts and graphs, making and learning to use dictionaries, organizing work, and so on). (2-3)

The storybooks that were chosen for students’ outside reading in this investigation are:

a) Princess Diana

b) Sherlock Holmes

c) The Love of a King

d) The Phantom of the Opera

e) The House on the Hill
   By: Elizabeth Loird. (Heinemann Guided Readers/Beginning Level)

These books are simple or simplified storybooks that are introduced to the students in order to be read at home and only a few minutes are spent on checking
their reading. That is, a few questions are asked about these stories in the classroom and a very short discussion in case of any problem or difficulty. The experience shows that students read these books eagerly and enjoy them. As said before, one of the great advantages of reading stories or using them as the classroom material is the entertaining feature that encourages the learners to continue the work.

The Procedure

The procedure of the present research has been conducted in the following steps:

First Step:

Eighty children and adults as the samples of the present research have been selected from among the students of the elementary level (seniors: table 3-2) in Pardis-e-Goldis Institute. They were taught eight units of *New Interchange 1*. It lasted for almost four months that is two fifty-day terms, with a ten-day holiday in between. Students attended three ninety-minute classes in a week (totally forty four sessions in four months). While this work tests the students’ reading comprehension ability, only the teaching and testing of this part of the instructional program is discussed in this work.

Second Step:

A test (other than the entrance test given by the institute itself) was given to the students in order to make sure of the homogeneity of the samples. This test (Appendix IV) was administered as a pre-test and was taken from the samples of the *Preliminary English Test (PET – 2002)* without any changes in its quality and quantity. As far as reading comprehension was concerned for the purpose of this study, the questions were adopted only from the reading comprehension and the vocabulary sections of the mentioned test.

Third Step:

A t-test was employed in order to find out the homogeneity between two groups of children and adults. For this purpose it was performed on the results (students’ marks) of the PET test (Appendix V).
Fourth Step:

Keeping reading strategies and theories in mind, the prepared material was taught to the selected samples during the determined period of time. In order to have a complete and precise reading comprehension program in our classes both kinds of intensive and extensive readings were exercised. That is, different materials were introduced to the students to be read and practiced both in and out of the class.

Fifth Step:

At the end of the term, a test based on the materials that had been taught to the students was given to them (Appendix VI). The questions for this test were prepared according to the standard models of testing.

Sixth Step:

A questionnaire was prepared and distributed among students in order to collect the necessary information about their social and economic status (Appendix VII). This questionnaire was prepared according to the models and explanations of McDonough J. and McDonough S. (1997) and Wallace M. J. (2002).

Seventh Step:

Finally, the collected data, that is the result of the achievement test and the information obtained through the questionnaires, were analyzed and the answers for the research questions were achieved. Another t-test was run in order to compare the two groups according to their scores (Appendix VIII).

As its structure shows, the present work is an experimental research. In general, all researches of this kind are trying to answer one or more questions. An experiment must be done under carefully controlled conditions. All the factors that can influence the outcome should be removed or be under control. John W. Best and James V. Khan (1993) explain the nature of experimentation as follows:

Experimentation is the classic method of the science laboratory, where elements manipulated and effects observed can be controlled. It is the
most sophisticated, exciting, and powerful method for discovering and
developing an organized body of knowledge. (133)

Considering the purpose of the research, two tests (pre-test and post-test) were
developed. In the next sections, the characteristics of these tests and the instruments
that were used to gather the necessary data for the research will be discussed.

**Administration of the Pre-Test**

As it is said before, some parts of the reading and vocabulary questions of
PET test were used as a pre-test. The attempt was made to choose certain kinds of
questions in order to increase the validity and the reliability of this test. *Preliminary
English Test* is an examination based on the Council of Europe’s Threshold
specification, which tests the language skills needed to survive in social and work
situations in an English-speaking environment.

There are many corporations all around the world, which have recognized or
used PET, for example in recruitment or as part of their staff training and
development program. These corporations are from many countries such as Australia,
Austria, France, Germany, Italy, Japan, Norway, Poland, Portugal, Spain, Sweden,
Switzerland and United Kingdom. The qualification of this test has been recognized
by many higher education institutions all around the world (e.g. Brazil, Colombia,
France, Italy, Mexico, Spain, and Switzerland, among others). This may be for
admissions purposes or as part of the course assessment. A list of the corporations and
higher education institutions that have recognized and are using the PET as a standard
test has been presented in appendix IX.

The pre-test (PET) that was administered for this research was divided into
two parts, reading comprehension and vocabulary. Part one (reading comprehension)
consists of the following types of questions:

- In the first section, a passage named *Travelling Round Australia* (almost 350 words) was given
to the students followed by ten true/false questions.

- In the second section, information about
different people together with their photographs
was introduced. This information was about their hobbies, manners and tastes of eating food. Then explanations about some places were given. Students were asked to select the most suitable places for each person or family. To answer these questions, students need to comprehend given information.

- The third section includes two cloze tests (*A Cure for Mice*, almost 70 words and *English Schools*, almost 155 words). Before starting to fill the blanks, students were asked to answer three yes/no questions for each passage that were based on the main topic of the passage. To make the job easier, four words were given for every blank space to be chosen by the students.

- The last section of the reading comprehension test was a passage (*A Customer’s Complaint*, almost 125 words). It was followed by five multiple-choice questions. These questions were asked merely to check the comprehension of the passage by the students.

The second part of the pre-test consisted of questions on vocabulary. These questions were of different kinds such as filling the blanks, matching verbs with nouns (activities), matching words with pictures, finding single words for the given explanations, completing the tables, and so on. After collecting the students’ marks that were out of 100, a t-test was run in order to find out the homogeneity between two groups of samples.

**Administration of the Achievement Test**

At the end of this experiment a test based on the materials that the subjects were taught was developed to evaluate their reading comprehension ability and to examine the probable differences between the two groups, i.e. children and adults.
The test was derived from *New Interchange 1* and its *Placement and Evaluation Package*.

*New Interchange* is one of the world's most successful courses for learners of English as a second or foreign language. Its Placement and Evaluation Package provides teachers with a tool to assess their students’ level of English proficiency. This package offers different kinds of tests. It was published in the fall of 2002. It has been recognized by so many corporations and institutions all over the world and has gained great popularity among Iranian language institutes and language teachers. The author of this series, Professor *Jack C. Richards* is an internationally recognized authority on methodology, teacher development and materials design, and has taught in universities and teacher education centres in New Zealand, Hawaii, Indonesia, Hong Kong, and Singapore. He has written many successful classroom texts and teacher resource books, including *Approaches and Methods in Language Teaching*, *Reflective Teaching in Second Language Classrooms* and *Beyond Training*.

Overall, achievement tests attempt to measure what an individual or a group has learned. These tests measure a student’s present level of knowledge that has been achieved through a controlled process of teaching and learning. Most of the tests that are used in schools all over the world are of this type. The scores that are gathered through conducting these kinds of tests are used to evaluate the influence of different factors such as the course of study, teacher, the methods that have been administered and all the other factors that play an essential role in educational programmes.

The test that has been developed at the end of the present research consisted of seven different parts for reading examination and six parts for vocabulary examination. The reading exam included the following types of questions:

- The first question was a very short passage (70 words) about a person. The information was given about the daily life of a woman and 6 simple questions were to be answered by the students. While the other abilities of the samples were not under consideration, they were asked to give short answers to these questions.
• The second question was a passage with one hundred and fifteen words that was a very short and funny story. Following the passage there were five multiple-choice questions.

• The third question was an eighty five-word passage about English names. Four true/false questions were prepared for this passage.

• The fourth question was a letter (almost 180 words) written to a close friend, in which the writer explained the city where he lived in and his daily life. This letter was also followed by six true/false questions.

• The fifth question of this reading test was a passage (almost 100 words) that was a short composition written by a student. Again five true/false questions were prepared for this text to be answered by the samples.

• The sixth question of this test was two pieces of short advertisements for job vacancies (almost 120 words) that again followed by four true/false questions.

• The seventh and last question consisted of two passages (around 160 and 210 words). There were twelve blank spaces instead of twelve words in each passage. The missing words were given before the text and the students were to fill in the blanks with the given words.

The vocabulary test included the following six parts:

• In the first part there were eight sets of sentences. Instead of one word in each set there were three words in the brackets and the students had to choose the suitable word for the sentence.
- In the second part there were seven sentences with a blank space in each. Nine words were given above them. The suitable and correct words for the blanks had to be chosen among these words.
- The third part included seven sets of sentences. One word in each of them was incorrect and did not fit the sentence. These words had to be underlined by the students.
- Twelve words were given in the fourth part of this vocabulary test. Beside them, there were four columns with different titles. Students had to categorize the words and write them under the suitable title.
- The fifth part consisted of seven words or phrases and seven definitions for them. Students were asked to match the words with their definitions.
- The last part of this test consisted of eight words in column A and their opposites in another column. They were asked to match each word with its opposite.

In the next chapter, the subjects’ scores gained through these tests will be analyzed and the results of this analysis will be studied to compare two groups of children and adults.

**Developing the Questionnaire**

Questionnaires are the most common research instruments to collect data. Although it is difficult to prepare an accurate and proper questionnaire, it is very popular among educational and ELT researchers. The advantages of using a questionnaire to gather the data is explained by McDonough and McDonough (1997) as follows:
• The knowledge needed is controlled by the questions, therefore it affords a good deal of precision and clarity.

• Questionnaires can be used on a small scale, in-house, and on a large scale, requiring little more extra effort than photocopying and postage (through for large-scale survey work this can consume a significant budget, especially when using stamped self-addressed envelopes for returns).

• Data can be gathered in several different time slots: all at once in a class, in the respondents’ own time as long as it is easy to return, at convenience when a suitable respondent happens to come along, and in different locations at different times; but in all of these the data is comparable, the questions are the same and the format is identical.

• Self-completion questionnaires allow access to outside contexts so information can be gathered from colleagues in other schools and even other countries. (171-2)

In general, a questionnaire must be written very carefully in order to prevent the probable ambiguity and lack of clarity in the questions. The informant should be aware of the purpose of the questionnaire and all items should be clear and easily understood. So, the purpose of the questionnaire is the main and first thing that should be clear, that is the informant should know the reason of filling the questionnaire.

Questionnaires are of different types. The one that is prepared for the present work is a closed multiple-choice questionnaire. The advantage of these kinds of questionnaires is that they are easier to be filled. It is obvious that a majority of people
don't like to answer long and time-consuming questionnaires. The use of verbal categories is another important advantage that can be considered in constructing a questionnaire. The practical facts of preparing and collecting the data were considered in preparation of the questionnaire of the present research. That is, the copies of the present questionnaire, with only nine multiple-choice questions, were filled easily and quickly in the classrooms by the informants. Needless to mention that lengthy questionnaires take a great deal of time and effort to be filled, especially when the informants are children.

There are some difficulties in constructing questionnaires. The followings are some of the pitfalls that should be avoided, described by Cohen and Manion (1989: 108-9) and are summarized by McDonough and McDonough (ibid):

- **Leading** questions which suggest there is one desirable or desired answer
- **Highbrow** questions, using portentous long words, which are liable to be misunderstood
- **Complex** questions with many subparts
- **Irritating** questions or instructions, asking for examples for responses in several category boxes at once
- **Negative** questions, especially double negatives
- **Ambiguous** questions

The consistency of answers, which might indicate a lack of discrimination in the questions

The yield on individual questions, since a question attracting a large number of 'don't knows' may indicate too difficult a choice or an ambiguity. (178-9)

As mentioned above, the questionnaire that is constructed for the present work consists of nine multiple-choice questions. These questions were asked to gather information about the socioeconomic status of the samples and also their educational condition and that of their families. In Chapter II (Socioeconomic Factors) the need
for collecting information about this matter was discussed in detail. While half of the
samples of this research were children, the effort was made to make this questionnaire
as simple as and as clear as possible. The questions will be discussed in detail in the
next chapter.

**Validity and Reliability**

Validity is that quality of a test that enables it to measure what it intends to
measure. It is obvious that a test must provide a true and effective measure for the
certain task, which is supposed to measure. There are different types of validity.
Content (rational) validity which refers to the degree, to which the test actually
measures, is concerned with how well a test has been constructed to be a
representative sample of the feature or content to be tested.

Content validity is based upon careful examination of course
textbooks, syllabi, objectives, and the judgment of subject matter
specialists. The criterion of content validity is often assessed by a panel
of experts in the field who judge its adequacy, but there is no
numerical way to express it. (Best and Kahn, ibid: 219)

The content validity of any achievement test should be examined but this type of
validity is not important for other kinds of test such as aptitude test.

The achievement test that was used in the present work was prepared by the
teachers of PGI. The procedure for preparing the pre-test and post-test administered in
the present study was consulted with five university teachers who are experts in the
field of testing. Although the achievement test was prepared by the teachers from
PGI, who had taught the same material and tested it for many terms, it was examined
by university teachers (testing experts) too in order to make sure of its content
validity.

A second type of validity is the criterion or statistical test. This type of validity
refers to the statistical relationship of the test scores with other measures such as the
scores on another test. This type of validity should be expressed as the coefficient of
the correlation between test scores and other measures. For this purpose, *Pearson’s
Product-Moment Coefficient (r)* is used. The validity of the achievement test used in
the present research was calculated through this coefficient of correlation. The result will be discussed in the next chapter.

Reliability refers to the ability of a test to measure integrity consistently. Hence, a reliable test is stable in whatever it measures and produces comparable scores upon repeated administration under similar conditions. Reliability may be considered as a part of validity. There are several types of reliability or stability. Following are some types that have been summarized from Best and Kahn (ibid):

1 – Stability over time (test-retest).
2 – Stability over item samples (equivalent or parallel forms).
3 – Stability of items (internal consistency).
4 – Stability over scores (interscorer reliability).
5 – Standard error of measurement.

(218)

To assess the reliability of the tests administered in the present study, the KR-21 Reliability Formula was used. The results will be presented and discussed in the next chapter.