Chapter Three: Research Methodology
3.1 Introduction

In the preceding chapter, a comprehensive review of literature was made to find out the research gap in the sphere of CALL, and its role in learning English as a foreign language and EFL learners’ attitude towards learning EFL through CALL were investigated. The present chapter deals with designing of research methodology of the study. It presents in detail the ambit of research design giving a detailed plan of the work. It describes the target group of the study and sample group of the study. The hypotheses of the study have been postulated, research instrument and procedure, and research design has been provided.

The statistical tools and techniques have been used for analytically studying the whole gamut of the issues and problems that fill the gap in the existing stock of knowledge on the subject matter of EFL learners’ attitude towards learning EFL through CALL with special reference to the Discovery Schools’ students in Jordan, EFL Learners grades i.e. 10th grade males and 10th grade females, 7th grade males and 7th grade females.

3.2 Population of the Study

The target group of this study consisted of students of the seventh and tenth grades who learn English as a foreign language via CALL at the Discovery Schools in First and Third Amman Directorate of Education for the academic year 2010/2011. EFL students learn English Course as school requirement to meet the demands of school employment and for further education.
3.3 Sample of the Study

The study was conducted at six discovery schools. Three of them were boys’ schools namely; Zahran, Al-Rasheed, and Abdullah bin Rawaha, and three of them were girls’ schools namely; Queen Rania, Princess Rahma Bint Al Hasan, and Princess Taghreed. The following table shows the distribution of the sample.

Table 3.1: Discovery Schools and the samples involved in the present study

<table>
<thead>
<tr>
<th>School’s Name</th>
<th>No. of students in the sample</th>
<th>Grade</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>Queen Rania</td>
<td>50</td>
<td>Tenth</td>
<td>Females</td>
</tr>
<tr>
<td></td>
<td>75</td>
<td>Seventh</td>
<td>Females</td>
</tr>
<tr>
<td>Princess Rahma Bint Al Hasan</td>
<td>10</td>
<td>Tenth</td>
<td>Females</td>
</tr>
<tr>
<td>Princess Taghreed</td>
<td>15</td>
<td>Tenth</td>
<td>Females</td>
</tr>
<tr>
<td>Zahran</td>
<td>30</td>
<td>Tenth</td>
<td>Males</td>
</tr>
<tr>
<td>Al-Rasheed</td>
<td>45</td>
<td>Tenth</td>
<td>Males</td>
</tr>
<tr>
<td>Abdullah bin Rawaha</td>
<td>75</td>
<td>Seventh</td>
<td>Males</td>
</tr>
<tr>
<td><strong>Total No. of the sample</strong></td>
<td><strong>300</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The schools were chosen from the population randomly, and all of them study EFL via CALL. Moreover, the schools where this study was conducted had also provided with laboratories that contained computers equipped with up-to-date software packages and were linked with the Internet. The academic and administrative staff were cooperative which contributed to the success of the present study. The sample of this study consists of 300 students of tenth and seventh grades who study EFL via CALL.

This study hypothesized that there are no statistically significant differences in learners’ attitude towards learning EFL via CALL in general, there are no statistically significant differences \((a = 0.05)\) in learners’ attitude towards learning EFL via CALL based on gender, there are no statistically significant differences \((a = 0.05)\) in learners’ attitude towards learning EFL via CALL based on level of study, and there are no statistically significant differences \((a = 0.05)\) in learners’ attitude towards learning EFL via CALL the based on interaction between gender and level of study.

### 3.4 Research Instrument

In order to obtain data to answer the research questions, this study is based on a questionnaire designed by the researcher to determine the learners’ attitude towards using CALL in Learning of EFL (see Appendix A). The questionnaire was translated from English into the Arabic Language. The researcher used Arabic version of the instrument in the present study because the first language of the EFL learners was Arabic. (see Appendix B). The questionnaire was designed after an extensive literature review of many studies related to students’ attitudes towards using CALL in learning of EFL.
This questionnaire consisted of 26 statements to determine the students’ attitudes towards using CALL in learning of EFL. Participants answered each question according to a 5-point Likert-type scale in which responses ranged from strongly agree (5), agree (4), neutral (3), disagree (2) to strongly disagree (1).

The respondents rated their attitudes on each item from strongly agree to strongly disagree, so the range of possible mean scores was between 1 and 5, with higher scores indicating positive attitudes.

3.5 Validity and Reliability

Validity refers to the extent to which an instrument measures what it is designed to measure (Brown, 1996, p. 231), while reliability refers to the consistency and accuracy of the measurement (Seliger & Shohamy, 1989). According to Wyckoff (1998: 48 as cited in Abu Samak, 2006: 66) “A valid instrument measures what the researcher claims to measure; a reliable instrument measures the data in a consistent and accurate manner rather than randomly”.

3.5.1 Validity of the Questionnaire

In order to establish the content validity of the questionnaire, it was distributed to 10 Specialists in linguistics, (see Appendix C). The referees were invited to validate the content of the questionnaire and their suitability to research questions and objectives. The remarks of the referees, notes and suggestions were taken into consideration.
3.5.2 Reliability of the Questionnaire

In order to establish the reliability of the questionnaire, a pilot study was conducted with a group of 30 students, who were randomly chosen from the population of the study. The questionnaire was distributed to the same group to check the reliability after two weeks. This step was taken to ensure that questionnaire directions, content, form, and time were stable. Cronbach’s alpha was used to measure internal consistency and calculated via the SPSS 10 statistical package. The internal consistency of the questionnaire was calculated. It was found to be .88, which is considered very high from a statistical point of view for the purposes of this study.

3.6 Procedures of the Study

Official permission was obtained from the Ministry of Education, which was handed over to First and Third Amman Directorate of Education (see Appendix D and E) for approval to conduct this study in the target schools. The permission letters were sent to school principals, requesting that the researcher be allowed to conduct the study. Then the following steps were followed in conducting the present study:

1. The researcher visited each Discovery School that was engaged in teaching EFL via CALL. The researcher found that some Discovery Schools were not actually teaching EFL entirely via CALL. One of the reasons for this, which a few teachers stated, was of technical nature related with irregular and unstable internet connection, so they were excluded from the study.
2. After a survey of all schools, only those Discovery Schools, where instructions to pupils of EFL were imported via CALL only.
3. Each, principal of the Discovery Schools was personally contacted by the researcher to apprise them about the procedures for completing the questionnaire and to seek their cooperation.

4. The researcher distributed the questionnaire only to the students of tenth and seventh grades who study EFL via CALL.

5. Questionnaires were distributed to respondents after detailed instructions were given to them about the columns they were supposed to fill up on the first page itself, namely; their names, their school name, and their gender.

6. The researcher asked the respondents to read the items in the questionnaire carefully and put a tick (√) mark in the space they found appropriate that is the extent to which they agree/disagree with each of them. In the case of students who encountered any difficulty in reading or understanding the item, the researcher himself explained the item and its meaning, rather than leaving the student to respond on the basis of guess. In addition, teachers were requested to refrain from influencing the choices and ratings being given by their pupils.

7. Data generated through the questionnaires were computed to be ready for analysis with the help of the statistician.

3.7 Research Design

The purpose of this study was to explore the role of computers and the role they can play to support teaching and learning of EFL and to find out and analyze EFL learners’ attitudes for checking their knowledge, and learning EFL via CALL at the Discovery Schools at First and Third Amman Directorate of Education in the academic year 2010/2011.
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The present study contains the following Variables:

The Independent Variables

1. Gender
   - Males
   - Females

2. Level of the study
   - Tenth Grade
   - Seventh Grade

The dependent Variable

1. Learners’ attitude towards CALL

3.8 Procedures for Data Analysis

Data gathered through the questionnaires was analyzed on the basis of percentages of respondents mentioned in tables and figures. Data gathered through the questionnaires was also analyzed by making use of Analysis of Variance (2x2 MANOVA) statistical procedures in the SPSS (Statistical Package for Social Sciences). This database was used to sum the numeric values of the responses. In addition, this database was used to run frequencies, percentages, means, and standards of deviations. The mean score was used to find whether the overall students’ attitude towards computers was positive or negative. Analysis of Variance (2x2 MANOVA) was used to find if there were any significant differences in students’ attitudes towards learning EFL via CALL, based on gender, level of the study, and the interaction between them.