3.1. QUASI-EXPERIMENTAL

Generally there are two classifications of experimental research, including true experimental design and quasi-experimental design (Gribbons & Herman, 1997). The word “quasi” in Latin stands for as if or almost. Regarding this, quasi-experimental study could be defined as a best effort at an experiment while it is not possible, or not rational, to find out all the requirements of a true experiment. This kind of study is usually known as being free of randomization of either treatment or samples and/or the absence of comparison groups. Though, there is still an effort to separate the treatment. As an overarching aim, the structure of quasi-experimental study tries to reply questions like: “Does a treatment or intervention have an effect?” and “What is the correlation between program practices and results?” (Dimsdale and Kutner, 2004).

True experiments are suitable when it aims at being capable of isolating each and every kind of statistical correlation, with the ability to realize causality. Consequently, before planning an experiment, it is essential to pay attention to some important factors. Can the individuals and/or other components in your research be accurately categorized? Can you choose individuals or other components randomly in your research? Is the procedure of randomization suitable to all included in the research? Should the response be “no” to all of these questions, quasi-experimental designs then surface. Educational survey, and the interventions or techniques that are represented, seem somewhat safe to the general eye; therefore, many scholars carry on emphasizing true experiments (Kidder, 1981). It is not easy at all; although, as usefulness, effectiveness, and possibility as well need to be noticed. Additionally there are further behavioral considerations. If there is any risk of impairment from providing or forbidding services to somebody in the sample, then an experimental study cannot be used. In this case, in majors such as psychology, education, and
criminal justice, quasi-experimental study is often employed. In general, the research community has a tendency to approve the employment of and legalize the employment of quasi-experimental study (Campbell & Stanley, 1963; Cook & Campbell, 1979). The common purpose of quasi-experimental study is to explore cause and effect correlations. This method for investigation provides higher comprehension of program specifications and practices. As there is lack of control in the quasi-experimental study, it is essential for the scholar to decide when and what to evaluate (Dawson, 1997).

3.1.1. THE CONTRIBUTION OF QUASI-EXPERIMENTAL STUDY IN EDUCATIONAL RESEARCH

It was not till the late 1900s that educational modification and improvement brought reliance to research. Before that, untested treatments and creativity were common. The government of U.S. has decided to request a research base, as represented by the Comprehensive School Reform Demonstration legislation of 1997 and the No Child Left Behind Act. In both occasions, the stress is on the employment of quasi-experimental or experimental study (Slavin, 2003). Campbell and Stanley (1963) remarked quasi-experimental and traditional experimental approaches. Cook and Campbell (1979) carried out exploring these approaches, developing upon early studies regarding validity. In 1993 Parker surveyed and incorporated both the studies and afterwards included in the pile of risks to reliability. At the turn of the century, different authors were maintaining to write about the matter of what organizes an experimental design and the matters related with a less than accurate experiment. The existing of true experimental designs in educational study has not been widespread predominantly through the time because of methodological restrictions and on several reasons, more logistical cases such as time and money. It is mostly not feasible to
randomly determined individuals to manage and experimental groups, like in clinical circumstances that groups are formerly intact (Dimsdale & Kutner, 2004; Heppner, Kivlighan & Wampold, 1992). Quasi-experimental researches suggest a reasonable solution to such problems.

Further matters that usually rise in educational study contain, but are not restricted to, distracting and the hypothesis of independence. Independence claims that the measure allocated to an individual is independent other individuals’ measure. Randomization of samples is the single way to assure this. Distracting is the other issue. When a research variable is not controlled, but should be, it is defined as a distracting factor. Given that distracting cannot be coped with only in terms of statistical views, quasi-experimental designs, and mostly for the educational study as a whole, always have this as a restriction (Pearl, 2000).

3.1.2. WEAKNESS AND STRENGTHS OF QUASI-EXPERIMENTAL STUDY

While thinking over which kind of design to utilize in a research, it is essential to think about both practicality and validity. Generally, quasi-experimental study is more practical, given the common time and logistical limitations. At the surface level, a comfortably recognizable weakness of applying quasi-experimental study, as opposed to a true experiment, is the absence of random allocation. Without random allocation, interior validity is decreased, and causal assertions become absolutely tough to present (Prater, 1983). On the other hand, quasi-experimental researches have tendency to show the circumstances under study in real-world situations, enhancing the exterior validity. Commonly, quasi-experimental researches are pre-existent structures. For this reason, fewer variables are capable of being controlled;
yet other issues restricting the ability to present causal assertions (Henrichsen, Smith & Baker, 1997).

With the performance of the No Child Left Behind legislation, educational study suggested a program of scientific-oriented study. Shavelson and Towne (2002) determine requirements essential for a scientific research, which contain: direct, empirical survey of a significant question; attentions to the condition in that the investigation conducted; adjustment with a perceptual structure; precise and perfect reasoning; and exposure of outcomes. Quasi-experimental study represents the mark by finding out each and every listed standard. When the controlled, experimental study is the perfect one, at least in statistical mode, while an experiment is not feasible or applicable, the best method is to recognize and remove threats to reliability via the performance of a quasi-experimental method (Borg & Gall, 1989).

The aim of this study is to evaluate the impact of Cognitive Style, Field-Dependent/independent, on Performance of Process and Product Writing Approaches and Reading Comprehension Test for ESL students in Mysore. This chapter explains the methodology which is applied in the experimental and survey study. First the setting, participants, sampling, designs, target form, treatment materials, measurement instruments, and the procedures of data collection, data analysis and statistical analysis of the Quasi-Experimental study are all explained in detail. The same will be done for survey study.

3.2. SETTING

The research was organized at Iranian Association in Mysore City, India. Mysore is a mid-sized South Indian city with a population of around 7.8 lakh (780 thousand) and measuring an area of 128 sq km (about 50 sq miles). After Bangalore, the state capital, it is the second largest city in Karnataka. With around 2.5 million
visitors per year, Mysore is one of the most visited cities in India. Mysore locates in the south Indian plane (often referred as the Deccan plateau). Prior to the creation of the English educational system in Mysore, agraharas made the Vedic system of education public for Hindus and madrasas employed as learning centers for Muslims. Modern education saw its starting in Mysore while a free English school was set up in 1833. In 1854, the East India Company announced the Halifax Dispatch that viewed organizing education according to the Western model in Mysore princely government. The first college which established for higher education in Mysore was the Maharajas College, which was initiated in 1864. In 1868, the Mysore government attempted to set up Hobli schools to expand education to the populaces. According to this plan, a school was founded in every hobli (a locality within the city) and the education was free of charge. This resulted in the foundation of an ordinary school in Mysore that was assigned for coaching to teachers who were intended to teach in the hobli schools. In 1881, a high school only for girls was founded and afterwards it was changed into the Maharanis Women's College. In 1892, the Industrial School, the first institute to promote technical education in the city was initiated and this was pursued by the Chamarajendra Technical College in 1913. When the modern system of education caused invasions in the city, colleges like Sanskrit College of Mysore that was founded in 1876 maintained to prepare Vedic education.

The educational system in Mysore gained more strength when Mysore University was founded in 1916. This was the sixth university to be set up in India and first in Karnataka. It was called Manasagangotri ("fountainhead of the Ganges of the mind") by the poet laureate, Kuvempu. The university allocates to Mysore, Mandya, Hassan and Chamarajanagar districts in Karnataka. About 127 colleges (totally having student population of 53,000) are attached with the university.
University of Mysore is the single university in the Karnataka State to obtain A+ grade from the National Assessment and Accreditation Council of India. Education in the area of engineering was initiated in Mysore with the foundation of the National Institute of engineering in 1946 the Second Oldest Engineering College in the State. Medical education initiated in 1930 when the Mysore Medical College was shifted from Bangalore to Mysore. Other institutes in the city consist of the Technological Research Institute and Central Food, All India Institute of Speech and Hearing and the Central Institute of Indian Languages. Reputable B-Schools like SDMIMD, JSS Center for Management studies are settled in Mysore city.

### 3.3. PARTICIPANTS

The sample selection in this research is that of available sample. The samples have already been placed at intermediate level through a placement test and interview. Totally 80 students participated in this study. The number of students per group was 40 of both males and females and their ages ranged from 25-33. Information obtained from a questionnaire revealed that all students are Iranian and their native language was Persian (a national language) while they were using English as a communicating/second language in India. They had English background from their school and private institutes. The background information for the final pool across the two groups A and B based on Cognitive Style is shown in table 3.1.

**Table 3.1. The Background Information of Final Selected Participants in Each Group**

<table>
<thead>
<tr>
<th>Group</th>
<th>Total Number of Participants in each group</th>
<th>Age range</th>
<th>Gender</th>
</tr>
</thead>
<tbody>
<tr>
<td>A (Field-Dependent)</td>
<td>40</td>
<td>25-33</td>
<td>22 males 18 females</td>
</tr>
<tr>
<td>B (Field-Independent)</td>
<td>40</td>
<td>25-33</td>
<td>17 males 23 females</td>
</tr>
</tbody>
</table>
3.3.1. PROCEDURE TO COLLECT PARTICIPANTS

Two months before carrying out the research methodology, the researcher started to collect participants in Mysore, India. For this purpose, the researcher has visited some colleges in Mysore including Maharaja Degree College, M.C.M First Grade College, St. Philomena’s College, Farooqia Dental College, JSS Medical College, State Open University and different departments of Mysore University and met and interviewed with Persian students in Iranian Association in Mysore. As for encouraging the students, the researcher explained the purpose of the research and also pointed out that their participation and cooperation in this study will contribute to the ESL writing and reading development and may affect positively on their performance in these skills. As well, the researcher mentioned that their cooperation is a big and precious assistance to the researchers, teachers and educational societies. After trying for two months, finally, 100 students from different colleges and departments have been collected but the data of 80 students were analyzed, because some of the students were excluded from the study based on their extreme scores on the proficiency test and neutral scores on GEFT.

3.4. SAMPLING

The study was quasi-experimental in nature; two classes of Iranian ESL students at Iranian Association of Mysore, India were included in this study. This type of sampling which is referred to as convenience or opportunity sampling is the common type of sampling in second/foreign language research and is commonly used when the participants possess specific key characteristics that are related to the purpose of research.

Generally it ought to be stated that a real experimental design need three significant basic situations: 1) getting a sample from a well-defined population, 2)
random assignment of individual learners to different groups, and 3) using a control group, most of the studies about the impact of cognitive style on second/foreign language skills adopt a quasi-experimental design due to the first and second conditions cannot be easily met in teaching of second language skills. This study employed posttest design without a control group which is one of the subcategories of Quasi-Experimental study.

3.5. HUMAN SUBJECTS ISSUES

An informed consent form was prepared by PhD supervisor and submitted to the head of Iranian Association in Mysore City and participants for contributing in this research (See Appendix 1). Additionally a permission from the Head of that Association was also acquired (See Appendix 2).

3.6. DESIGN

The study employed a post essay writing test for evaluating general writing performance and post achievement test design with two groups of Iranian students which were randomly assigned to two experimental groups. In group A, Field-Dependent Students and in group B, Field-Independent Students have been instructed both Process and Product approaches of writing and the two groups contributed in General Writing Test and Post-Test. Totally, the treatment for both groups lasted 3 months. Moreover reading comprehension test and other instruments were conducted in both groups which will be explained in next sections.

3.6.1. VARIABLES OF THE STUDY

The independent variable in this study is Field-Dependent/Independent Cognitive style and the dependent variables are the performance of Iranian ESL students in Process and Product Writing Approaches and Reading Comprehension test.
3.7. INSTRUMENTS

3.7.1. TREATMENT MATERIALS

For the purpose of engaging students in communicative utilization of English language, process and product writing approaches instructions were used as treatment instruments in this survey. Two types of tasks were employed in this survey which asked participants to write in English. In group A the students were asked to write based on both process and product approaches. One and half month time was allocated to treatment of each writing approach. The topic of writing was chosen according to the participants’ interest. For instructing the process approach of writing, after generating ideas by conducting a group discussion they began to write going through different stages of drafting, revising, redrafting and editing. As for the Product approach, the participants were asked to write about the same topic after explaining and discussing a model text in terms of its structure, organization, etc. They were asked to complete the model text on their own way. The same procedure was done in group B.

Prior to treatment sessions, all the material had been piloted on two classes of Iranian ESL students in the same place and based on the result of piloting; process and product writing instructions were adapted to the level of the students. The method of treatment was carried out in this study.

3.7.2. MEASUREMENT INSTRUMENTS

To evaluate the effect of cognitive style on the students’ performance in process and product writing approaches, general writing and reading comprehension, the pre-test as a general writing test, post-test of essay writing and reading comprehension test were employed.
3.7.2.1. GENERAL ENGLISH PROFICIENCY TEST

Before conducting the pre-test and treatment, Nelson English Language Test for intermediate learners by Fowler and Coe (1976) was administered to the classes to ensure that the participants in each group were homogenous. The test consists of a cloze test and 50 multiple choices questions (See appendix 3).

3.8. RELIABILITY AND VALIDITY OF THE MEASUREMENT INSTRUMENTS

In order to ensure that the measurement applied in the study produced valid results, following Hughes’ (1989) advice, the researcher asked two university teachers to offer an unbiased judgement as to whether the grammatically judgement tasks had content validity. Both teachers held a Ph.D. Degree in Linguistics and had 20 years teaching experiences in university. The research instruments were all piloted before they were started. Reliability of the reading comprehension test and essay writing pre-test and post-test were evaluated by them.

3.9. DATA COLLECTION AND PROCEDURE

One week prior to treatment, the Nelson Proficiency Test was done in both groups selected in this study, for the purpose of homogenizing the learners (in order to linguistics proficiency). A number of outliners in each group whose proficiency scores were too high or too low were identified and their subsequent general writing test and post-test scores on measuring instruments were removed. One week after conducting the English Proficiency Test, the GEFT test, Essay Writing pre-test (General writing), reading comprehension along with its feedback survey and ownership questionnaire were administered in both groups. The treatment sessions have been done thrice a week and each session lasted 60 minutes.
3.9.1. PROCEDURE OF PROCESS APPROACH TREATMENT

For the purpose of this study both groups of field-dependent and field-independent students were instructed by two approaches of writing, Process and Product, totally for three months and each approach in one and half month. For instructing the process approach, in the beginning phase the participants were introduced to the concept of writing as a process. The concentration is on ideas discovering for writing. The participants were asked to examine various brainstorming strategies, for example creating notes, employing mind mapping and utilizing questions to produce ideas on the given topics. For sessions 1 – 18, participants were instructed by process approach of teaching writing. The process in teaching with a process approach was arranged as following order: generating ideas for selected topic, arranging or organizing ideas, writing summaries or short sentences, making drafts, peer review and revising drafts. In each phase, before the participants individually produced text for marking, they practiced writing a passage with a peer. After this step, they wrote their thoughts on their process writing, discussing about their overall process of writing, their writing strategies or skills employed, and the processes of writing various passages.

3.9.1.1. EXAMPLE OF ACTIVITY FOR PROCESS APPROACH

**Topic:** Why People do workout?

**Aims:**
- To enhance students’ abilities to arrange information and transfer the information into a text.
- To enhance students’ abilities to redraft, revise and make progress to their writing.
- To enhance students’ abilities to make questions.
Procedure:

- Prewriting phase:

Explanation: In this step of the activity, the instructor motivated students’ creativity, to make them think how to move toward a writing topic. In this step, the most significant thing is the movement of ideas, and it is not always essential that students really make more (if any) text. After that the instructor suggested some solutions on how to develop their primary ideas.

- Write up the topic

**Why People do workout?**

Tribble (1996) claims that assigning tasks that create real difficulties to the learners, will make their motivation high and make a feeling of success. The researcher realized that it can be true in her personal experience and that by employing students in some activities that 1) it is interesting for them, and 2) they can offer positive feedback, as well they can make an accurate active and interactive writing setting.

- Group brainstorming on the suggested topic (Why people do workout?)

As it is common, starting is usually tough, so students divided into teams swiftly, worked together and wrote down all the thoughts that come to mind in related to the mentioned topic. According to other teachers opinions, 5 minutes can be efficient. Brainstorming entails thinking swiftly and without pause and hesitation, which can finally result in an attracting piece of writing. The instructor stayed in the backdrop during this step, only provided language support if students required so as not preventing students in the creation of their ideas. Assessing ideas at the time of brainstorming can be threatening, and can cause a negative impact, restricting the creativity the process is proposed to develop.
• Evaluating ideas
Students have been motivated to expand their ideas into a mind map, linear form or spider gram. It is in this phase that students assessed the usefulness and quality of their ideas. A spider gram or mind map was as well, a formed representation of information that could be more comfortably transformed into a draft. These graphics as well, created the (hierarchical) correlation of ideas more easily clear that assisted students in constructing their texts.

• Questioning:
In group discussion phase, they created a lot of questions about the given topic. The instructor tried to offer accurate responses quickly that could assist students concentrate on reader as they think over what the audience need to know. The responses to such questions made the basis of the writing. Simultaneously, the instructor had to supply more guidance in student’s improving ideas in an encouraging and positive way. The entire above activities affected in a best way as done in teams as groupings made the tasks more energetic and more delightful. Additionally, students worked contributory, helped each other, then the environment of the writing class was less daunting, and students were not scared of the difficulty of writing tasks.

• Writing Production
This step engaged the students in writing the initial draft of their passage with a friend. Such pair work assists learners observe that writing actually is contributory, a correlation between reader and writer. Commonly, the writer conceived a reader, but contributory writing supplied each writer with a reader and caused the task to be more interactive and realistic.
Contributory and quick writing:
The learners wrote swiftly on a topic during five or ten minutes without thinking about accurate punctuation or language. Writing as swiftly as possible, if they were not able to remember a word, they made a gap or wrote it in their own language. It is important to continue writing. Afterwards, this passage has been revised. Simultaneously, it can be discovered that contributory writing can be absolutely encouraging. It enables the stronger learners to assist the weaker ones.

Entire class text construction, writing on the blackboard and parallel writing
These strategies have their basis in product writing but are useful in supplying a framework for lower level learners to follow. These method can create a feeling of common success, while dispelling the anxiety of being left to “go it lonely”, absolutely untrained.

Learners confer to each other and make a contributory text
At the time of doing this activity, the instructor went around and listened to their ideas, provided response or answer questions on lexical items, structure, the order of display of the information, the validity of a discussion, etc.

Revising

Self-editing
A successful writer should be taught how to assess his/her own language, how to enhance via checking their own passage, exploring errors. In this way students will become stronger writers.

Peer Editing
Learners interchanged their initial drafts of a passage and mentioned changes that are necessary to assist the audience (e.g. paragraph divisions, better organization,
vocabulary choice, sentence variety). As well, they acted like each other’s editors (detecting repetitions of vocabularies, grammatical mistakes, spelling errors, etc.). Simultaneously, learners were required to make written comments to the student writers.

Peer editing is an effective instrument for all level of students, for instance, for the intermediate level learners, it can be employed to evaluate how efficiently the questions of an essay have been responded. Entire class argument of how a specific text might require adjustment based on the reader it is addressed to. One of the methods that used effectively was to ask learners to imagine that the instructor is a little child, and to describe what they assume to be a direct topic (for instance, Why People do workout?) in words that a child would realize. Afterwards, the instructor asked them to describe the same topic to him/her, only this time the students imagine he/she is a teacher, and the instructor asked them to adapt their language properly.

- Evaluation:

Writing takes so much of time and attempts, and therefore it is just fair that the students’ works are assessed properly and suitably. Positive opinions assisted student to enhance their confidence and make good sense for the next writing task. According to the recent studies and review of the literature, evaluation is most effective if it is done according to what the student has requested for.

- Final draft

Drafts have been given back and the students made improvements according to peer review and response. Afterwards, they wrote the final draft. Additionally, learners could also interchange and review each other’s writings and probably even write a feedback or response. This procedure of process approach instruction has been done regularly with different topics.
3.9.2. PROCEDURE OF PRODUCT APPROACH TREATMENT

In product approach, most likely writing tasks patronized students to copy, imitate and convert samples offered by textbooks or instructors. As followed product approach for sessions 19-36, the students were introduced and offered a topic, for instance, “Changes in the Family”, from the book entitled “English Skills with Readings” written by John Langan (2002). For writing a paragraph, the learners were asked to accustom themselves with the content of the topic of the book supplied. For the controlled step, the students required to create some simple sentences concerning the given topic suggested from the mentioned book. After that the students created a piece of guided writing according to the content, and, at free writing phase, they wrote some sentences nearly connected with the given topic, for instance, an explanation of their own family and evolutions occurring in the past few years. After composing the text, the learners submitted it again after comments and modifications. While the learners received the marked writings, they rectified the mistakes by modifying either the entire composition or those sentences that included mistakes.

This product approach utilized here was done regularly during the one and half month treatment as they were, more accustomed with this teacher-centered circumstance where the students were not as expressive as the instructor. In the, properly named, product approach, learners’ attention concentrates on cohering to and copying samples and particularly on accurate language. Commonly, learners, in the class, pursued studying sample passages and tried different exercises intended towards attracting attention to related traits of a text. This procedure of product approach instruction has been done regularly with different topics. A post-test was conducted two sessions after the last treatment in each group. The post-test included essay writing based on the writing approaches employed in two groups.
3.10. DATA COLLECTION INSTRUMENTS

3.10.1. GROUP EMBEDDED FIGURES TEST (GEFT)

The group embedded figures test created by Witkin et al. (1971), was executed among the learners to evaluate their field dependency. The GEFT is a paper-and-pencil and scheduled test including a set of 25 complicated geometric figures in different forms and shades (See Appendix 4). Witkin and his colleagues announced that the instrument reliability was .89 and validity of the test was .82 (Foel and Fritz, 1994). The primary section, including 7 figures, takes 2 minutes and is not involved in scoring because it is targeted for practice to confirm that 5 minutes are given to the participants to finish each section.

While conducting the GEFT, the participants are offered a test booklet and a pencil. They are asked to discover a plain figure (located on the back side of the booklet) hidden within a complicated shape and to draw every single figure they discovered. The participants’ proficiency to discover or “disembed” the simple figure, swiftly, and draw it properly by pencil demonstrates their field dependency degree. It has been realized that FI learners are stronger in discovering the hidden figures than FD learners. Parts two and three of the GEFT include 18 figures; one point is allocated for every correct item, thus, 18 is the highest score. Slipped figures were scored as wrong. Scores for the GEFT are usually divided into quartiles developed by the author (Witkin et al., 1971). Cakan (2003) claimed that the benefit of the GEFT is that it is non-verbal and needs a minimum level of language proficiency for conducting the test. Additionally, the psychometrical features of the test have been verified to be absolutely rational in cross-cultural environments. To evaluate students’ cognitive styles, the researcher used 1/2 stand deviation above or below the mean as the cutoff score of FI/D. Moreover, the researcher ignored the mediocre of the test
distribution that is the participants whose test scores were within 1/2 stand deviation above or below the mean, have not been counted. The researcher only took the upper and bottom part of participants into account, who could be simply, recognized as either Field-Independent or Field-Dependent students. Therefore, FI students’ GEFT scores were within 17-18, and FD students’ scores were within 0-11. Students whose scores were within 12-16 were considered as field neutral individuals and were excluded from the survey. The GEFT reliability in this research was computed as .72 employing split half methods.

**3.10.2. READING COMPREHENSION TEST**

Reading Comprehension Test includes 40 questions in different styles like true-false, multiple choices, classifying, filling the gaps, paragraph matching and yes-no questions, which is a valid and reliable test utilized as a proficiency test (See Appendix 5). In addition, since this test is obtained from IELTS, its reliability and validity has been ensured. One hour time was allocated to reading comprehension test in each group. The researcher assigned scores to the students’ reading comprehension test according to the IELTS reading test section. The reading score ranged from 1 to 9 (See Appendix 6).

**3.10.3. STUDENTS FEEDBACK SURVEY OF READING COMPREHENSION**

The participants of both A and B group were given an opportunity to supply feedback as far as their cognitive styles they were investigated. The instructor executed the Student Feedback Survey that included a set of questions to obtain the learners’ ideas on reading proficiency (See Appendix 7). This is a Likert–based scale questionnaire that asks a set of questions from both Field Dependent and Field Independent. The outcomes of the questionnaire supplied worth information which assisted in clarifying the conclusions of the research. This survey questionnaire
included in 16 multiple-choice questions schemed to gather information connected with their thoughts and ideas about reading. A consent form was attached to the questionnaire that notified the participants that filling out the questionnaire meant that they agreed to take part in this research. For insuring the validity and reliability of the questionnaire it has been piloted to a group of 40 students same as the participants and its reliability was proclaimed as admissible (r=0.61).

3.10.4. ESSAY GENERAL WRITING TEST AND POST-TEST

For the purpose of evaluating essay writing proficiency, the researcher followed IELTS writing scoring method. The writing scores ranged from 1 to 9 (See Appendix 8). This approach to writing assessment has been advocated by several scholars in writing assessment. The researcher proposed three topics for writing an essay in general writing test and post-test and at the time of general essay writing test, the students of both groups were asked to record the time of completing task in addition to researcher’s control. All topics were different from each other in order to prevent test-wiseness. 45 minutes was assigned to the post essay writing task that the learners completed the task in different times. The marking of the essay has been done by the researcher. The final marking for each student was the average of the scores given by the two raters. To make sure inter-rater reliability, a practice session was held with regard to the IELTS scoring system; and also the two raters could completely comprehend the rating scale. In order to make certain the consistency of the raters in scoring, they corrected the writings of 45 students and their inter-rater reliability was calculated. The inter-rater reliability of 0.82 was obtained which is quite high and statistically significant. Some samples of students’ essay writings as an example are mentioned in the appendices (See Appendix 9).
3.10.5. QUESTIONNAIRE OF OWNERSHIP IN WRITING

As for testing the relationship between field-dependent/independent cognitive styles and ownership in writing the students were asked to answer some questions about their attitudes and ideas toward ownership (See Appendix 10).

3.11. DATA ANALYSIS

In the beginning, all scores were entered into SPSS (Statistical Package for Social Sciences) and the descriptive statistics for each group’s performance on the assessment tasks of the pre-test and post-test essay writing, GEFT and Reading Comprehension Test were computed. Means and standard deviations were computed in order to collect data on the central tendency and variability of each group’s score on each assessment test. Groups’ mean scores of the proficiency test were submitted to Independent Sample t-test to make sure that the students in the groups were not significantly different in terms of language proficiency and subsequently a number of outliers were removed from the study. Next in order to find out Field-dependent/independent cognitive style had any effect on writing approaches, the independent sample t-test for assessment of cognitive style was given. In continue, Independent Sample t-test was used for pre-test as general writing performance test and post-test scores on process and product essay writing. The data of two questionnaires of ownership in writing and reading comprehension have been analyzed through SPSS to find out the percentages of students’ responses.

3.12. SUMMARY OF THE METHODOLOGY

In this chapter, the exact characteristics of participants, the type of sampling, treatment and measurement instruments and methods of scoring the data for both the quasi-experimental and survey were discussed in detail. In brief, the participants in
the quasi experimental study consisted of 80 Iranian ESL students aged 25-33 studying in different colleges in Mysore City, India.

The type of sampling was convenience sampling, which is the most common type of sampling in SLA studies and the assignments of classes into two different treatment groups was done on a random basis. The treatment tasks included instructions of process and product approaches of writing for both A and B groups. The measurement instruments consisted of GEFT, Reading Comprehension Test, Feedback Survey, ownership questionnaire; general writing test and post-test essay writing were used in both groups. The reliability and validity of the instruments were established prior to the study and classes were also made homogenous in terms of linguistic proficiency based on a proficiency test for intermediate levels, which was administered before the Reading Comprehension test conducted and treatment started. The data for writing approaches essay writing test coded by a second competent rater to ensure the inter-rater reliability. The aim of this method is nothing but to help the students who can elevate their writing and reading proficiency through discovering their individual characteristics. Despite the fact that there are numerous opinions by teachers and scholars about the writing and reading proficiency of the EFL/ESL students of different cognitive styles who come from different cultural backgrounds in several countries, very few studies have explained the impact of cognitive style on writing ability. As demonstrated in this chapter, GEFT, reading comprehension test, treatment of product and process approaches of writing have been done in two experimental groups to investigate whether cognitive style affects their style of writing and reading comprehension ability. In addition as stated in previous part, cognitive style plays a significant role in accuracy and proficiency of EFL/ESL
students in writing and reading comprehension and also impacts on adopting the writing approach.

In chapter 4, the results of studies will be analyzed and presented. For the quasi-experimental study, the mean scores and the standard deviations of different treatment classes in pre-tests and post-tests will be tabulated and relevant statistical tests will be conducted to find out if the findings are statistically significant. With regard to the survey, frequencies of responses to different items, along with expected frequencies and relevant statistical tests will be displayed in tables. When necessary, the findings of both studies will be illustrated through figures.