Chapter – III

Research Methodology

3.0 Introduction

In the previous chapter, we had discussed the theoretical background of the study. Having furnished in detail the theoretical aspects of the study, this chapter attempts to describe the research design and the methodology used in the study, keeping in mind the research questions. A detailed description of the study such as; a brief description of the subjects, research tools and procedural details are discussed in this chapter. In spite of having a well-planned fieldwork, some anticipated problems surfaced during the course of the fieldwork.

3.1 The Objectives of the Study

As theorized in chapter two, the study examines the effect of explicitly training the students by providing inputs in their writing in the form of multiple intelligences as propounded by Howard Gardner (1983). The selected report writing task carried out for this study is different from the traditional mode of teaching writing skills that they are currently following in class XI, where the teacher writes on the board or dictates for the whole class; rarely conducting any discussion. The present study aims to ascertain how the explicit training with various inputs like linguistic, spatial-visual, interpersonal intelligences which caters to the needs of most of the learners thereby motivating them and at the same time meeting their learning styles ultimately has an effect on their own writing. This explicit training
consequently improves students' writing in terms of content, ideas, grammar, organization and spellings, enabling them to become autonomous and independent learners who take responsibility for their learning. This chapter presents the methodology followed in the study in terms of the process of data collection and the mode of analysis.

3.2 Research Questions

In order to find out whether learner autonomy can be enabled in students through explicit use of MI inputs for their writing, the study posed the following research questions:

1. Does Multiple Intelligences Teaching Approach generate motivation among ESL learners?
2. How far Multiple Intelligences Teaching Approach does helps to develop writing skills?
3. Do the motivation and development of writing skills lead to learner autonomy?

As discussed in the previous chapter, one of the most remarkable features of the theory of multiple intelligences is its provision of at least eight different potential pathways to learning (Armstrong, 2003). If a teacher has difficulty reaching a student in the more traditional linguistic or logical ways of instruction, MI theory suggests several other ways in which the inputs might be presented to facilitate effective learning at all levels. The language concept or skill being taught or learnt may thus be connected with task inputs in the form of:
• words (linguistic intelligence)
• numbers or logic (logical-mathematical intelligence)
• pictures (spatial intelligence)
• music (musical intelligence)
• self-reflection (intrapersonal intelligence)
• physical experience (bodily-kinesthetic intelligence)
• social experience (interpersonal intelligence)
• experience in the natural world (natural intelligence)

Providing such opportunities for students to learn in various ways which make them most responsive, maximizes their potential for successful learning in the academic setting and in real life. Integrating MI into the classroom does not require any major overhaul of teaching methodology either. In general, supplementing and revising existing procedure with creative and innovative ideas suffice (Campbell, 1997). Glasgow and Bush (1996) emphasize classroom use and real world application of thematic and interdisciplinary units that provide cooperative learning and include a variety of tasks accomplished through a choice of activities for MI.

In an attempt to find answers to the above research questions, a study was carried out with XI class students of Navodaya Vidyalaya, Peddapuram, East Godavari, Andhra Pradesh.
3.3 The context of the Study

3.3.1 The Context

The context of my research is Jawahar Navodaya Vidyalaya, Peddaduram in East Godavari district of Coastal Andhra Pradesh. Jawahar Navodaya Vidyalayas are run by the Navodaya Vidyalaya Samiti, New Delhi. Till date, five hundred and nine such Schools have been sanctioned in 34 States and Union Territories except Tamil Nadu. Out of these, 485 Schools are presently functional. The opening of a Navodaya Vidyalaya is based on the proposal from the concerned State/UT Governments offering 30 acres of suitable land free of cost, sufficient temporary building and other infrastructure free of rent or on permanent basis. Moreover, education in the JNVs including boarding and lodging as well as expenses on uniform, textbooks, stationery, rail/bus fare from to their homes etc. are free for all students. The objectives of the Navodaya Vidyalaya Scheme are as follows:

- To provide good quality of modern education, including a strong component of culture, inculcation of values, awareness of the environment, adventure activities and physical education - to the talented children predominantly from rural areas, without regard to their family's socio-economic condition.

- To ensure that all students of Navodaya Vidyalayas attain a reasonable level of competence in three languages as envisaged in the three-language formula.

- To serve, in each district, as focal points for improvement in quality of school education in general through sharing of experiences and facilities.
I selected this school as my context, since I am an alumnus of this institute. Being a product of JNV, I felt that there was a shortage in the quality of instruction provided by the teachers of the school, particularly when it came to English. It was seen that generally the focus was to make the students pass the examination and hence no interest was given to develop the skills (reading, writing, speaking and listening) among the students. As a result, most of the time, as students, we learnt by rote, with school providing hardly any scope for motivation to develop the language skills. Moreover, it was seen that within the school campus the dominant language was the mother tongue (Telugu). This left very little room for students to interact with each other in English. We were never encouraged to open our mouths in class. As most of the students who are enrolled in this school, are from the rural background, there is very little scope for them to learn the English language if they are not given any opportunity to do so in the classroom. As such, most of us always felt linguistically incompetent, be it in speaking or in writing, to face the world outside. However, writing accrues greater significance than speaking especially in an academic context because it is the only modality through which the performance of the students in the examination is assessed. We were scared, as we did not have the language skills to meet the cut-throat competition in the world. Therefore, I selected this school as my context so that I can study the area and find out if the problem lies with the system of imparting education or it is that the students are not really interested in learning.

3.3.2 The Students

The students of Jawahar Navodaya Vidyalayas mostly hail from rural India. A total of 30 students were selected from class XI of the science stream as my subjects for
the study. Out of 30 students 22 were boys and 8 were girls. However, when it came to final analysis of report writing, the sample number dwindled to 17, because they had not successfully attempted all the tasks conducted by the researcher. Most of them were from rural areas in East Godavari district of Andhra Pradesh. Mostly, the mother tongue was used to interact with each other in the classroom. They could speak fluently when it came to Telugu, but when it came to English they hesitated. However, I found out that they were actually interested in communicating in English and a few of them even tried their best to talk to me in English when I first met them. I opted for class XI students as my subjects because they have enough exposure to the language and they do not have to appear for the board exam that year. Besides, these students would require the linguistic competence to meet both the challenges of the academically and professionally.

3.4 Research Tools

The main purpose of the study was to find out the implications that the inputs in the form of MI has on students’ writing. In order to test this hypothesis, a careful study of the context was made through informal meetings with the principal and teachers of the School. Once the context was clear, the students for the study were chosen and the research tools were prepared and the data collection was done. One of the ways to enhance the study design is to diversify the data collection techniques (Patton, 1990). Thus, the research tools used were:

- Classroom Observations
- Student Questionnaire
To obtain a clearer understanding of the study each of these research tools has been discussed in detail in the next chapter.

3.5 Description of the data collection

Before the data collection, an informal discussion and briefing of the students about the research project was held. The researcher, being an alumnus of the context, became an asset in conducting the whole study. The subjects were enthusiastic and showed willingness to participate in the research project conducted. Field study could be divided into 3 Phases: Phase -1, Phase - 2 and Phase - 3.

3.5.1 Phase-1 (Pre intervention) It is basically the first phase of the data collection, which could be divided into two stages: Stage One and Stage Two. This phase is also called the preliminary phase as it is primarily aimed at understanding two questions, which are vital for proceeding this study, namely:

a) What is happening in the classroom?

b) What are the methods that the school follows in developing the writing skills
of the students?

In order to find out the answers to the above two questions, a few classes were observed to attain first hand information about the classroom situations and to become familiar with the students. A base-line data was collected in this phase.

3.5.1.1 STAGE-1:

1) Interaction with the English teachers:

Before carrying out the study, an interaction with the English teacher of Class IX and an English teacher of XI were held to obtain some basic information about the classroom and to find out the method that they were following in class. The following questions were asked in an informal discussion:

a) What kind of writing tasks do you have in class?

b) Do the students have the ability to use the language effectively in their writing?

c) What kind of procedure do you follow in teaching writing?

d) Are the students able to write in their own words?

e) Are the students provided any materials besides prescribed texts for their writing?

f) Are the students introduced to any inputs like reading texts, visual aids and opportunities for discussions before their writing tasks? For e.g. texts on environment, kinds of pollution etc, before asking them to write an essay.
on, "How to protect our environment".

3.5.1.2 Construction and administration of questionnaire to both the students and teachers:

1) Construction of the questionnaire –

After briefing, the students were given questionnaires and were asked to respond to the questions. The rationale behind the use of a questionnaire was to find out the -

- Background information of the students.
- Kinds of writings the students perform in their day-to-day activities.
- Their attitude towards writing.
- Whether any extra help is given in the classroom to enhance their writing.

Thus the questionnaire (Appendix A) was prepared to understand the background information of the students.

2) Administering of the Questionnaire 1

The prepared questionnaire was administered to the students. The students were told that they will not be graded and were asked to give candid answers. They were informed that straightforward and honest answers were needed for the research study.

The students were asked to go through the questionnaire first, before answering them. After going through the questionnaire, the researcher asked them if there was anything that they could not follow or understand.
The students were asked to answer all the questions. They were also told that they could go back and change the answers to the questions, if they realized that an earlier response was not right. The students were told that they could seek any clarification or help while responding. On the whole, the students answered the questionnaire without any difficulty.

3.5.2 Stage -2

This stage is divided into two Phases A and B as shown in the table.

<table>
<thead>
<tr>
<th>PHASE – A</th>
<th>PHASE- B</th>
</tr>
</thead>
<tbody>
<tr>
<td>Task - 1 a) Interaction and brainstorming session.</td>
<td>Task - 1 a) Report Writing R-1</td>
</tr>
<tr>
<td></td>
<td>b) Description of task assigned</td>
</tr>
</tbody>
</table>

Let us describe the phases in detail.

3.5.2.1 PHASE - A: Task - 1 Interaction and brainstorming session with the students before the task. After administering the questionnaire, the researcher had an interaction and brainstorming session with the students on the topic “Population Explosion”. The little discussion for 10-15 minutes was streamlined on the following questions. It was done to activate the background knowledge and also to elicit the necessary information to complete the writing task. It is more or less meant as a
warming up activity. They actively took part in contributing a lot of information as the topic is familiar to all of them and moreover they all belong to science stream.

1. What is population?
2. What is the place of our country in terms of population?
3. Does it affect the human beings and the environment? If yes, how?
4. What are the measures that could be taken to reduce population?
5. As an educated and responsible member of the society, what would be your role to minimize it?

3.5.2.2 PHASE - B: After the brain storming session and listening to their views on the above questions, the first task was given to the students. For this task the students were allotted forty minutes, their normal class schedule.

a) Write a report on Population Explosion to your school magazine.

1) Description of the Task Design:

Instructions were given to the students, asking them to think about the topic and provide as much details as possible in two or three paragraphs, as the report writing that the students had done in the class were never too long. The number of words that the students had to write was not specified; to enable them to write freely and not get burdened whether the report has the specified number of words or not. The students were constantly encouraged to use their creativity, as the report writing that they had done in their writing classes were all dictated by the teacher and the students just had
to follow the sample that the teacher had given in the examination. No extra inputs were given at this stage and the students were given forty minutes to finish their writing.

As mentioned earlier, the task was to let the students assess their own ideas and use their own words in their writings. The students were encouraged to write on their own without taking the help of their friends, which is why free writing was encouraged in order to make them use their creativity. In planned writing, which the students were doing in the class, the teacher provides a stimulus for the writing tasks. In a majority of cases such writings also tend to be more expressive rather than transactional as the students are pouring out their feelings in their writings. In other words these free writings were useful to the students to "give vent to their feelings." (Paul and Bruder, 1976 as cited in Ann Raimes 1996:262). When students are given free writing, it enables them to invent ways of describing their ideas and putting them across instead of the rule bound or planned writings. Furthermore, we can say that such writings produce originality in itself as they were written using the students' own creativity. Those scripts (R1 pretest) were collected after administering the test and the scripts were evaluated to understand the strengths and weaknesses of the students based on the criteria of grammar, spelling, content, ideas and organization.

3.6 PHASE-2 (Intervention) Inputs Used

This phase is again divided into two Stages: 1 and 2

3.6.1 STAGE - 1: The input of verbal intelligence was given in the form of a text.
In this phase, unlike the first phase, the students were provided with reading material related to the topic of ‘pollution’. The rationale behind providing a text before the writing task is not only to cater to the verbal linguistic intelligence of the learners but also for the effects that reading has on writing, as envisaged by evidence of *shared knowledge* that has been summarized in Stotsky’s (1983) and Belanger’s (1987) extensive reviews of corelational studies of reading and writing performance. Their summaries of research findings yielded the following:

a) There are correlations between reading achievement and writing ability. Better writers tend to be better readers.

b) There are correlations between writing quality and reading experience as reported through questionnaires. Better writers read more than that of poorer writers.

c) There seem to be correlations between reading ability and measures of syntactic complexity in writing. Better readers tend to produce more syntactically mature writing than poorer writers.

The reading materials used were authentic in nature and were taken and adapted from internet and newspapers. The topic of ‘pollution’ was chosen with the clear intention of enabling the students to express themselves with reference to the pollution they encounter in their personal lives so that they could be more meaningful. The reading text was used as the reading input especially to cater the learners who were having strong verbal intelligence.
In this stage the text was skillfully used to help the students to read and understand the text completely. Prior to the reading of the text, students were engaged in warming up activities like asking questions about the topic and thereby providing a chance to activate his/her schema and to elicit the background knowledge. Once the researcher felt that they were ready to read the text he allowed the students to do so. At times reading aloud was initiated to make the students' participate in the class and to draw their attention to the text.

While reading the students were asked to make a note of the important points in the text. The students were asked to read a paragraph each, and once the reading session was over, there was an open discussion on the texts where students voiced their opinions. The discussions were accompanied by clarifications and learning new meanings. The reading texts were used as the input needed for the study. Thus, the objectives of the reading texts were to serve as the verbal linguistic input that would enhance the student's capabilities in their writing. As Gebril (2010) observed, the individual scores of reading-to-write and a writing only-task were found to be reliable as the two combined in this study of 115 examinees; rater reliability was also examined. Some of the students had no problems with the reading text, while most of the students asked for meanings of unfamiliar words that they had come across. The reading texts were also intended to evoke responses from the students' personal lives where they could reflect on their own experiences.

Once they were done with the reading of the text they were asked to make a note of the important points of the text. They were told to read whatever relevant material they come across in resources like internet, textbooks and newspapers for the next
class i.e., the last class of that week. By the time they came for the next class i.e. after three days they were asked to write a report on pollution in the presence of the researcher. The answer scripts that were collected then were termed as (R2). Likewise they were provided with two more texts and were asked to write two more reports over the period of the next two weeks, which were termed as (R3 & R4). At the end of that session, a test was conducted on 'Pollution and its harmful effects', the report termed as (R5). The detailed process is shown below in the diagram, Table-3.1

**Table-3.1 Data Collection Schedule**

<table>
<thead>
<tr>
<th>Week No</th>
<th>Class No.</th>
<th>Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Provided text as an input in the form of linguistic intelligence on 'Pollution and its harmful effects' and helped them to read the text in the classroom</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>Write a report Pollution and its harmful effects to your personal dairy. The answer scripts are (R2)</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>Provided a text on Population and helped them to read.</td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>Write a report on ‘Population Explosion’ answer scripts (R3)</td>
</tr>
<tr>
<td>3</td>
<td>5</td>
<td>Provided a text on “Natural disaster Floods” and helped them to read in the classroom.</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>Write a report on “Floods and Its sorrows”, Scripts are (R4)</td>
</tr>
<tr>
<td>4</td>
<td>7</td>
<td>Then finally they were asked to write a report on “Pollution and its harmful effects”. The answer scripts (R5) were evaluated.</td>
</tr>
</tbody>
</table>
3.6.2 STAGE - 2: The input of visual-spatial intelligence was given in the form of pictures and graphs followed by a group discussion (interpersonal intelligence)

<table>
<thead>
<tr>
<th>Week No</th>
<th>Class No.</th>
<th>Experiment</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>8</td>
<td>Inputs like pictures &amp; graphs were given in the form of Visual-spatial intelligence and generated group discussions on earthquakes in the form of interpersonal intelligence.</td>
</tr>
<tr>
<td>6</td>
<td>10</td>
<td>Inputs in the form of picture &amp; graphs and discussion based on deforestation</td>
</tr>
<tr>
<td>7</td>
<td>12</td>
<td>Inputs in the form of pictures &amp; graphs and discussion based on Tsunami.</td>
</tr>
<tr>
<td>8</td>
<td>14</td>
<td>They were asked to write a report on the topic “Deforestation”. (R9)</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>Write a report on earthquakes (R6)</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>Write a report on “Deforestation and its affect on planet earth” (R7)</td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>Write a report on Tsunami and its destruction (R8)</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>Finally they were asked to write a report on the pretest topic “Population Explosion” (R10)</td>
</tr>
</tbody>
</table>

3.6.2.1 Supplementing Pictures and Graphs

The form of inputs that provided to the students was changed from fifth week. The inputs given here were to cater primarily to the ‘spatial-visual’ and ‘interpersonal intelligences’ of the students. Students were provided with the colorful pictures and graphs related to the topics like ‘tsunami’, ‘floods and earthquakes’ taken and appropriated from internet and newspaper resources. The rationale behind providing pictures is that, not only would they stimulate, motivate and provide a context for learners to write, but also for their meta-linguistic inputs which captures the attention of the students and enables their creativity to flow.
Educational theory and cognitive psychology research suggests that visual learning is among the best methods for teaching students of all ages. By turning abstract ideas into visible concrete ones, visual learning techniques help students to understand and interpret information. These techniques can provide a structure for writing, reporting, analyzing and discussion and can help students to focus their thoughts and ideas.

Visual aids are pictorial representations of the concepts used for teaching. Visual aids are most effective when the information they contain are organized in a systematic manner. Breaking information down into smaller chunks and grouping similar chunks together helps students relate and retain information more efficiently. Storyboarding or picture writing can be a useful tool to help students develop and improve their reading and writing skills. Picture writing is the source of all written languages. By displaying information graphically, through picture drawing, students can organize their thoughts into a comprehensible order and then use the pictures as a guide for writing.

Building stories through pictures is a visual learning technique that has proven effective at helping students overcome barriers in reading and writing.

The potential for learning greatly increases when educators use visual aids in the classroom. Visual aids can be interactive and can help to customize the learning process. When children have something interesting to look at, it helps the teacher to hold their attention.

Visual aids affect learning by helping the children to keep their attention focused on the visual aspect of the presentation. These aids can help children to break down information and manage it on their own. Using visual aids in the classroom is a good way to make a lesson more memorable to the students involved. They are learning
tools that can make an abstract idea become more concrete to the learner. They help the student to focus his thoughts and ideas on the subject, which in turn helps them to understand and interpret the information being presented. Charts, pictures, graphs, PowerPoint (slide show) presentations, skits, and other performances are all examples of visual aids. Visual learners are the most receptive to these, because they learn new information mostly through their eyes.

Prior to the distribution of the pictures, students were grouped into six groups with one group leader to coordinate the whole group. Then the teacher exposed them to the pictures of a specific issue. The discussion was streamlined by a set of questions which actually grab the attention of the students and help them to recall the background knowledge of the topic. The rationale behind the discussion was not only to cater to the interpersonal intelligence of the students but also for its advantages.

3.6.2.2 Discussion as an input

Discussion can be a powerful means of enabling students to engage actively with course material and develop their own views based on sound critical thinking. Unlike many good dinner conversations, classroom discussions are purposeful and require preparation. Having a good class discussion depends on four basic factors:

a) The discussion must have a purpose.

b) Students must have something to say.

c) Students must feel comfortable participating.

d) Meaningful questions must be asked.
Discussion in small groups can help students assimilate new information on complex topics more effectively than participation in the class discussion or lecture. Of the three treatments (lecture, class discussion, and student led small-group discussion), the small-group discussion was more effective in improving the students’ knowledge as they prepared to write. Small-group discussion can provide a powerful means for developing an understanding of complex issues and can facilitate writing about these ideas. Small-group discussion was superior to both weak and strong writers and not only that, students remain on to the task even after the talk/discussion.

Once the class seemed to be charged up with the initial interaction then the researcher allowed them to discuss extensively among the groups. The students were then distributed with the pictures and graphs with which they were supposed to discuss among the groups and verbalize their thoughts which were facilitated by the researcher. This was done to make the class student centered where they talk more, share their ideas, and learn from each other and get more involved in the task. This gave a chance for them to communicate in English in a more realistic and meaningful way. Affective filters like nervousness, tension and tongue-tied nature were completely kept low. The researcher had taken enough care to make everyone participate in the task conducted. At times, the researcher never hesitated to speak in the local language so as to enable the students who could not speak in English and to make sure everyone got engaged in the discussion. Showing the pictures to the student, the researcher asked questions like:

a) What is the picture about?
b) What is it trying to tell the audience?

c) What environmental problem is it referring to and so on?

d) What are the reasons for that particular problem?

Once the students were able to identify the problem, the researcher asked them to discuss it among the groups. They were supposed to discuss the problem based on the hints provided by the researcher like:

a) What can be the definition of the problem?

b) What are the reasons for its occurrence?

c) How does it affect the Nature and the human life??

d) What are the various ways of minimizing it, if any?

e) Any personal experience to recall if they had with the same disaster?

Then the group leader from each group would read out the points to the class. After that the students were asked to take note of the important points that came out of the discussion and to come prepared for the next class, where they had to write a report on the topic discussed earlier. The time gap was intentionally given so that they would refer to other resources like internet, text books, and informal discussions to find out more information on the same topic. It was also meant to teach the students how to access the resources to get the information needed. In fact, it was assumed that learners can be led to autonomous learning in this way. The visual inputs followed by a group work continued for three weeks where three reports were written as shown in the table 3.2. At the end of every input an individual test was conducted. For example, after providing them the text as a linguistic input for three sessions, a test apart from
R2, R3, and R4 was conducted for evaluation. These students' scripts were termed as R5. Likewise after providing inputs through pictures and discussions followed by for three sessions, a test was conducted apart from R6, R7, R8 i.e. R9. Finally, a test (R10) was conducted to evaluate the overall performance with the same topic of pretest i.e. ‘Population Explosion’. This was done intentionally to make them unaware of the topic so as to measure the autonomy that the students have achieved because of the explicit use of Multiple Intelligences Inputs.

On the whole, researcher played merely a role of a facilitator in conducting the task. As the overall focus was on how these inputs would actually motivate the students and help in improving writing skills, there were no explicit deliberations on grammar but a little feedback was given intermittently after every test was done. It is not only on grammar mistakes as most of them surfaced in a study done by Johns (1997) but also certain features related to report writing - like lending a tone of formality and objectivity in writing by the use of passive construction, Latinate verbs (discover, eliminate), context-specific verbs (develop, analyze), negative prefixes (anti-, dis-), discourse markers (with regard to, consequently etc. were taught regularly as per the demand. The use of discourse markers was also taught to enable coherence in the report writing.

In a study done by Johns (1997) where he had interviewed the faculty, it was found that learners were unable to recognize and use conventions and features of academic writing correctly. Further, they produced essays where the language was vague and confusing, read like personal experiences, and were rhetorically unstructured. They had problems with sentence-level features like appropriate uses of
hedging, modal verbs, pronouns, active and passive voice, balanced generalization and even exemplification. According to Johns (1997), most of the errors stem from an incomplete understanding of words or phrases, and a lack of knowledge of different syntactic rules, often as simple ones as subject-verb agreement. Problems in subject verb agreement arise because learners are either not able to recognize noun phrases or treat a countable noun as uncountable or omit the inflection marker -s with either verbs or nouns (Hinkel, 2004). Leki and Carson (1997) interviewed learners, who started training in EAP, and found that learners have inadequate genre-specific academic text vocabulary. The problems faced by the learners were an incomplete knowledge of grammatical features such as the following:

a) Uncountable nouns (e.g. equipment, information, knowledge)

b) Irregular plural forms of nouns (e.g. criterion-criteria, phenomenon-phenomena, medium-media, analyzes-analysis, basis-bases, hypothesis-hypotheses)

c) Quantifiers (e.g. few/a few, little/a little), subject noun phrases with quantifiers and verb agreement (e.g. some/many books + plural verb or some/much information + singular verb)

d) Subject noun+ prepositional phrase and verb agreement (e.g., The researcher with two assistants investigates vs. The researcher and two assistant investigate)
e) Compound noun phrases (e.g. a five-credit-hour university composition course (s), a twenty-five-year-old learner(s) vs. the learners is twenty-five years old).

f) Word order in noun and adjective clauses (e.g. The authors state that they know which way the wind is blowing; It is not clear whether the price will rise; The lab where the research takes place is located in Pennsylvania).

Word order in how-noun clauses (e.g. The scientists described how much they identified the virus; The scale was used to measure how much the minerals weighed)

g) Word order with adverbs of manner, time, and indefinite frequency (e.g. Investors need to make decisions quickly. Usually, car mileage (usually) depends on the size of its engine)

h) The placement of even and also (e.g. she was even/also elected, (also) she also/even finished the book, ..... was high also/even in the 1990's)

i) The placement and uses of enough (e.g. high enough, enough time/funds, enough of that/them, enough to complete the experiment; optional: the placement and uses of almost, almost + enough, e.g. almost + enough time/funds; almost never, almost the same, almost finished/the tallest, almost every [+ noun]).

j) Quantifiers with prepositional with prepositional phrases (e.g. some/many/most managers vs. some/many/most of the managers in the accounting department), most as an adverb (e.g. the stock price of dot-coms grew the most in 1999).
k) Mismatch of the tenses to highlight the sequence of activities and mark an action that preceded another (e.g. last quarter, the learner studied hard, and he gets good grades).

l) Confused between the past tense and the past participle form of the verb and inappropriate use of it (e.g. The articles on the sociology of crime was write/wrote by John Smith; Psychology studies were conduct at Harvard University.)

m) Intransitive verbs in Passive construction: this category included those passive constructions which can never be used in the passive (e.g. This problem was happened in my country; The change in climate was occurred in coastal areas.)

n) Agentive (who does it) an instrumental (by mean of) by-phrases (e.g. The learners are taught by the silent method; Active voice: The silent method teaches the learners.) The by-phrase refers directly to the do-er of the action, however, in the above sentences the there is no do-er which can always be reconstructed to the sentence subject in active voice. Therefore, both the sentences are incorrect.

ESL learners have also been found to face other problems in sentence level like: miss the main verb or its elements; use more than one subject noun (phrase; e.g., Freud, he.....), prepositions used before NPs, miss objects of transitive verbs, miss subjects or complements, over use // constructions and over-use because as a cohesive devices (Hinkel, 2004).
3.7 Phase 3 (Post Intervention)

1) Final report writing task

After providing the students with explicit training in the use of linguistic, visual and inter-personal inputs, the students were asked to write the final report writing task. The task was exactly the same as the first one; the students were not informed throughout the study that both the tasks would be the same, to ensure the reliability of the study.

The students were given the same time limit as the first task; of forty minutes. The students' enthusiastically started writing and some of the students finished the task in thirty minutes. Once the students had completed their task they were asked the following questions:

1. What do you feel about the report writing in comparison with the first one?
2. How difficult/different is it compared to the report writing that you do in the classroom?
3. What do you think about the topic? Do you enjoy such writing/topics?
4. What do you prefer to do given a choice i) the structured writing that you do in the classroom or ii) the free-writing that we just did in the classroom?
5. Did you enjoy writing the task? Which kind of inputs did you find most useful?

2) Interview of the students

At the end of the two writing tasks five students were selected for an interview for the triangulation of the data to get a retrospective view of the study conducted. Interviews are the most common and powerful ways in which we try to understand our fellow
beings (Fontana & Frey, 2003). The interview was a structured one to find out the students' response to the writing task and the role of the inputs provided to them. It was intended to know whether the inputs in the form of multiple intelligences have motivated them to get engaged in the task and whether it ultimately helped them in improving their writing.

3.8 Procedure of Data Analysis

Data analysis adopted mixed analysis i.e. both qualitative and quantitative. The quantitative analysis included the evaluation of the reports (R1, R5, R9, R10) written by the students. The rest of the report writing scripts of the students were used for personal evaluation by the researcher to monitor the gradual growth of the students from R1 to R10. It was carried out to identify the improvement in students' writing from pretest to post test and across reports. At the outset, the performance from the pretest (PT) to posttest (PTT) was evaluated to know the overall improvement based on the criteria of a) Content b) Grammar c) Ideas d) Organization e) Spellings. The levels of the analysis helped in tracking the improvement with the inputs provided on students' writing. A t-test was also included to show the improvement of writing in terms of marks awarded by the researcher from pretest to posttest and across reports from providing linguistic intelligence input to the visual-spatial and interpersonal inputs respectively. The research tools like classroom observation, questionnaires and interviews were qualitatively analyzed. It is believed that continuous writing with the help of multiple intelligences input not only induces motivation among the learners but also increases linguistic accuracy with the proper teacher support. This accuracy in turn helps the student to
improve communicative efficacy in the report writing or writing in general. The improvement in the communicative efficacy was also identified by the following criteria:

i) Use of discourse markers

ii) Range of structures

iii) Range of vocabulary

iv) Organizational Structure

3.9 Conclusion:

In this chapter, details concerning the data collection were provided. These details included the sample students, research tools, research procedure, the research design used for data collection and the analysis of the data. In other words, the summary of the data collection was furnished in this chapter. In the next chapter, the method adopted for the analysis using both quantitative and qualitative tools is discussed. The procedures involved in assessment of reports, tabulation to show the improvement and decrease in errors with the help of quantitative mode of analysis is discussed. Besides, quantitative mode of analysis, the qualitative analysis which includes the assessment of student interviews, questionnaires and assessment of reports for communicative efficacy is also discussed.