CHAPTER –III

METHODOLOGY

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3.1   INTRODUCTION

This chapter presents the methodology adopted by the researcher to realize the objectives of the study. The review of related literature has necessitated the usage of qualitative approaches in understanding the present study.

3.2   METHODOLOGICAL ORIENTATION

The methodological orientation of the study was guided by the nature of research questions:

1.   Which different visual literacy activities can be developed to enhance LSRW of English language among Pre service Secondary Teacher?

2.   How far the visual literacy activities can help in the enhancement of LSRW of English language among Pre Service Secondary Teachers?

Through these questions, investigator has introduced three terms: visual literacy activities, LSRW of English language and Pre Service Secondary Teachers.

With the help of following definition let us try to understand visual literacy:

"Visual literacy as the ability to understand and use images, including the ability to think, learn, and express oneself in terms of images"(Braden,1996).

"Visual literacy is the ability to decode, comprehend, and analyze images in order to construct meaning from visual representations of ideas and concepts" (Burns, 2006).

These definitions indicate that visual literacy is ability to comprehend images through analysis. During this process various other skills can be enhanced like thinking, learning and decoding. Images play the role of stimuli to generate new ideas among individuals.

In present study investigator has developed Visual literacy based activities to enhance LSRW of English language among pre service secondary teachers. Enhancement of any skill can never take place over night. To understand this phenomenon it is necessary to observe this process continuously. It was the requirement of study that investigator should have face to face interaction with pre service secondary teachers and spending longer duration time. The nature of research question guided the investigator to arrive at a decision on the choice of methodology. Hence present study employs 'Case study" as a research strategy.

3.2.1 Case study as a Research Strategy

Yin (1984:23) defines the case study research method "as an empirical inquiry that investigates a contemporary phenomenon within its real-life context; when the boundaries between phenomenon and context are not clearly evident; and in which multiple sources of evidence are used."

In the case study, Investigator examines particular group or event or programme. It is responsibility of investigator to identify what is to be studied. For example, it might be the study of specific phenomenon. It can be major and significant or it can be a small event. A case study can also be about a person. A case study can also be about a process.

Once a particular case has been identified, it is up to the investigator to establish additional parameters. A case study can target a particular aspect of the whole or it can look at many dimensions. It can cover many years or be limited to a short time. It can look at many individuals connected with the case or at just a few or even one individual (Lichtman, 2011). By including both quantitative and qualitative data, case study helps explain both the process and outcome of a phenomenon through complete observation, reconstruction and analysis of the cases under investigation (Tellis, 1997).

There are several categories of case study. Yin (1984) notes three categories, namely exploratory, descriptive and explanatory case studies. First, exploratory case studies set to explore any phenomenon in the data which serves as a point of interest to the researcher. Second, descriptive case studies set to describe the natural

phenomena which occur within the data in question, for instance, what different strategies are used by a reader and how the reader use them. The goal set by the researcher is to describe the data as they occur. Third, explanatory case studies examine the data closely both at a surface and deep level in order to explain the phenomena in the data. For instance, a researcher may ask the reason as to why a student uses an inferencing strategy in reading (Zaidah, 2003). Researchers can adopt either a single-case or multiple-case design depending on the issue in question.

In defining case studies, Stake (1995) distinguishes three types, the intrinsic, the instrumental and the collective. In an intrinsic case study, a researcher examines the case for its own sake. For instance, why does student A, age eight, fail to read when most children at that age can already read? In an instrumental case study, the researcher selects a small group of subjects in order to examine a certain pattern of behaviour, for instance, to see how tertiary level students study for examination. In a collective case study, the researcher coordinates data from several different sources, such as schools or individuals.

3.2.2 Situating the Present Study

The purpose of the study was to observe the enhancement of LSRW in English language through Visual literacy among pre service secondary teachers. The visual literacy based activity was developed to see the process of enhancement during the implementation of activity. The present study was carried out keeping three objectives at the centre which are stated in chapter 1, section 1.8. These research objectives necessitated the need to interact and engage with group of pre service secondary teachers for a longer duration. Hence, to serve the purpose of the study, Shri.S.R.Patel B.Ed. College was selected where investigator was working as a lecturer. Investigator started his work since August, 2012.

3.3   RESEARCH DESIGN

Yin (1998) describes a research design as a 'logical sequence that connects that empirical data to a study's initial research question and ultimately to its conclusions.' The logical sequence is the essential aspect of a research design. In this study the logical sequence evolves or unfolds over a period of time. In the initial

stages of my work I entered the research setting with a tentative research questions and conceptual framework derived from the literature review on visual literacy based studies. In this sense pre-field work, fieldwork and post field work are interrelated and overlap substantially. This has been described in detail in the figure 3.1

I have been teaching methods of English language teaching for eight years in college of education. During practice teaching, I observed that use of visual aid make classroom teaching more energetic. I have been observing this effect for continuous six years during practice teaching. My interest made me to review the relevant literature in the area of visual aids and visual learning. Through this churning, I came to know about visual literacy. I discussed this topic with the experts of English language teaching and all encouraged me to carry out this study. From the earlier stage of the study, it was felt that qualitative data obtained through the interaction with pre service secondary teachers would provide understanding the ways through which the enhancement of LSRW skills takes place through the activity of Visual literacy. The need to understand the enhancement of LSRW skills through visual literacy activity, investigator carried out present study. In the figure 3.1 research design has been described.

FIGURE.3.1 RESEARCH DESIGN
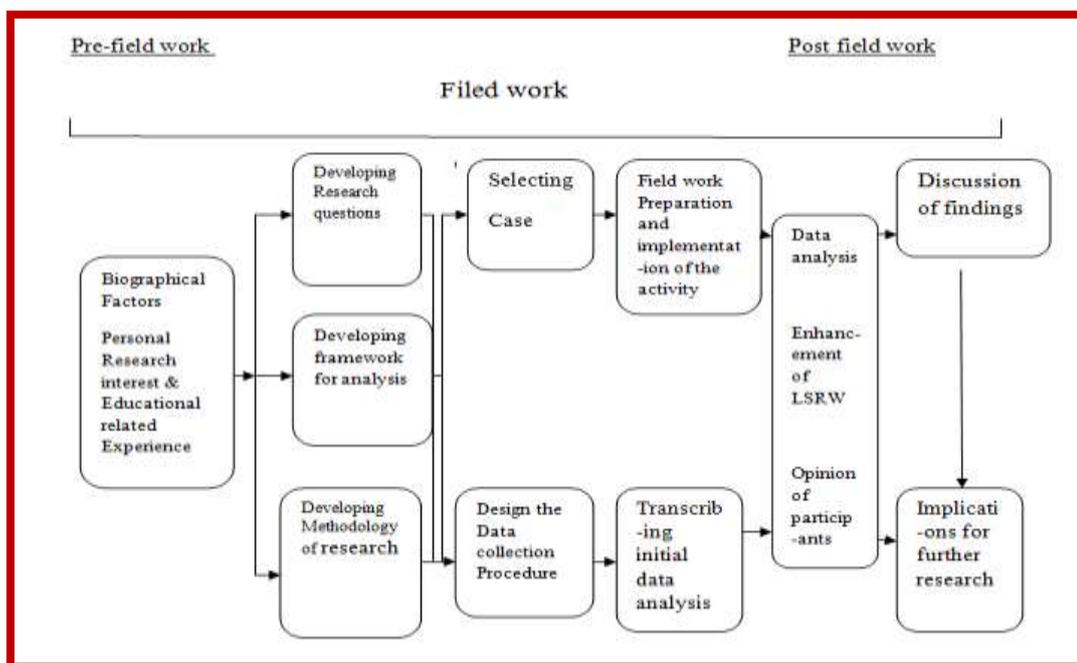
(Adopted from Sharma, 1995 & Ramkumar, 2003)

3.3.1 Selecting the Case Study

For the purpose of this study Shri. S.R.Patel B.Ed. Colllege, was selected. Hence, sample of the study was purposive. The nature of the study required to interact and engage with group of pre service secondary teachers for log duration. Investigator was working as Asst. Prof. in the same institute. It was the second criteria for selecting the case.

I have been working in college of education for last eight years. Throughout this year I used to interact with trainees regarding methods of English language teaching. During method classroom, normally we generate discussion regarding innovative practices in teaching learning methods. I noticed the inclination of pre service secondary teachers towards visual aids during practice teaching. These were the indications for choosing present study. Shri. S.R.Patel B.Ed College was the convenient place For the present study wherein implementation of activity and interaction with pre service secondary teaches could take place.

3.3.2 Gaining Access to the Case Study

As it has been mentioned earlier that the Investigator is lecturer of English language in Shri.S.R.Patel B.Ed College, hence, as sample of the study, Investigator selected pre service secondary teachers who opted English as their main subject of the same college. To carry out this study in the college Investigator had taken permission from the Principal and Management.

3.3.3 Ethical Procedure

The nature of the present study required me to spend substantial time (6 months) in a college, interacting with a group of pre service secondary teachers on day-to- day basis. This necessity required me to be honest to one self and others. Accordingly I sought permission of Principal of the college and staff to conduct research. I expressed my research intentions and provided as much information as possible about the study. I also told them clearly that, what I am going to do with all the information which I collected from the participants. However, with pre service secondary teachers I did not share details of the investigation due to my belief that they might be more cautious about present research and I would not get genuine data regarding my work.

3.4   SAMPLE OF THE STUDY

As per the requirement of the objective of the present study, investigator has adopted purposive sample technique. The purpose of the study was to enhance LSRW in English language through visual literacy among pre service secondary teachers. The present study is Case study where large group is not required. In this study investigator wanted to observe process of enhancement of the skill during implementation of visual literacy based strategies. So, it was necessary for investigator to spend maximum time with the pre service secondary teachers. That was possible in his own institute where he was working as lecturer. Hence, during first semester and second semester of the academic year 2012-13, those students who opted English method as subject, would consist as sample for the proposed study.

3.5   DATA COLLECTION METHODS

A 'bricolage' of qualitative research methods was employed to gather data in relation to the purpose of the study. A bricolage will connect the parts of the whole, stressing the meaningful relationships that operate in the situation and social world being studied (Weinstein & Weinstein,1991). A bricolage is a useful and necessary concept for design researchers as it allows them to deploy available and established strategies and methods, but also grants them the license to create new tools and techniques in order to address questions that are beyond the realm of the established discipline. Methodological bricolage permits the researcher to look at the problem we have with problems, as well as their solution. The bricoleur views research methods actively, rather than passively, meaning that the researcher actively constructs methods with tools at hand rather than accepting and using pre-existing methodologies.

 Table 3.1 illustrates the bricolage of qualitative research methods selected for the present study.

TABLE 3.1 BRICOLAGE OF QUALITATIVE RESEARCH METHODS

Data Collection Methods	Purpose of Methods	Data Source	Information Provided by Data
Entry level and Exit level test of LSRW based on components of the study	To see the enhancement of LSRW Through Visual literacy based on components of the study	Pre service secondary teachers	Visual literacy based activity
Group Discussion	Investigation of identified key concept	Pre service secondary teachers	To see the response regarding Visual literacy based activity
Observations	Firsthand experience of Classroom pedagogy	Participation of Pre service secondary teachers	Classroom context details
Field notes	Contextualization of data and personal reflection	Physical setting; participating teachers; investigator	Description setting, actions and conversations
Document Analysis	Pedagogical intentions	Pre service secondary teachers performance during activity	Pre service secondary teachers out comes
Opinionnare	To cross examine the data	Pre service secondary teachers	To know the concept of Pre service secondary teachers regarding Visual literacy

The present study passes through three stages. The first stage is to develop visual literacy based activity. Investigator evolves entry level test and activities to enhance LSRW. During that process analysis of the entry level test becomes guiding information to evolve activity. The second stage is to observe the process of the implementation of the activity. Here, field notes, observations and discussion of the participants become the source of the information. The last stage of the study is to know the opinion of the pre service secondary teachers regarding the activity. Therefore, opinionnare becomes the source of information. Table no. 3.1 gives detail ideas about the source of the information of the present study.

3.5.1 Test of LSRW

The Investigator prepared Test based on Listening, Speaking, Reading and Writing at the entry level. Investigator wanted to see their existing potential at aforesaid skills. After completing all the activities investigator conducted one more test to see their enhancement in English language. These tests were reviewed by the experts of English language. Investigator received their feedback and made same possible changes.

3.5.2 Group Discussion

The qualitative research interview attempts to understand the world from the subject's points of view, to unfold the meaning of their experiences, to uncover their lived world prior to scientific explanations. Interview research may appear a simple and straightforward task. It seems quite easy to obtain a sound recorder and ask someone to talk about his or her experiences regarding some interesting topic or to encourage a person to tell his or her life story. Kvale & Brinkman (2009) says *"It seems so simple to interview, but it is hard to do well. Research interviewing involves a cultivation of conversational skills that most adult human beings already possess by virtue of being able to ask questions".*

Group discussions are also described as organized group discussion which is focused around a single theme. (Krueger, 1986). It involves informal discussion amongst individuals about specific topics relevant to the concerned situation (Beck, Trombetta and Share, 1986). The techniques envisage a permissive climate, which facilitates fostering a range of opinions about the issues/topic/theme. The goals of focus group discussion are not to build consensus but to elicit a range of opinions from individuals about the issue.

In the present study investigator decided to carry out group discussion to find out the perception of pre service secondary teachers regarding visual literacy based activities. Interviews were carried out after completions of each round of five activities.

Lazarsfeld (1954) identifies three principles of question construction in the context of social research: specification, division, and tacit assumption. Specification refers to the focus of each question; division is concerned with appropriate wording and sequencing of questions, while tacit assumption is determining the true meaning intended by participants' responses. In the present study investigator wanted to see enhancement of LSRW with the help of visual literacy based activity among pre service secondary teachers. Investigator developed questions keeping following areas in the mind:

FIGURE 3.2 AREAS FOR CONSTRUCTING QUESTIONS FOR THE GROUP DISCUSSION
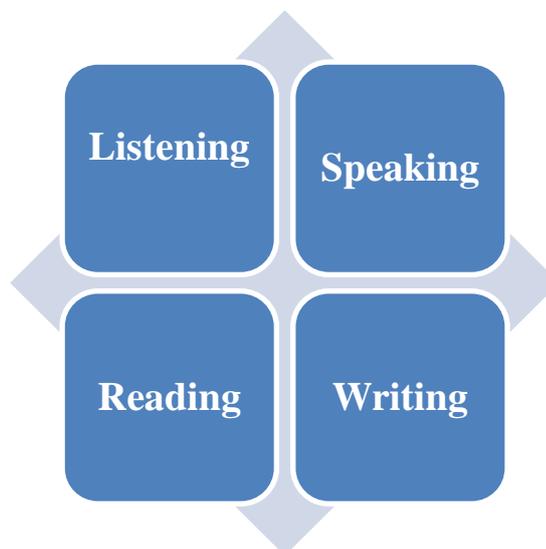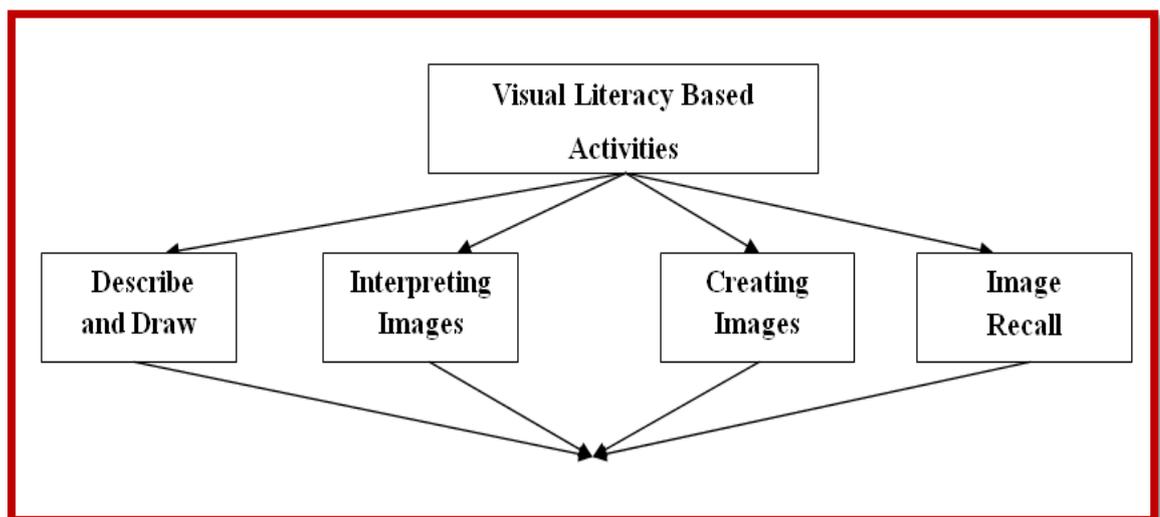
The Investigator wanted to know the perception of the participant regarding activity and LSRW skills. Hence, fig. 3.2 gives detailed idea about the questions of the interview. Investigator will construct question for the interview based on activity and its relation with the LSRW.

➢ *Interview Schedule*

It was anticipated that each interview would evolve into a somewhat unique form, a clear list of issues to be explored. Investigator wanted to know the process of enhancement and opinion of pre service secondary teachers regarding visual literacy based activity. Accordingly Investigator identified the following areas to prepare questions for interview:

- Interest area in teaching, their view regarding English language teaching

- Difficulties during activity

- How does it influence various aspect of English language like: vocabulary, fluency etc..

From this list of issues, possible questions were developed. All questions were discussed with the subject experts and subsequently the questions were modified and finalized.

3.5.3 Observation Schedule

Observation is the process of gathering open-ended, firsthand information by observing people and places at research site. It gives an opportunity to record information as it occurs in a setting, to study actual behaviour, and to study individuals. However, as it was unrealistic that every aspect of each activity could be noted, a number of issues central to the study were identified and these became the focus of observations:

- Among four skills (LSRW) which skill get maximum enhancement and what are reasons behind?

- Nature of interactions regarding activity (Among pre service secondary teachers)

- All four activities (Which activity gives wide scope for the enhancement of LSRW? Why?)

- Other aspects of the language like vocabulary, grammar, comprehension.

These focus issues were written at the top of the investigators notebook to act as a continual reminder of the most pertinent data to be gathered, nonetheless, attempts were also made to record anything that was felt to be relevant to the study.

3.5.4 Field Notes

As recommended by Burns (2000), observations were recorded through brief field notes, taken on the spot, with time references. Field notes are the observer's record of what he or she has seen, heard, experienced and thought about during and observation session. They contain descriptive and a reflective aspect. The former describes what's seen and latter provides investigators ideas about the description (Gay, 2000). Four activities were carried out viz. Describe and draw, interpreting image, creating image and image recall pertaining to listening, speaking reading and writing in the present study. Initially, investigator noted down everything about the performance of participants, their reflections, their problems, and their behaviour and as the research progressed, field notes become more selective.

3.5.5 Document Analysis

All sample participants passed through four activities. According to the nature of activities, they were instructed to developed write up, conduct group discussion, draw image, complete half image etc. The investigator collected various documents during the activity in different forms (like sketch, images, small write up). The analysis of those documents revealed relevant information for the study.

3.5.6 Opinionnaire

Investigator had made attempts to obtain keeping in mind the objectives of the study for construction of an opinionnaire. In the present study, Investigator carried out activities. Hence, opinionnaire has been divided into four parts. To frame statements for the opinionnaire, investigator kept following points in consideration:

- Four skills Listening, Speaking, Reading and Writing

- Components of the skills like comprehension, vocabulary, fluency etc.

- Level of the difficulties

- Enhancement of skills

The investigator had prepared 40 statements based on mentioned areas. It was given to the experts and colleague. The investigator kept one or two negative statements in the first draft of the opinionnaire. The investigator received one comment from the colleague "you should keep 50% negative statements." The suggestions were then discussed with the guide and certain corrections were made in the statements.

3.6   PROCESS OF DATA COLLECTION

The data for the present study was collected through observation, group discussion, opinionnnire and document analysis from variety of sources (refer table no.3.1) the data were collected during fieldwork in three stages.

Stage 1   :   Evolving visual literacy based activities

Stage2   :   Understanding the process of enhancement of LSRW

Stage 3   :   Study the opinion of pre service secondary teachers

3.6.1 Evolving Visual Literacy Based Activities

The data for this stage were collected during June (2012). The data were collected for the period of 20 days. I wanted to develop Visual literacy based activity for pre service secondary teachers to enhance LSRW of English language. Therefore, it was necessary to observe my participants for the study. These data were recorded as a field notes. These field notes were read on day-today basis. The data generated various possibilities and issues, which need to be given importance for preparing the activity. The review of related literature indicated that it was necessary to see the level of pre service secondary teachers at the entry level. Hence, I prepared four test based

on LSRW in English language. An analysis of result and interaction with participants, paved my ways to prepares activities. Initially I had difficulties in recording the data, as I found too many events taking place simultaneously. But gradually I could be able to classify the data with the help of three concurrent activities of data collection and data analysis activities viz., data reduction, data display and conclusion drawing and verification that concerns the present study.

3.6.2 Understanding the Process of Enhancement of LSRW

The activities were implemented among the pre service secondary teachers between August(2012) to March (2012). The data were collected though various sources at this stage. According to the nature of activity, three types of activities were carried out: individual work, pair work and group work. The major source of data collection was interaction with participants, their performance in the activity, observation of investigator and responses of participants during focus group discussion. Investigator maintained field notes to record data. This observation provided me an insight as to how each group has conducted a particular activity among themselves and in relation to each other. The observations usually varied about 60 to 90 minutes in a given day.

I had difficulties in giving equal attention to all the groups. While paying attention to one group the other group might not have got the attention. This was made up partially by talking to them during group discussion. I used to ask general questions regarding activity at the end of the session.

3.6.3 Study the Opinion of Pre service Secondary Teachers

In the present study, third objective of the study was to know the opinion of pre service secondary teachers regarding the activity. To serve the purpose investigator carried out group discussion (refer 3.5) and opinionnaire. It was administered among pre service secondary teachers to know their opinion about activities. During group discussion also same questions, in different form, were asked to participant to triangulate data.

Fig. 3.3 gives detail plan of the data collection through the source of data. Throughout the study observations would be the one of the sources of data collection. During the preparation of the activity, to know the prevailing competency of the participants, entry level test will be conducted. The analysis of test guided Investigator to develop activity. At the end of the study also investigator conducted test to see the enhancement of the participants. After each activity, group discussion was the important source of the data collection. The opinion of the participants was the last source of information which told the opinion of the participants about activity.

FIGURE 3.3 PROCESS OF THE DATA COLLECTION
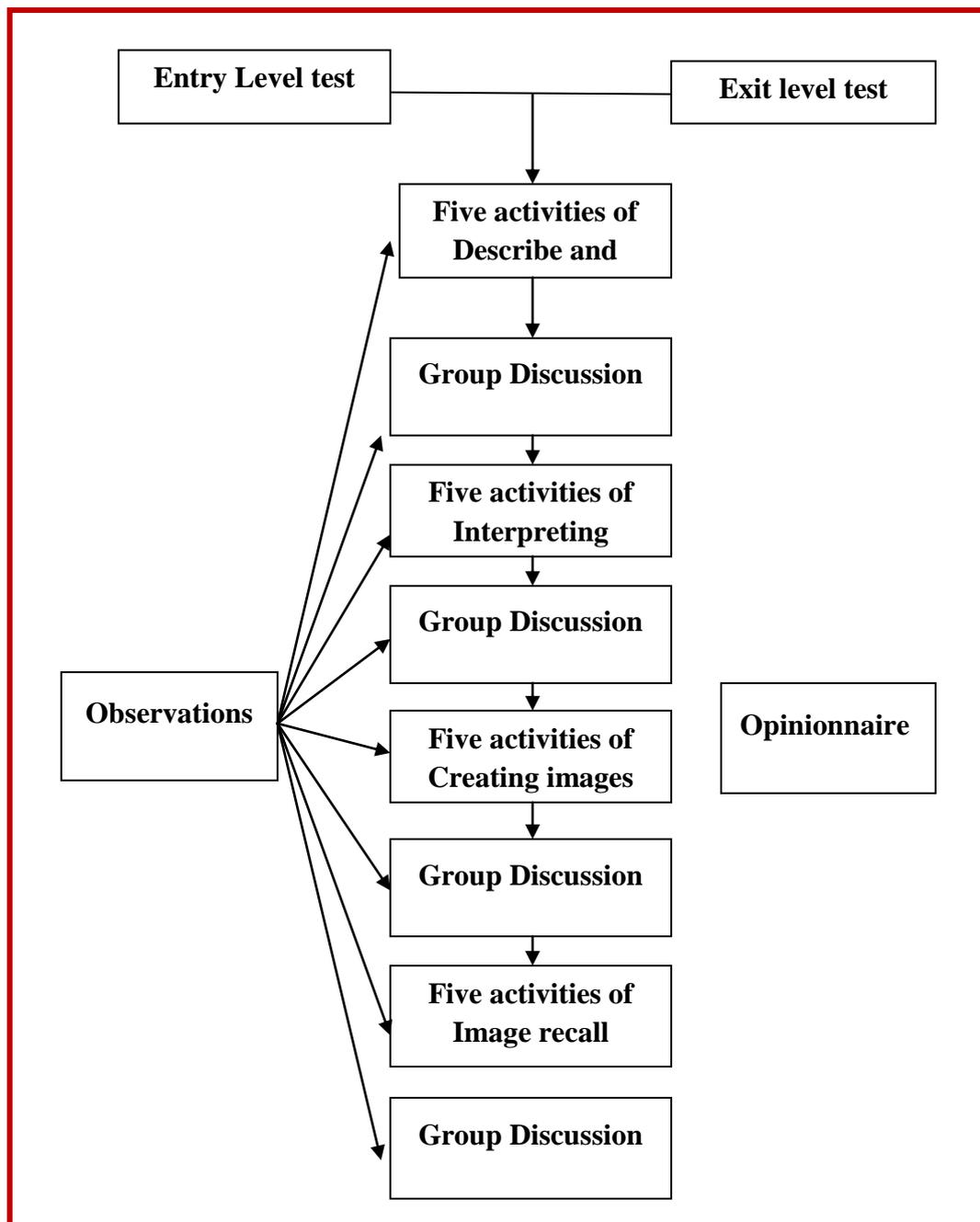
3.7   DATA ANALYSIS

The data analysis was done during fieldwork and post field work. The data interpretation would direct investigator regarding the enhancement of LSRW through the visual literacy based activity. The data analysis describes the units of analysis, procedure adopted for data analysis and the techniques adopted for established validity of qualitative data.

3.7.1 Units of Data Analysis

Investigator carried out present study to observe enhancement of LSRW in English language through visual literacy activity among pre service secondary teachers. Investigator carried out activities among pre service secondary teachers to see the influence of visual literacy based activity. Through the variety of sources, investigator wanted to know their opinion regarding this activity. It became apparent that individual was not the most useful unit of analysis. Thus, for this study the analysis of social events and products that involve the discussion between two or more participants became the necessary part of analysis.

### 3.7.2 Procedure of Data Analysis

The data analysis was done in three stages

Stage one   :   Evolving visual literacy based activities

Stage Two   :   Understanding the process of enhancement of LSRW

Stage Three   :   Study the opinion of pre service secondary teachers

➢   *Stage1: Evolving Visual Literacy Based Activities*

The data analysis consists of reading and re-reading the field notes. The procedure of data analysis and interpretation had been presented:

FIGURE.3.4 PROCEDURE OF DATA ANALYSIS AND INTERPRETATION (FOR OBJECTIVE ONE)
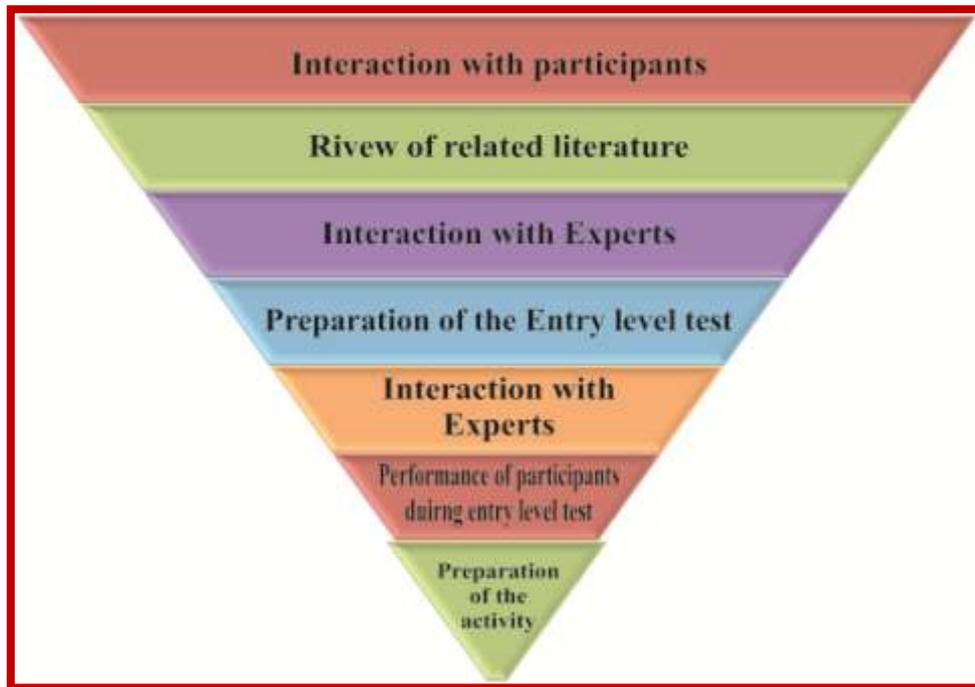
The process of the research is more important than finding in qualitative study. The important aspect of the qualitative study is to collect data from the beginning to end. Hence, data collection and data analysis takes place continuously. The steps of data collection are interrelated in qualitative study. These steps should not be seen as linear approaches, but often one step in the process does follow another. . A fig. 3.4 describes the procedure of data analysis and interpretation for the objective one of the present study. Interaction with participants, review relates literature, interaction with expert, preparation of entry level test and performance of the participants are source of the data for the present study.

➢ *Stage Two: Understanding the Process of Enhancement of LSRW*

The data analysis consists of transcribing the recorded focused group discussion. This was one of the most time consuming activities during post field work. Field notes were prepared during the activities and focused group's discussion. Then I read the un-edited versions carefully, correcting the minor grammatical errors and deleting the redundant information. The video recording, field notes and observations were triangulated to the occurrence of recurring patterns. These pattern were identified and analyzed with respect ob objectives three and four (refer section 1.10) as follows.

➢ *Coding Categories*

The first step in data analysis is to explore the data. The exploration is necessary to obtain a general sense of the data. The further process of analysing text in qualitative research begins when your code the data. Several steps are involved in coding data. Although there is no definite procedure, Creswell (2007) recommend the following steps:

- Get a sense of the whole. Jot down in the margins some ideas as they come to mind

- Pick one document, go through it, and ask the question "what is this person talking about?" Consider the underlying meaning.

- Begin the process of coding the document.

  o Setting and context (e.g. classroom)

  o Perspectives held by participants (poor learners)

  o Participants ways of thinking about people and objects (problem child)

  o Process (disruptions during the class)

  o Activities (students sitting quietly)

  o Relationship and social structure (Students talking to each other)

- Make a list of code.

- Take this list and go back to the data

- Reduce the list of codes to get five to seven themes (categories)

The investigator applied some of the ideas of Creswell to develop code for the present study. Investigator reviewed the data of the present study. At the end of the churning, Investigator developed following list of the data:

- Name of the activity :

- Participants   :

- Pair activity   :

- Group activity   :

- Graphs   :

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Hence, Investigator developed codes for the aforesaid data for the present study. Table no. 3.2 gives detailed idea about the coding of the activities. Table.3.3 gives detail information about the coding of the participants.

TABLE 3.2 CODING OF THE ACTIVITIES

Activity one : Describe and Draw	Activity Two: Interpreting images	Activity Three: Creating Images	Activity Four: Image Recall
D1	M1	T1	R1
D2	M2	T2	R2
D3	M3	T3	R3
D4	M4	T4	R4
D5	M5	T5	R5

TABLE NO. 3.3 CODING OF THE PARTICIPANTS

Name of the Students	Code
1. Daroga Amrin	A1
2. Barod Trupti	A2
3. Mittal .M Patel	A3
4. Patel Vrunda	A4
5. Patel Usha	A5
6. Patel Neha	A6
7. Vashi Nilam	A7
8. Patel Ankita	A8
9. Yadav Nilam	A9
10. Sharma Hemlata	A10
11. Mittal .V.Patel	A11

In the present study, activities were carried out at three level: individual activity, group activity and pair activity. Druing the analysis, each group has been represented with a particular code. This has been prsented in table as follows:

TABLE NO. 3.4 CODING OF THE PAIR

PAIRS FOR ACTIVITY					
PAIR ONE	**PAIR TWO**	**PAIR THREE**	**PAIR FOUR**	**PAIR FIVE**	**PARI SIX**
A1-A2	**A3-A4**	**A5-A6**	**A7-A8**	**A9-A10**	**A11-A1**

TABLE NO.3.5 CODING OF THE GROUP

GROUPS FOR ACTIVITY		
G1	**G2**	**G3**
A1,A2,A3,A4	A5,A6,A7	A8,A9,A10,A11

Hence forth, each group will be referred with respect to these coding categories only. Apart from the codes for group, activity and participants, certain numeric codes were used to present data graphically. Investigator attached one to seven numbers with the level like: Extremely weak =1, Very weak=2, Weak =.3, Average =4, Good =5, Very good =6, and Excellent =7. This number doesn't convey any numeric significance, just indicate us their level in graph.

Illustration:
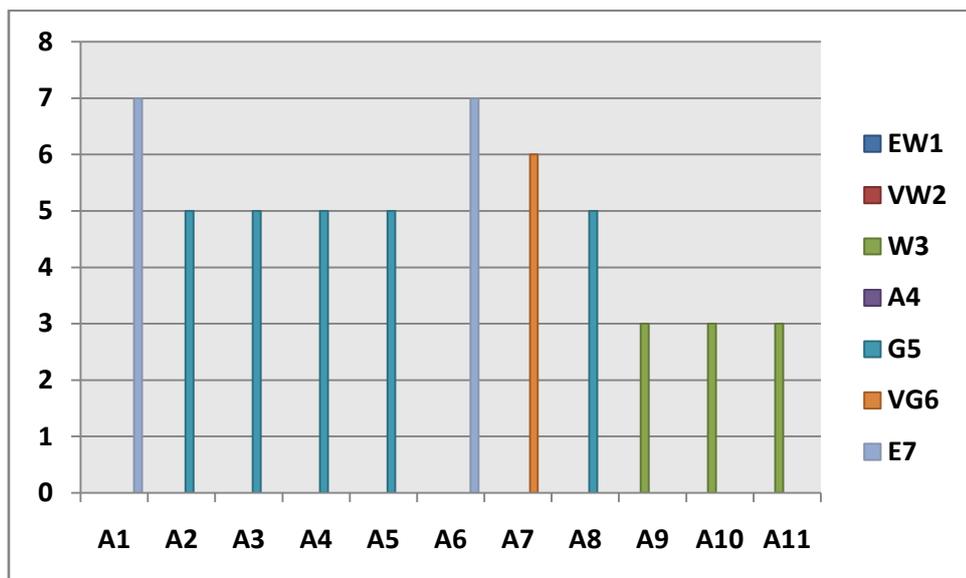
For the understanding of the following chapter, it is necessary to understand these codes.

➢ *Stage 3 Study the Opinion of Pre service Secondary Teachers*

The Investigator carried out four activities in the present study. As it is mentioned earlier, to triangulate data, the Investigator collected same information through various source. After each set of five activities, Investigator conducted focused group discussion. Apart from that Investigator observed the performance of the activity. Further, at the end of the activity, Investigator had administered opinionnaire also.

3.7.3 Establishing Validity of Qualitative Data

In the present study Triangulation was used as a validity procedure, where the investigator searched for convergence among multiple and different sources of information to form themes or categories in a study (Cresswell & Miller, 1990). In the triangulation procedure, the researcher provides corroborating evidence collected through multiple methods such as observation, interviews and documents to locate major or minor themes.

3.7.4 Challenges of Case Study Research

The case study as a methodology offers numerous challenges to the researchers during the fieldwork. In the initial stages it was difficult to record data as too many events were taking place. After sometimes, I could able to adjust, observe and record the participants' activities.

Another problem was that during the videograpy, trainees were becoming cautious and it was distracting too. Then, I gave them some orientation regarding their behaviour. Gradually, they got used to the video shooting.

Sometimes, participants occupied discussing their personal problems, during the activity. It was difficult situation initially. All the pairs/group activities were taken place at the same time. It was difficult to observe all the incidents at the same time.

All the pairs or groups were taking their own time to complete activity. During the observation the investigator noticed that those who complete their activity before stipulated time, their conversations were distraction to other group members.

3.8 CONCLUDING NOTE

This chapter has described the methodology employed for this study, focusing on the methods and processes of data collection and analysis. The chapter acknowledged the research design, selection and recruitment of participants, development of interview and observation instruments, in addition to the procedures employed for data collection and data analysis. The data generated from these research methods were analyzed with the purpose of addressing the research questions of the study. The following chapter presents, discusses and interprets the results from these analyses.