CHAPTER III

FRAMEWORK OF THE STUDY

3. Introduction

This chapter provides the methodology to find answers for the research questions and the issues stated in the preceding chapters. An overview of the approaches to language learning lead to the conclusion that task based language learning reveals that approach best suits the hypothesis of the study. It gives a detailed picture of how tasks in language learning enhance the lateral thinking ability and second language communication skills.

3.1 Research Methodology

The aim of the research was to enhance the second language communication skills. The hypothesis was developing lateral thinking skills in the mind of L2 learners thereby enhancing English language proficiency. Two components were studied simultaneously such as development of lateral thinking skills and the development of second language communication skills. So the longitudinal method of research was chosen to show the effectiveness of the methodology. In Longitudinal studies, a group of learners will be observed for a period of time; examined at a single point; the interpretation of the consistency and variations in the performance will be given at the end of the study. Since each and every act of the learners was considered as important, keen attention on the developmental process of the individual was focused. It was intended to study the proficiency ability and success in the process of learning. Thus the focus of the study was on developing lateral thinking strategies with particular reference to developing language proficiency.
3.2 Case study

The main objective of case study approach was solving problems by applying theories to practice. Case study is one of best methods used by a number of linguists and researchers in the field of language teaching. Wallace (164-165) presented the objectives of case study approach as follows,

- Solving Problems- Finding reason for learners’ disparate responses towards language learning
- Applying theories to practice- Trying out various theories in practice to see whether the theory suits the learner and whether practice of the theory improves the particular ability of the learner
- Generating Hypothesis- Trying out various language teaching methods on learners in a class to improve a particular skill of the target group. If it is successful researcher can theoritise the practice. Theoritising a particular practice is named as formulating hypothesis.
- Providing illustrations- Case studies can be an interesting illustration in proving the research study (successful applications of theories to practice).

The proposed research study applied the theory of lateral thinking skills to practice second language communication skills of L2 learners. This study was not just an observation where hypothesis evolve from the observation alone. The researcher intended to train the learners in applying lateral thinking strategies. There was an ‘intervention’ stage when learners had to get involved in the task to reach the goal.
Here, the researcher gives learners the practice to meet the objective. The major mediator between the theory and data was the researcher. A greater theoretical understanding and possible techniques implemented in the classroom on a set of learners lead the study to attain the triangulation in the research process.

The most reliable and concrete data are necessary to make a complete research. A number of tools were used for data collection as each had its own advantages and disadvantages. The tools as questionnaires, transcripts and verbal data were used. Questionnaires were used to gather the relevant data (process of learning) of the respondents. Transcripts of the classroom interactions were used to record the participation and response of the target learners during the study. Verbal reports of the respondents were collected to record the development process in written communication skill. Since flexibility was the major advantage of case study, it was used for the present study. Respondents chosen for the study were 18 years old studying in an engineering institution where medium of instruction was English. The researcher used the methodology of task based teaching with a lot of flexibility based on the interest and demands of the learners. The structured procedure helped the learners to become aware of language learning process in a self-directed manner. It helped learners to achieve learning autonomy and language empowerment.

3.2.1 Data collection

This study dealt with lateral thinking skills to be possessed by entry level undergraduate college students to attain growth mind set. The age factor had its own cognitive limitations on learners’ abilities to do certain types of tasks based on social and educational background. Based on the age criterion, the study focused on reducing the distance between the actual
performance and the cognitive potentiality of the learner to externalize the inner order to recover the self regulation within the zone of proximal development (Vygotsky Mind in Society: The Development of Higher Psychological Processes) and to attain growth mindset. To make the study more valid and reliable the learners were to be trained in confined academic setup. Transcribed conversations & written responses stood as evidence for development of learner’s ability. The results of the training were recorded appropriately.

The model framework developing lateral thinking of the learners for L2 pedagogy was adopted for this study. The learner’s age and cognitive maturity discussed in the preceding chapters were taken into consideration in the designing of the tasks. The learning context decided in the experiment for the learners were tasks in the presence of facilitator (teacher-researcher). Though the focus was more on speaking and writing, the learners were asked to follow the oral and projected instructions too. Each task invited the learners’ background knowledge and allowed social experience to contribute to their performance in the classroom.

Concept formation skills were introduced to the learners as part of the tasks in the form of strategies for completing the task. The tasks demanded learners’ to follow lateral thinking strategies. If the learners were to respond to the task they had to be confident and follow lateral thinking techniques generally suitable for the task. For this the learners were trained to be aware of their own thinking which helped them to visualize the situation (each task is a different situation) and be innovative in the expression of ideas. The learners were informed that each task was nothing but simple situations related to life and that they need to analyze it and to think of different possible responses for the given task and
express it during the performance. As the content of the task changed from one subject to the other, their ability to transfer the skills from one context to the other became part of the training. This ability to transform the skills assured the application of what was learnt. As the research was classroom oriented one, the data was collected from a set of learners of same age group belonging to the same institution.

3.2.2 The Respondents

The respondents for this study were from various streams of education. That is, from ECE (Electronic and communication engineering), IT(Information and technology of engineering), CSE (Computer science and Engineering), Mech.(Mechanical Engineering) and E&I(Electronics and Instrumentation engineering) etc. Since Case study methodology was adopted, sixty six students of same age group from same institution were chosen for the study. The cognitive demands for the tasks and their response for the demands played a crucial role in the study. Learners’ possessed limited and partial proficiency in the second language.

3.2.3 Age

The study was an experimental study as mentioned elsewhere, conducted on a single group of students. The learners for the present study were first year undergraduate students and they had been ESL learners for not less than twelve years. As the target learners were undergraduate students of technology departments they need English proficiency in order to “read, communicate orally on own subject with English Speaking Specialists they may come into contact with during the undergraduate course or during their professional careers in their home countries or at international conferences….. and
in order to carry out job efficiently” (Wliga M. Rivers 144). In terms of acquisition, at the age of twelve the dominant activity would be social interaction and communication (A.K Markova 201). Therefore, it can be said that this is the age when learners develop their own learning with full-fledged responsibility. The cognitive maturity in the aspect of the age of acquisition was considered in designing tasks. The chosen set of learners attended the sessions beyond their regular classes of other subjects. The motivation level of the learners was accounted high as attending extra classes were an additional load for them.

3.2.4 Educational background

Though the learners had been exposed to English as L₂ for twelve years, most of them never had the opportunity to use English language outside the premises. However, few learners had some exposure to English in the form of rules for communicating in their schools. Most of the learners chosen for the study were the first generation learners. Though the rest of them were second generation learners most of their parents were not exposed to English, hence the learners did not get chance to speak English at home.

3.2.5 Individual profiles of the learners

Individual profiles of the learners were prepared based on different sources such as observation of responses during the performance, observation of recorded performance and evaluation of the responses of questionnaire. Different profile sheets were maintained to record the progress of the learners. The profiles were completed before the study and were graded in scales. Scales were, 5=Excellent, 4=Good, 3=Average, 2= Below average, 1= Poor.
a) Profile prepared by the teacher-researcher: The pre task responses of the learners helped the teacher-researcher to form a profile for each learner at the beginning of the experiment. It was prepared based on the following factors i) Language proficiency was calculated according to learner’ intelligibility in grammar, vocabulary and sentence formation ii) Motivation level was measured by noticing leaner’ ability to continue the conversation with goal seeking attitude iii) Independent Thinking was measured by noticing the ability of accepting various points of views, and managing the complications given by the peer and task iv) Creativity level was calculated by noticing the innovative ideas, information and feelings expressed by the learners.

Table 3.1 and Picture 3.1 illustrated frequencies occurred in each factor of the target learners. Learners’ profiles were prepared individually. Percentage of each factor at the beginning of the study was calculated with the help of descriptive statistics. Mean value of motivation level was 2.06, value of Independent thinking was 2.12, creativity was 2.03 and the mean value of language proficiency of learners was 2.00. According to the results a maximum number of learners scored two and one marks. It showed that the chosen respondents were average level and below average level learners.
Table 3.1 Students profile prepared by the researcher in terms of frequency percentage

<table>
<thead>
<tr>
<th>Marks</th>
<th>Percentage of learners</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
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<tbody>
<tr>
<td>Motivation (a)</td>
<td>1</td>
<td>36.4</td>
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<td></td>
<td>2</td>
<td>36.4</td>
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<td>3</td>
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<td>5</td>
<td>4.5</td>
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<tr>
<td>Independent thinking (b)</td>
<td>1</td>
<td>34.8</td>
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<td></td>
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<td>34.8</td>
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<td>3</td>
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<td></td>
<td>4</td>
<td>7.6</td>
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<td></td>
<td>5</td>
<td>4.5</td>
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<tr>
<td>Creativity (c)</td>
<td>1</td>
<td>37.9</td>
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<td>36.4</td>
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<td>5</td>
<td>4.5</td>
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<tr>
<td>Language proficiency Writing skills(d) Spoken skills</td>
<td>1</td>
<td>39.4</td>
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<tr>
<td></td>
<td>2</td>
<td>36.4</td>
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<td>5</td>
<td>4.5</td>
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</table>
b) Profile: In the beginning of the study, subject teachers were given the evaluation sheets to familiarize with the learners, instructions were given based on the purpose of the profile and the details of the profile. Attempts were made to ensure that the teachers understood the kind of information they had to provide in terms of evaluating learners’ performance.

Remarks were, 5=Excellent, 4=good, 3=Average, 2=below average, 1= very low.
Table 3.2 Students’ profile prepared by the other teacher

<table>
<thead>
<tr>
<th>Participation in studies</th>
<th>Marks</th>
<th>Percentage of learners</th>
<th>Mean Score</th>
<th>Standard Deviation</th>
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<tr>
<td></td>
<td>1</td>
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<tr>
<td>Creativity</td>
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<td>31.8</td>
<td>2.11</td>
<td>1.010</td>
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<td></td>
<td>2</td>
<td>37.9</td>
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<td>19.7</td>
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<td>5</td>
<td>1.5</td>
<td></td>
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<tr>
<td>Language proficiency</td>
<td>1</td>
<td>37.9</td>
<td>1.94</td>
<td>0.943</td>
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<tr>
<td></td>
<td>2</td>
<td>37.9</td>
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<td>5</td>
<td>1.5</td>
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<td></td>
</tr>
<tr>
<td>Performance in exams</td>
<td>1</td>
<td>40.9</td>
<td>1.85</td>
<td>0.899</td>
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<tr>
<td></td>
<td>2</td>
<td>39.4</td>
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</table>

Table 3.2 and Figure 3.2 illustrates frequencies occurred in each factor of the target learners prepared by the subject teacher. Learners’ profile was prepared individually. Percentage of each factor at the beginning of the study was calculated with the help of descriptive statistics. Mean value of the level of participation in studies was 2.00, value
of Independent thinking was 2.11, creativity was 1.94 and the mean value of language proficiency of learners was 1.85. The data given by other teacher also showed that most of the learners were at average and below average level.

Fig. 3.2 Students’ profile prepared by the other teacher in terms of frequency percentage

Based on the preliminary understanding of the proficiency level of the learners by the teacher-researcher and the other teacher common profiles for the learners were prepared. This stood as a reference point in assessing the changes observed in the study and in
making conclusions in the study. The post–task profile of individual learners in the concluding chapter was compared with the pre-task profile to provide evidence of the development in the lateral thinking skills and in L2 of the learners.

3.2.5 College Environment: Karunya University, Coimbatore, Tamilnadu, India.

The institution in which the researcher had registered for Ph.D accepted and accommodated the research proposal readily. The authorities of the institution allowed the researcher to meet the selected set of learners during their leisure hours. Target learners studying in the institution were of middle, upper middle class background. Their socio-economic backgrounds were almost similar to, majority of students studying in colleges where the medium of instruction was supposed to be English. Hence, the selected sample could be treated as representative group of tertiary level learners.

It was observed that rote-learning was encouraged in the classroom. Students were hardly given chance to interact with each other. The learning assessments were made based on the marks given for the learning ability rather than the concepts acquired by the learners. In this context the present study was undertaken.

3.2.6 Period of Data collection:

Forty sessions were conducted. The number of sessions conducted was the number of times the researcher met the students as part of the study. The total 40-session experiment was conducted in a span of four months. Apart from the tasks and guidance, learners were given chance to give feedback in written form. The feedback helped the researcher to understand the cognitive maturity of the learner. Understanding cognitive maturity helped researcher to evaluate the process of learning.
3.2.7 Preliminary study

A preliminary study was conducted for four days on a group of sixty-six learners who volunteered to be part of the study. Out of sixty-six students forty-eight of them were from regional medium of instruction was at school level and 18 were from English medium background. It was found that the learners with regional medium background lacked basic L₂ academic skills. First day was spent on explaining the aims and objectives of the study, emphasizing the need for involvement of learners’ in the study. Questionnaire was given in the second day to add details for the profile. Pre-test tasks related to language and thinking skills were conducted in the third and fourth day of preliminary study.

3.3 Mode of data collection

As the topic was related to active action research, the data was collected in various forms. All the tasks included the written responses of the learners. The reasoning and thinking ability of the learners were captured by observing the ideas and information used in the task. Apart from written responses, the class room conversational activities were recorded regularly during the sessions. Questionnaires were also used to record their feedback which included the questions regarding their attitude, mindset and awareness of the process of learning. The lateral thinking techniques and strategies were built within regular tasks.

3.3.1 Tasks

A number of tasks were distributed over 16 sets. Each set had an objective and each task was unique as the tasks were meticulously designed in such a way that no two tasks would appear similar. Out of repertoire of skills required for learners at college
level, there were a few skills chosen as the focus of this study to maintain the construct validity of the tasks independently.

These include

- Expressing the idea
- Transforming information from one medium to the other
- Ability to carry out the task to find solution
- Identifying and constructing arguments for the goal
- Identifying the main idea of the task in predicting the content
- Self-learning and self-assessing ability
- Being aware of the structure of the context
- Understanding the relationship between task and life situations
- Guessing and remembering the words for the given context
- Giving performance appropriate to the context
- Identifying different methods and ways to solve the problem
- Approaching different methods to solve the problem
- Applying maximum number of skills to attain the objective
- Arranging the information and ideas according to the demand
- Finding new ways and ideas to attain the whole
- Attaining the objective by trying all (both difficult and easier) methods.
The study was completed on time because the estimated time and expected responses were quite manageable for the learners. Not more than one task was given for a day to the learners.

The tasks were designed by following the specific norms indicated by Nunan Task-Based Language Teaching ; Ellis Task-based Language Learning and Teaching ; Skehan A Cognitive Approach to Language Learning ; Cognition and Tasks ; Brown et.al Teaching Talk: Strategies for production and assessment ; Prabhu Second Language Pedagogy. These were followed in the study as mentioned below,

- Introduction of unfamiliar task type was assisted by oral instructions
- The tasks were graded based on code complexity and cognitive complexity
- Content of tasks were related to general situations that
- The tasks were reasonably challenging at each level.

The gradation of the tasks was based on cognitive theories and the characteristics of tasks discussed in the previous chapters. The process of gradation of tasks adopted for the study was also based on proposed elements suggested by Nunan (Task-Based Language Teaching) ; Ellis (Task-based Language Learning and Teaching) ; Skehan (A Cognitive Approach to Language Learning ; Cognition and Tasks); Prabhu (Second Language Pedagogy) . The following factors were considered in the gradation of tasks,

a) Objective: The goal was to achieve an ability through practice
b) Input: The medium of input was oral organized in both tight and loose structure
c) Conditions: Information was presented in two-way interaction at every stage
d) Process: Cognitive complexity included in the method of responding to the input. The maximum amount of cognitive operations and a number of cognitive process was involved in responding to task (tasks included a degree of abstractness in images, pictures and situations which needed maximum amount of cognitive operation and process).

e) Outcomes: The medium of outcome was oral and written

The hypothesis was based on the theories of Piaget and Zone of proximal development theories of Vygotsky. Different genres of contexts with diverse topics were given to the learners, so that the process of learning led to facilitate new concepts. The following section represents the task sets, that show the gradation and the skills involved to respond to the tasks given below,

**3.3.1.1 Gradation of tasks sets and the skills involved in detail,**

**Set 1**

Task 1- Write a paragraph by using the hints for the given images

Task 2- Evaluate the task as easy or difficult

**Set 2**

Task 3- a. Remember words related to the image

b. Form a word web

Task 4- a. Write five sentences, five different messages projected in the form of image

b. Imagination/creativity can be used

Task 5- a. Task 3+ Task 4+ Construct sentences by using these words
Task 6- a. Task 5+ form it in a paragraph as description

Task 7- Evaluate the responses

Set 3

Task 8- a. Task 6 + Use coherent connectors in the description of the images

Task 9- a. Task 3 + Task 4+ Compare and contrast the messages conveyed in the list of collaged images (use coherent connectors)

Task 10-a. Task 9+ make new meanings from the provided images

b. Evaluation

Set 4

Task 11- a. Write words related to the video

b. Identify the main information conveyed

Task 12- a. Task 11 + narrate the video by using coherence connectors

Task 13- a. Task 12+ construct a similar analogy by using different ideas

b. Evaluate the task as easy or difficult with reason

Task 14- a. Find similarities in the videos

b. Identify common information conveyed through videos

c. Express the new ideas you found from the videos

d. Evaluate the task

Set 5

Task 15- Self Introduction

Task 16- Introducing three of his/her friends
Set 6

Task 17- a. Concept mapping
   b. Role play

Task 18- Planning through prediction (Consequences of accident)

Set 7

Task 19- a. Recycle the pattern+ choose a different situation + include an incident from life in that situation + Create similar pattern of conversation for that situation+

   Evaluation

Set 8

Task 20 - a. Collide the present with the past
   b. Explore ideas through conversation in the chosen situation

Set 9

Task 21- a. Colligate points of views, Subjective point of view

Task 22- b. Express the objective point of view

Set 10

Task 23 - a. Take a decision
   b. Incentivize ideas to evince in public

Set 11

Task 24- a. Conceptualize the desire
   b. Instigate mind to find paths
   c. Express different perspectives and assumptions
Set 12

Task 25- a. Discuss deliberately on an open ended topic
   b. Need to discuss in various points of views
   c. Extend the idea

Set 13

Task 26- a. Analyze the tragic end of the short story in discussion

Task 27- a. Suggest a new end for the story
   b. Provide different facts and possibilities for the new end of the story
   c. Provide different facts and possibilities with reason

Set 14

Task 28- a. Group discussion, Differentiate facts and biases from various points of views

Set 15

Task 29- a. Provide a panoramic view of obsession
   b. Discuss the cause for the difficulty

Set 16

Task 30- a. Arrive at a solution through discussion

Task 31- a. Analyze the argument and the language used in the discussion

3.3.2 Types of tasks and lateral thinking skills

The tasks given to the learners focused on lateral thinking techniques and lateral thinking strategies. Every task given to the learners enhanced the focus on lateral thinking
skill and second language communication skill. Explanations for the procedure of implementation of tasks are given below.

### 3.3.2.2 Restructuring

Based on De Bono’ theory of Lateral thinking (De Bono Lateral Thinking), all the tasks were designed to increase learners’ ability to acquire and use a divergent thinking ability. It was because the tasks were open ended and had scope for a number of solutions. So the learners had to use their divergent thinking to attain completion. Hence, every task given to learners demanded a new set of responses. Learners were required to produce a number of responses for the novel nature of the task. Further, the nature of the tasks triggered learners’ interest and involvement that lead to broaden their approaches to the tasks. Responses would be acceptable only when the learner provided suitable information. It would be effective when there was coherence in the information. As suggested in the model for this study, ‘restructuring the patterns of mind’ was necessary to attain suitable concept, coherence of thoughts, and appropriate pattern for the context.

### 3.3.2.3 The attitude ‘Never rejects anything’

The learners were trained to respond to the task appropriately. The task itself was like a problem presented to the learners. The learners had to respond appropriately to various types of tasks by using maximum number of information presented in the mind. The types of tasks included series of problems, syllogisms and analogies. The stages of tasks and the procedures were introduced in the form of strategies to approach problems.
3.3.2.4 Stimulation of attention- a concept formation

Freedom given to learners to make their own choice in choosing the concept for the open ended tasks led to remember old concepts formed by experience in life or the concepts learnt in academic setting which stimulated the mind to form new concept. All the topics given to learners were chosen from familiar life situations. Familiarization of the topic eased learners to bring out the hidden skills and expand the types of concept to reach the objective of the study.

3.3.2.5 Attitude of completion

The tasks demanded learners to use all the possible ways to complete the task. Attitude of completion, attitude of using various ways to reach success were implemented through training. The green field familiar situation enabled learners to enhance this attitude.

3.4 Tools for data collection

Various tools were used in the process of data collection to capture various aspects of progress of the learners during the period of the research. These helped in forming a holistic idea of learning process. Task given to the learners demanded both oral and written responses. Apart from that, the learners were trained to express their ideas and concepts effectively, formed the major portion of the data. The other tools for the data collection were the information collected through questionnaire and classroom observation reports. The attitudes of each learner were recorded from the classroom observation reports.
3.4.1 Written responses

Written responses of learners played one of the major roles in the study. If learners involved in writing, they plan, organize, edit and revise their response (Weigle, 2002). Learners were asked to write their responses as the first step and were informed to present it orally as the second step of every task. Writing skills were encouraged as a first step for the following reasons,

- Writing skills of learners gave them a precise picture of their complete thoughts and ideas
- It organized the thoughts and ideas in an appropriate manner
- Expanded the ways of thinking to explore the topic
- As the focus on the study was on speaking and writing skills, written form preceded the oral form.
- Communicating through both the medium were cognitively demanding.

3.4.3 Verbal data

Transcriptions of oral performance of the learners could help in self-examination, self-analysis and self improvement of the learners. It could act as an inductor to increase the ability, act as an instinct to correct the mistakes and work as motivator in identifying the improvements. The verbal data of the learner were also considered as part of the data for evaluating the process of development in lateral thinking attitude and second language proficiency.
3.4.4 Oral report

The thought processes of learners were recorded to examine the progression of thinking. Thus, Learners were instructed to express their feelings at the end of each task and each session. Wallace (76-90) mentioned that

- verbal report allows insights into the process of learning
- Individual’ thought process is immediately available to conscious self-examination in verbal reports.
- Verbal reports are brilliant tools for reflection and evaluation
- Verbal reports prompt learners and teachers to access the production

3.4.2 Think aloud

Think aloud technique is one of the main techniques in eliciting verbal reports. “Thinking aloud involves externalizing the content of the mind while engaged in a particular task without inferring mental process” (Herbert Seliger, Elana Shohamy 169). In the study learners were told to say aloud the feelings, obstacles and thought process that occurred to them while performing the task. They were encouraged to point out the difficulties they encountered during the task performance. Data were generated easily on their practice on think aloud. It was used effectively to investigate learning process of learners. The data of thinking aloud were audio recorded and compared with the audio recordings of task performances. All the respondents were interviewed individually. Think aloud technique was used during the first set of task and the last set of task.
3.4.5 Questionnaire

The secondary data was collected through questionnaires for the following three purposes

- To collect personal, and socio-psychological details for the profile.
- To get feedback from the learners regarding their experience in practicing lateral thinking skills and specific lateral thinking strategies.
- To get feedback to comprehend the improvement in strategic competence and second language communication skills.

As these were the written responses of the learners, they would help evaluate the communication skills of the learners from learners’ perspective. A number of questions were included in the questionnaire to increase the level of explicitness. Likert scale (Likert) was used in the questionnaire. Scales such as Strongly agree (SA), Agree (A), Undecided (U), Disagree (D) and Strongly Disagree (SD) were provided with statements in the questionnaire. Strongly Agree was assigned the score of 5 points while strongly disagree with 1 point. To capture a complete picture of learners’ thinking ability, development in thought process and the improvement in L2 communication skills, appropriate instructions were given before circulating the questionnaire.

3.4.6 Interview

Semi-open interview (Herbert Seliger) was conducted as part of the study. Specific core questions were determined in advance from which the interviewer explored in-depth information. Respondents were given a chance to express their views and observation on their process of learning. As one of the areas of research was on
developing oral skills, interview was conducted as part of the study. Learners’ response, relevance, thinking abilities, organization of thought, language used to express the thought were taken into the account during the interviews. This particular type of interview was employed to get uniform and specific information from the large number of respondents. Observation reports were maintained by the researcher for each session.

### 3.5 Materials

The materials used for the tasks were a collection from various free sources. They included images, videos and stories. The tasks given to the learners were basically of two types: writing and speaking. Writing tasks were of descriptive, narrative and expository types. The writing tasks were encouraged in the initial stages of the study to increase the familiarity of sentence structure in various contexts. Speaking tasks were interactive type of tasks in which communicative competence was focused prominently. The topics of the tasks covered a variety of learners ranging from different aspects of life and society. All the materials taken from other sources were edited for the study, considering the educational purposes.

### 3.6 Method of teaching/training

The various techniques used in this study were a) Individual learning, b) Collaborative learning c) Questioning d) Strategic approach.

a) Individual learning: This technique was adopted for all sets of tasks. Learners were allowed to work independently. There were no restriction on the learners. They could discuss or clarify their doubts with their peers or researcher during the preparation.
b) Collaborative learning: This technique was introduced to the learners in the classroom from set-6 onwards to train in strategies also. Learners were able to think independently by using the strategies.

c) Questioning: Learners were trained in framing questions as well as answering of any type of questions through conversation. It played a major role in helping learners to broaden the thinking ability.

d) Strategic Approach: Tasks were formed as chain in which one was related to another. It demanded learners to adopt certain strategies automatically. The strategies used in the study were Lateral thinking strategies and Communication strategies.

The instructions for the tasks were given in successive steps to induce learner autonomy. It led learners to follow them without much assistance from researcher during the preparation as well as the presentation.

3.6.1 Set 1

This set consisted of two different tasks. As this was the introductory and first set of tasks, cognitive demands of the tasks were kept to a minimum level. Assistance was also given during the task. This set of tasks included

a) Planning - building structure for sentence plan

b) Recycling- this was one of the best strategy to enhance lateral thinking

c) Evaluating-judging the validity of the given tasks-enhances the ability to think individually and emphasizes the validity of the given context.

The tasks were included to improve the basic communication skills of the learners. The aim of this set was to tap thinking skills to an extent. Since chosen learners were at
tertiary level, learners would have possessed basic thinking skills already. Hence, this set formed as foundation for learners to experience their thinking process more effectively. It supported in assessing learners’ cognitive level.

**Table 3.3 Set 1**

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Planning</td>
<td>Setting provocation</td>
<td>Building structure for sentence</td>
</tr>
<tr>
<td>2.</td>
<td>Strengthening ideas</td>
<td>Focus on improvement</td>
<td>Being aware of language potential and errors</td>
</tr>
</tbody>
</table>

**3.6.2 Set 2**

This set consisted of six different tasks. The first task in this set started with creating a word web and next was to create a relationship among the provided objects which were related with each other. The objective of this set was to train learners in the ability to organize thoughts and ideas in a coherent way, so that the set as a whole would become meaningful. Learners were involved in the following activities:

a) Developing the attitude of acceptance (accepting maximum number of thoughts and ideas)

b) Seeing connectivity between objects by restructuring the information.

c) Becoming aware of active and passive vocabulary

d) Using lateral thinking skills to connect each image in the integrated whole

Thus this set of tasks was cognitively demanding and a number of strategies were needed to respond to the task. It is illustrated in the table 3.4. This helped learners to attain the next level of thinking.
Table-3.4 Set 2

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.</td>
<td>Relate unknown with the known</td>
<td>Random input</td>
<td>Vocabulary enhancement</td>
</tr>
<tr>
<td>4.</td>
<td>Fractionation</td>
<td>Creating various concepts</td>
<td>Building structure of sentences</td>
</tr>
<tr>
<td>5.</td>
<td>Escape technique</td>
<td>Creating new ideas</td>
<td>Become Aware of patterns to put new ideas</td>
</tr>
<tr>
<td>6.</td>
<td>Concept fan technique</td>
<td>Using a number of concepts</td>
<td>Using coherent devices to relate words.</td>
</tr>
<tr>
<td>7.</td>
<td>Reinforcing confidence</td>
<td>Accepting the concept “I am Right” increasing confidence</td>
<td>Verbal presentations of reasons to keep an order in the thoughts</td>
</tr>
</tbody>
</table>

3.6.3 Set – 3

This set of tasks provided a framework for concepts and ideas of learners. The connectors were particularly to create link between various integrated images. It helped learners to become aware of connective devices in language and use them in appropriate structure.

Table-3.5 Set 3

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>8.</td>
<td>Setting provocation</td>
<td>Accepting possibilities</td>
<td>Identifying suitable coherent devices to connect</td>
</tr>
<tr>
<td>9.</td>
<td>Provocation technique(Framing connections between different concepts)</td>
<td>Restructuring the complete order of provided information</td>
<td>Using coherent devices to relate different concepts</td>
</tr>
<tr>
<td>10.</td>
<td>Escape method</td>
<td>Generating new ideas</td>
<td>Framing new patterns and structures</td>
</tr>
</tbody>
</table>
3.6.4 Set 4

This set consisted of four types of tasks. The difficulty level was gradually increased. Learners were expected to give different meaning and to frame various concepts from the given video clipping.

Table-3.6 Set 4

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>11.</td>
<td>Random Input (Identifying information)</td>
<td>Create design by accepting various thinking concepts</td>
<td>Recollecting words regarding the video</td>
</tr>
<tr>
<td>12.</td>
<td>Provocation</td>
<td>Concept formation</td>
<td>Clarity in the presentation of concept (in form of narration)</td>
</tr>
<tr>
<td>13.</td>
<td>Escape provocation</td>
<td>Designing the new form</td>
<td>Framing the concept in new form</td>
</tr>
<tr>
<td>14.</td>
<td>Filament technique</td>
<td>Designing new meaning, new words and new patterns.</td>
<td>Framing an analysis of a concept or meaning in suitable pattern</td>
</tr>
</tbody>
</table>

3.6.5 Set 5

This set of tasks started stimulating the interest of the learners. This set consisted of two tasks with few similarities.

Table-3.7 Set 5

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>15.</td>
<td>Shaping ideas</td>
<td>Take up ideas</td>
<td>Presentation skill</td>
</tr>
<tr>
<td>16.</td>
<td>Strengthening ideas</td>
<td></td>
<td>Acquiring patterns in L₂ speech</td>
</tr>
</tbody>
</table>
3.6.6 Set 6

This set of task called for skills such as understanding the situation, transferring information from one form to another, understanding the conventions etc. Set -6 tasks were conversational tasks which demanded learners to provide immediate reaction for that particular situation in Situational Speaking Task (SST). Learners were expected to attain various perspectives (points of views) by practicing those tasks. Different ideas and thoughts were given importance.

Table-3.8 Set 6

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>17.</td>
<td>Tailoring ideas through provocations</td>
<td>Attitude to reach success (attitude to be succeed in completing the tasks)</td>
<td>Interpretation (performing to explore the cause and effect of the situation)</td>
</tr>
<tr>
<td>18.</td>
<td>Exploring implications and consequences</td>
<td>Put down ways for thinking requirements to form creative process</td>
<td>Performing the predictions</td>
</tr>
</tbody>
</table>

3.6.7 Set 7

Here the learners were expected to imitate the pattern of conversation in different situations. This set demanded learners to recollect the patterns to accomplish the objective.

Table 3.9 Set 7

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>19.</td>
<td>Movement method (thinking for difference)</td>
<td>Random input (Use all possible ways to attain completion)</td>
<td>Understanding appropriate patterns of conversation and Using the same pattern for various situations (SST)</td>
</tr>
</tbody>
</table>
3.6.8 Set 8

The main objective of this set was to develop the comprehensive ability concerned with language. The task was based on the life experience of learners. Learners were expected to design a new idea by considering the past events.

Table 3.10 Set 8

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>20.</td>
<td>Setting Provocation</td>
<td>Designing ideas and patterns</td>
<td>Expressing ideas and concepts in various ways in effective manner</td>
</tr>
</tbody>
</table>

3.6.9 Set 9

Two types of tasks were given focusing on improving the ability to colligate points of views. It demanded both subjective and objective views of learners. The first one demanded the subjective view whereas the second one demanded the objective way of thinking.

Table 3.11 Set 9

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>21.</td>
<td>Filament technique</td>
<td>Designing Subjective views</td>
<td>Expressing various views in appropriate context</td>
</tr>
<tr>
<td>22.</td>
<td>Escape method and random input technique</td>
<td>Designing objective views</td>
<td>Expressing ideas in suitable context and pattern</td>
</tr>
</tbody>
</table>

3.6.10 Set 10

Language complexity varied from one task to another task. This set galvanized learners mind to share and discuss their ideas and opinion about the topic. It incentivized their ideas to evince in public.
Table 3.12 Set 10

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.</td>
<td>Challenging the ordinary concepts</td>
<td>Attitude to be succeed</td>
<td>Sharing the decision and thoughts in appropriate structure/pattern in correct context</td>
</tr>
</tbody>
</table>

3.6.11 Set 11

Learners were supposed to conceptualize their long time desire. This task demanded learners to discuss various ways to attain the desire.

Table 3.13 Set 11

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>24.</td>
<td>Random input technique and stratals technique</td>
<td>Using appropriate provocation</td>
<td>Discussion-find appropriate words and pattern to use in the discussion</td>
</tr>
</tbody>
</table>

3.6.12 Set 12

Learners were trained to expand their thoughts and ideas. They were expected to put forth subordinate ideas with main ideas. It was instructed to discuss the difference between the ideas and possibilities with confidence.

Table 3.14 Set 12

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>25.</td>
<td>Random input, concept fan and setting provocations</td>
<td>Generating various points of views</td>
<td>Put forth idea in the discussion in effective way(Appropriate language to justify the point of view)</td>
</tr>
</tbody>
</table>
3.6.13 Set 13

Two tasks were given in this set. A short film was shown to the learners. Learners were supposed to observe the film carefully. In the first task learners were asked to discuss their opinions regarding the ‘end’ of the film. In the second task they were demanded to provide a suitable alternative end for the film through discussion.

Table 3.15 Set 13

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>26.</td>
<td>Challenging the present</td>
<td>Arriving at a decision through constructing ways to consider others views</td>
<td>Analyzing the object through gradual development in the discussion.</td>
</tr>
<tr>
<td>27.</td>
<td>Filament technique, Concept fan technique and escape method</td>
<td>Designing new ideas</td>
<td>Presentation of new ideas in an effective presentation</td>
</tr>
</tbody>
</table>

3.6.14 Set 14

Learners were instructed to discuss the topic from various points of views to take a decision. Learners were encouraged to put forth ideas in an organized manner.

Table 3.16 Set 14

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.</td>
<td>Setting provocations</td>
<td>Tailoring ideas and Arriving at a strong conclusion with confidence</td>
<td>Sharing/speaking predictions</td>
</tr>
</tbody>
</table>

3.6.15 Set 15

This task demanded panoramic views of learners regarding L$_2$ learning. It was a direct treatment for the learners to make them understand their present level in second language communication skill.
Table 3.17 Set 15

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>29.</td>
<td>Stratals</td>
<td>Consciously formed unconscious realizations</td>
<td>Analysis in organized way</td>
</tr>
</tbody>
</table>

3.6.16 Set 16

The main objective of this task was to develop conversational ability to solve the problem. The task was a sort of combination of maximum number of given tasks. Learners were expected to provide their views confidently throughout the discussion. Their ability of justifying own views, considering others’ views and arriving at a right solution was accounted. It was given mainly to evaluate various skills improved in the learners after the treatment.

Table 3.18 Set 16

<table>
<thead>
<tr>
<th>Task No.</th>
<th>Strategy to be developed</th>
<th>Lateral thinking skills</th>
<th>Language skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>30.</td>
<td>Shaping, tailoring and reinforcing</td>
<td>Setting provocations and arrive at several solutions</td>
<td>Comprehending various points, and arrive at a solution gradually.</td>
</tr>
<tr>
<td>31.</td>
<td>Reinforcing the self</td>
<td>Forming stratals</td>
<td>Using known patterns in appropriate context</td>
</tr>
</tbody>
</table>

The description of individual task, the task complexity and expected results along with the analyses of responses of the learners are presented in the next chapter.

3.7 Conclusion

This chapter presented a detailed process of data collection based on selected theories mentioned in previous chapters. The first part presented the research question
followed by the research methodology. Case study technique was chosen for the study because learners were observed as individuals to record the cognitive process and the progress of lateral thinking ability. The data were collected based on the learners’ age, profile, background and environment of the study. Task based approach was considered to be the best for the chosen area of study. The tools for data collection used were written responses, verbal reports (oral report, think aloud and questionnaire), and semi-open interview which helped the learners and researcher to assess the process and progress of learning. The details of each set of tasks, required strategies, language skills and lateral thinking skills for learners to complete the tasks were discussed. The next chapter presents the details of each task, collected data and the analysis of responses in the form of histograms.