

Chapter III

PLAN AND PROCEDURE OF THE STUDY

3. Introduction

This is a developmental cum experimental study. The detailed procedure followed to develop the integrated educational programme for developing affective attributes of children and then conducted on a select group of elementary school students is presented here in this chapter. It also presents certain methodological issues and limitations of the study.

To develop an integrated approach for developing affective domain along with the cognitive domain, the researcher observed the classroom processes with a view to understand the nature and the process of integration of affective attributes, if at all, in the teaching learning process. The researcher collected data about the affective characteristics that were underdeveloped / lacking / missing among the students. It helped the researcher to identify the specific areas of affective attributes that need to be nurtured among the students. The affective attributes so found to be lacking / underdeveloped that need to be nurtured were; positive attitude, interest, values, emotion and socialisation. Based on the experts' opinion, literature reviews and researcher's experiences she developed the integrated instructional affective domain programme. Unit Plans and Lesson Plans on the topics to be taught in English period were prepared chapter-wise as per the prescribed syllabus of the school. The prepared unit plans and lesson plans were given to five experts in the field of education. On experts' advises, modifications were made in the programme and it was validated. The developed programme was then implemented for a month as a pilot study. Further modification was done as per the pilot study and finally implemented on the students of grade VII to study its effectiveness.

3.1. Research Design

The aim of the present study was to develop an integrated affective domain programme, implement on students for an academic year in a natural setting with the available resources and to study its effectiveness. To meet the stated objectives of the present study, a

developmental cum experimental study is warranted. The whole process is divided into three phases;

- Phase-I: Development of an integrated instructional affective domain programme,
- Phase-II: Implementation of the developed programme on a selected group of students of grade-VII, and
- Phase-III: Finding out the effectiveness of the programme.

The details of the methodology followed for the study is presented below as per the three phases.

3.2. Phase-I: Development of an Integrated Instructional Programme to develop Affective Domain among students

The first objective of this study was to develop an integrated affective domain programme. For that it was essential to identify the most important dimensions of affective domain to be inculcated among students. The following process was followed to identify the needed dimensions that were to be developed.

3.2.1. Identification of Affective Domain Areas that need to be developed

Before developing a programme in Phase I, the researcher had to identify the areas of affective domain that need to be developed among the children. To identify the areas, the researcher had to observe the students in school, discuss with the teachers and students separately, and reviewed the related literature.

To observe their manifested behaviours, Baroda High School, ONGC (a school affiliated to Gujarat Board) was selected from Vadodara city. The school was selected on the basis of convenience as the researcher was a teacher in that school. The selected school is one of the oldest and renowned English medium private schools established in 1964. It runs two shifts (morning & afternoon) with six sections of each grade. In each division around 46 to 49 students are enrolled in each class.

In order to observe the natural behaviour of the students, the researcher took due permission from the school management and started noting the students' behaviour studying in four sections of grade VII without intimating the same to the students and their teachers. Such observations were made in a span of 20 days, in the month of January, 2016 (in the academic

year 2015-2016) and in the month of August, 2016 (in the academic year 2016-2017). The researcher used Students' Observation Checklist and maintained a daily diary book to keep records of her observations about students manifested behaviour in the school premises, playground, assembly period, recess time and in their classroom viz., respect to each other and teachers, liking and disliking demonstrated for different things in the class and school, helping nature, fellow feelings etc. Refer Appendix 2 for the details of observations. This helped the researcher to identify the needed affective domains to be developed.

The following table 3.1 shows the details of numbers of students of grade VII observed in 20 days for the present study.

Table 3.1: Details of the Observation of Students in 20 Days

Sr. No.	Grade & Section	No. of Days*	No. of Students	No. of periods observed
1	7 A	5	47	40
2	7 B	5	46	40
3	7 C	5	48	40
4	7 D	5	49	40
Total	4 Sections of Grade 7	20 Days	190 Students	160 Periods

* Note: The students were observed in the school premises, their classrooms, playground, during recess, while coming to and going out of the school and in their Assembly periods.

The detailed about the identification process is mentioned below.

3.2.1.1. Observation of Students in School Premise

The researcher observed students' behaviour while they came to and go from school. They were also observed during their Assembly period. How they come to the assembly ground, whether they maintain discipline in the absence of teachers, whether they enjoy and learn in their assembly time or it looks like a punishment was observed. They were also observed during recess time. Whether they socialize or remain in their particular group, do they share their lunch box with their friends, how they play, do they bully younger students... how the students behave in their activity period or games period etc? Do they involve students of other classes while playing games, etc?

3.2.1.2. Observation of Students' behaviour in Classroom

The researcher observed the students of grade VII when they were in their classrooms, focusing on their behaviour and the needed areas of affective development. She also noted the behaviour of teachers, their teaching techniques in their classes that promote or otherwise students' affective domains. The researcher utilized a checklist, to record the behaviour of the students, which was divided into two categories namely positive behaviour and negative behaviour as per accepted norms in school.

3.2.1.3. Group Discussion with the Students

The researcher conducted group discussions with the students of Grade VII. During the discussion, she noted their reactions, behaviour and attitude, keeping in mind the affective domain to be covered; misbehaviour, discipline, respect for teachers and towards each-other, their liking for school, their respect for parents and elders, and interest in study etc. This also helped the researcher to know about students' likings for the school and their teachers.

The researcher ensured the discussion done comprehensively in the following way:

- The researcher first built rapport with the students by creating a warm, supportive and comfortable environment to foster open and honest discussion.
- She demonstrated good and active listening skills to engage with the students by summarizing their responses and by using gestures to encourage conversation.
- She kept keen eye and paid attention to participants' body language and noted the same in the diary.
- She also showed a sense of humour to keep the discussion relaxed and encourage sharing of information.

3.2.1.4. Group Discussion with the Subject Teachers

The researcher had a group discussion with five subject teachers teaching in Grade VII of the selected school and had a talk of the challenges they face while teaching, their teaching techniques, opted solutions for any problem, etc. The discussion threw light on the present status of the students of their class in terms of development of various dimensions of affective domain.

During the discussion with the teachers following points were taken care up.

- What are the teaching strategies followed generally and specifically?

- How they manage classroom?
- Have they made any 'Peace Treaty' (classroom rules) along with the students with mutual understanding?
- Do they assess the past knowledge of the students before starting the lesson?
- What techniques are used to gauge the past knowledge about the concept to be taught?
- Are they taking any initiative to integrate affective domain along with cognitive development in teaching learning sessions?
- How are they meeting the needs of emotionally disturbed students?
- What are the tools used by them to make the students familiar with the subject contents?
- How they maintain report cards of their students?
- How they maintain records of individual students' behaviour in their diaries?

The researcher noted each point of discussion that emerged.

3.2.1.5. Referring the Literature Review

The researcher reviewed many studies and documents related to the topic. The related studies were on dimensions of affective domain and process of developing an integrated approach to develop affective domain among students.

The researcher put efforts to identify a few key ideas from the reviews in the field of affective domain (behaviour) modification of the students, teachers as role model, opportunities for the students to express and the methodological implications found in the past studies. The review helped the researcher to point out the research gaps and to understand that the planned teaching learning processes should not only be for affective domain but should be integrated with the course and ensure development of affective domain along with other domains of human development and the efforts should be taken by the teachers throughout the year in each academic year. The activities for the development of affective domain should be blended with the curriculum and encourage the students to apply the same in their life and that will make it effective.

3.2.1.6. Observing the Conversation during Parent-Teachers' Meeting

The researcher also attended the Parent-Teachers' Meeting and observed the conversation between the teacher and the parents. The researcher observed the behaviour of the parents as

to what are the concerns of parents for their wards, whether they take care of their wards' affective domains or concerned only about academics? The researcher also noted parents' reaction when teachers complain about their children. The focus was to understand the role of parents in development of students' affective domain.

3.2.1.7. Progress Report Cards of Students

The researcher had gone through the report cards of the students which provide information on students' mastery of content and skills within the strand and indicators of the recognized curriculum and inform them of their progress along a continuum of proficiency, administering formative and summative assessments. The aim was to see as to what the behavioural problems are that were reported by the teachers in the report cards.

3.2.1.8. Past Experience of the Researcher as a Teacher

The researcher is from the teachers' fraternity and is in the field of teaching for past 14 years. Her experience in the field of education facilitated her to figure out the areas needed to be developed and to select the dimensions of affective domain to be developed among the students of grade VII of the selected school. Such dimensions as thought essential by her are;

- Respect for teachers, peers, parents and elders.
- Respect for self.
- Interest in studies.
- Helping others in difficult times.
- Socialization.
- Punctual in study.
- Good habits formation.
- Value like moral and ethics.

From the above process the affective domains that need to be developed was collated and put before the experts for the finalization of the domains of affective domain that were taken to develop the programme.

The researcher from the above process arrived at the affective domains that needs to be nurtured are;

- Positive attitude

- Interest
- Values
- Emotions and
- Socialization in the students of upper primary section.

After selection of important dimensions of affective domain, the researcher started working on development of integrated affective domain programme.

3.2.2. Development of the Integrated Affective Domain Programme

To design the integrated programme, the objectives of the programme, the principles of developing the programme, Methods and approach to develop the programme, selection of audio-visual materials for the programme, and the finalization of the programme are presented below.

3.2.2.1. Objectives of the Programme

The essence of an integrated programme is to keep in mind that the instructional objectives of the subject of study is not missed in the pedagogical process and the other objectives that needs to be achieved shall also be achieved and both get proper scope for development. So, the integrated programme that was designed here takes into consideration the instructional objectives as reflected in the curriculum and the objectives that promote affective domains development. The following set of objectives were formulated and accepted as the programme objectives after it was duly examined by experts.

- The students will be able to comprehend the topics taught to them and able to analyze, compare, evaluate and draw inference.
- The students will be able to develop new vocabulary and use them in writing.
- The students will develop grammar; tense, adjectives, noun, pronoun, and use simple and complex sentences.
- The students will be able to speak fluently in English.
- The students will develop active listening skills.
- The students will develop positive attitude, interest, values, emotion, and socialization through the lessons

The integrated instructional programme developed by the researcher covers not only the affective domain but also the cognitive domain for the overall development of the students.

3.2.2.2. Principles for developing the Integrated Instructional Affective Domain Programme

The development of an integrated affective domain program was based on certain principles that were derived from past researches, developmental phases of the children, subject specific cognitive development, and school principles and objectives. The following were the principles followed by the researcher to develop the integrated affective domain program.

- The Integrated Instructional Affective Domain Program gives importance to both affective domains and cognitive domain. Emphasis was placed on the development of the affective domain together with the cognitive domain.
- The Integrated Affective Domain Programme provided extensive guidance on general methods and strategies, as well as specific guidance on each unit and lesson plan, for effectively using materials to achieve the desired tangible result.
- Teacher should be confident, cheerful, sincere, and passionate, dedicated, focused and should be appreciating students for their participation
- The structural patterns, sequence and content was planned to provide extended practice.
- The program encourages learning mainly by speaking the English language combined with positive attitudes, emotions, values, interest and socialization.
- This is an age-specific program that has been designed by selecting and developing Worksheets, videos, quizzes, gamification, and other activities by considering the age of children i.e., 12 to 14 years age group.
- The strategies and techniques used to convey the topics did not take much time, but were very interesting for the seventh graders, which made them learn faster.

3.2.2.3. Methods and Approaches of Developing the Programme

The main purpose to develop an integrated affective domain programme was to bring in a positive environment in the classroom while teaching selected subject so that the students develop English language skills and also their affective domains get nurtured and they apply the same in their life.

The researcher selected and used the following popular and effective methods and approaches of teaching-learning in the program.

a) Presentation and Practice

In this method, the researcher presented the new words for learning, using a situation. Then the researcher got the students to practice the new words by way of exercises. And then she asked the students to use the same words in communication with peers.

b) Audio-lingual Method

In this method, English language learning is all about good habit formation, prevent bad habits, mainly by error correction and recurring drilling. The teaching of the oral skills with accurate pronunciation, grammar and the ability to respond quickly and accurately is the main objective of audio-lingual method. Reading and writing skills may be taught but they are dependent on the oral skills (Richard and Rodgers, 1986).

c) Lexical method / lexical approach

The word *lexis* is used to signify both the teaching of vocabulary and areas of grammar together. Vocabulary is typically seen as individual words, whereas lexis is a somewhat broader concept and consists of words, phrases, collocations, chunks, and formulaic grammatical expressions. Instruction focused on fixed expressions that frequently occur in dialogues or statements used in the content or for framing sentences.

d) Task-based method

In Task-Based Learning, the learning is designed around a series of authentic tasks which give learners experience of using the language in ways in which it is used in the 'real world' outside the classroom. This approach is based on the problem-solving view that the learners should be given some tasks to be solved. These tasks are related to the language structures that are required to be learnt. The learners interact and communicate with each other during solving these problems. In this way, they learn the language (Richards and Rodgers, 2001). In this method, the aim is for learners to participate actively and learn communication in English from the given tasks.

e) Communicative Method or the ‘Communicative Approach’

This method focuses on authentic, meaningful communication, and not structure. Students accomplish tasks using English language. The syllabus focuses on functions (e.g., asking permission, asking directions, etc.), not grammatical/structural development (tenses, conditionals, etc.). In this method, fluency and communication are more important than

accuracy. Students were encouraged to accomplish their tasks with other students in group, while the researcher played the role of a facilitator/observer. Communicative language teaching was actually developed in the opposition of audiolingual method which focuses on drilling and memorization. Communicative language teaching focuses on developing the ability of communication in learners in real life situations. It focuses on meaning rather than accuracy (Richards and Rodgers, 2001).

3.2.2.4. Selection of Audio-Visual Materials for the Programme

Audio-visual aids are defined as "training or educational materials directed at both the senses of hearing and the sense of sight, films, recordings, photographs, etc. used in classroom instructions. The audio-visual materials were used to form clear and accurate concepts in English, make teaching and learning effective, provide variety to teaching, provide interest and inspiration, clarify the subject-matter, and to save time and energy. The selection of the audio-visual materials was done with great care. The audio-visual materials which were selected were age specific, of good quality, authentic, as per the demand of the topic.

3.2.3. Development of the Unit Plans and Lesson Plans

The researcher designed the Unit Plans and Lesson Plans for each and every chapter of English Textbook of grade VII by following the above stated objectives, principles, methods and approaches, and the procedure of having audio-visual materials. A lesson plan is a teacher's daily guide for what students need to learn, how it will be taught, and how learning will be measured. Lesson plans help teachers be more effective in the classroom by providing a detailed outline to follow each class period. A unit plan, on the other hand, covers a wider area; a unit that can include many lessons.

3.2.3.1. Development of Unit Plan

Following steps were taken to develop unit plans:

- Unit brief
- Structure of the unit
- General and specific objectives
- Entry behavior of students,
- Methods and Approaches of instruction
- Collection and development of Resources,

- Development of experiences that meet the objectives
- Evaluation of students

3.2.3.2. Development of Lesson Plan

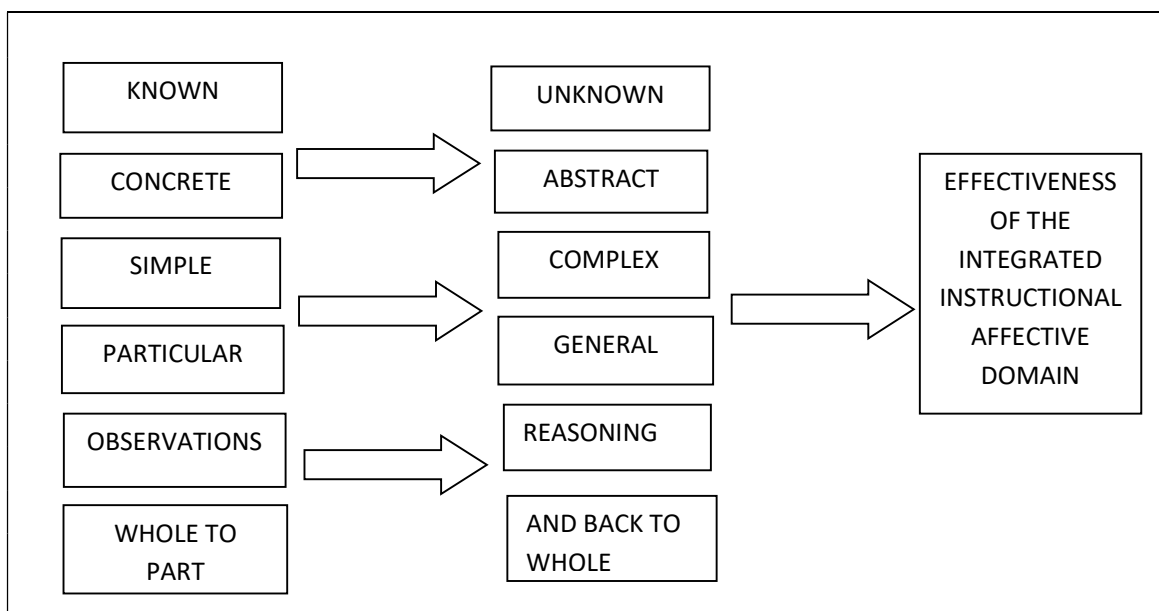
Following steps were taken to develop lesson plans.

- Entry behavior of students
- Identification of the instructional objectives
- Plan to sequence the teaching points
- Methods and Approaches of teaching
- Planning of the specific learning activities
- Plan for activity-based teaching-learning
- Plan to assess students' attainment
- Create a realistic timeline
- Plan for lesson closure.

The researcher planned to set the classroom attractive with the help of students. She used different methods, golden rules (created and finalized by students in presence of the researcher), principles etc. in order to make the lesson effective and enjoyable.

The researcher proceeded with her teaching activity keeping in view the different maxims of teaching as given in figure 3.1 below.

Figure No. 3.1: Maxims / Principle of Teaching followed in the Integrated Programme



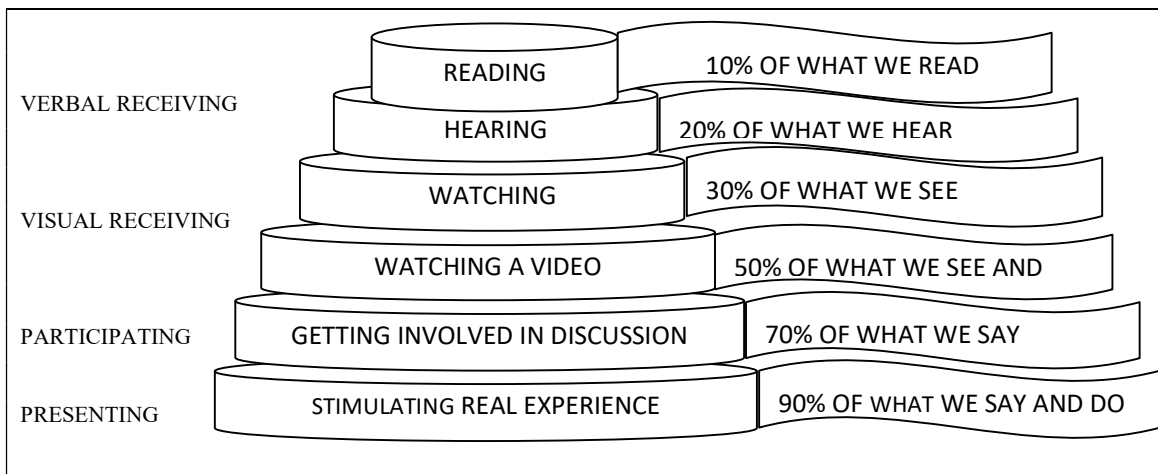
The main purpose of the above-mentioned process is to determine as to what is to be taught during the lesson, how selected dimensions of the affective domain will be integrated, and what activities should be added to fulfil the goal.

Based on the clear recommendations in Edgar Dale’s Cone of Experience, the researcher, to make the students learn the most, include the activities where the students should do the real work. That means ‘design/perform a presentation’. The researcher has incorporated the latest teaching techniques and methods needed to nurture the 21st century children and the required suggestions of the experts in the field of education in preparing and finalizing the Unit Plans and Lesson Plans for each chapter given in grade VII English text book. Edgar Dale’s Cone of Experience presented below in figure 3.2 shows the effectiveness of activities done while teaching a concept in the classroom as per Edgar Dale’s Cone of Experience.

The researcher planned appropriate learning activities and experiences to promote active participation of the students and has a potency to enhance affective domain development along with cognitive domain in English language learning for class VII students. Keeping this in mind, the activities planned are:

- Consistent with the objectives of the session;
- Varied to break monotony and promote interest;
- Consistent with the knowledge and experience of the students; and
- Balanced so that the real objectives do not get out of the focus.

Figure 3.2: Affective Domain Programme based on Edgar Dale’s Cone of Experience



3.2.3.3. Teaching Strategies used in Integrated Lesson

The researcher incorporated listening, speaking, reading and writing skills while teaching English subject. She used formal and informal, structured and unstructured, developmental, integrated methods of teaching for the holistic development of the students. She took care to create a safe and supportive environment in the class. She also used repetition and questioning technique to keep the students updated and active. The researcher planned her lessons with audio, visual and kinaesthetic activities. To create anticipation for the topic taught, the researcher added many wow factors (surprise activities) and adopted preview strategy in which the students were briefed in advance about the importance of the specific topic, what are the students going to gain and how will they be benefitted.

3.2.4. Techniques used to Develop Multi Skill under the Affective Domain Programme

To promote the affective domain of children, the researcher used different techniques. The techniques used are presented here below.

- a) Use of presentation styles appropriate to the development of all the three important domains; cognitive, psychomotor, and affective through case study, dramatization, discussion, and debate that promotes active participation of students.
- b) Present to students the relevance of the information in their text book and allow them to attach the value, e.g., giving examples of when the value was clearly right, use of case studies that are appropriate to the field and will be encountered in their educational career, giving examples of when the value improved someone's career, using real-life examples the student can relate to, insisting students meet the affective domain objectives of the curriculum.
- c) Establishment of classroom policies that support the affective domain objectives.
- d) Inclusion of affective domain objectives in assessment and grading criteria.
- e) Correct the behaviours that do not model values during simulations and role play.
- f) Assignment of student-mentors who also value the affective domain.

3.2.5. Incorporation of Innovative Ideas in Affective Domain Programme:

The biggest challenge for any teacher is capturing each student's attention and conveying ideas effectively enough to create a lasting impression. The researcher, to tackle this challenge effectively, implemented innovative ideas that made the classroom experience much more lovable for the students.

a) Creative Teaching

The researcher took help of tools to stimulate creativity. She included playful activities and few forms of visual exercises to excite young minds and capture their interest. She encouraged different ideas, gave them the freedom to explore to develop their creative ideas.

b) Audio & Video materials

The researcher incorporated audio-visual materials to supplement textbook during her sessions. These were models, filmstrips, movies, pictures, playback recordings of public lectures, info graphics or other mind mapping and brain mapping tools. She used a number of smart apps to create awesome slideshows or presentations. Such tools helped the students' imagination thrive and grow. The objective was to develop their ability to listen and understand the concepts better.

c) “Real-World” Learning

Relating and demonstrating through real-life situations make the material easy to understand and easy to learn. The researcher used this technique to spark the students' interest and get them excited and involved. The objective behind infusing real-world experiences was to make teaching moments fresh and enrich classroom learning.

d) Brainstorm

The researcher kept brainstorming sessions in her classroom. These sessions were proved to be a great way to make the students participate actively. When multiple brains focussed on one single topic, numerous ideas came out and that also involved everyone into the discussion. The researcher provided platform to the students to voice their thoughts without having to worry about right or wrong, several times after setting some ground rules. This included simple brainstorming / group brainstorming / paired brainstorming depending on the topic and time schedule.

e) Role Play

The researcher taught few topics through role-playing to make children step out of their comfort zone and develop their interpersonal skills.

3.2.6. Incorporated Latest Techniques in Teaching:

The researcher incorporated many interesting latest techniques to create interest among the students to inculcate positive attitude, values, interest, emotions and socialization while learning the concept. Following techniques were used by the researcher:

- a) Flipped Classroom: For few topics, students were given responsibility to prepare lesson and give presentation in the class. Later the given concepts were taught by the researcher.
- b) Design Thinking: The students were exposed to real life cases to be resolved through brain storming, group analysis, innovations and creative ideas.
- c) Self-Learning: The researcher acted as a facilitator and topics were given to the students for self-learning.
- d) Gamification: means learning through use of games. Typical elements of playing games were applied, e.g., point scoring, competition with others, rules of play, etc. to motivate participation, engagement and loyalty towards the learning process in the class. It is exciting because it promises to make the hard stuff in life fun.
- e) Social Media: Students get attracted to social media. The researcher used social media to explain few of the topics. E.g., Read tweets and find grammatical mistakes, etc.
- f) Free Online Learning Tools: There is an array of free learning tools on various sites. The researcher referred various sites to create wow factor in the topic, like classroom screen.com.

3.2.7. Validation of the Programme

Selected five experts (Appendix IV B) in the field of education were given the hard copy of the unit plans and lesson plans to validate the programme. As per the experts' suggestions, as given below, the researcher modified the programme.

3.2.7.1. Experts' Feedback

The experts mentioned that if teaching is carried out the way it is planned, the programme will attain its objectives of developing affective domain and English language among the students of Grade-VII. With all the audio-visual aids and activities as the plan specifies, it can accomplish what is envisaged. The plans don't make any tall claims; they are something that can be put into action. They also claimed that the planning with slight modification can be more practicable. The following are the detailed of suggestions for modifications as given by experts.

a) Experts' Suggestions for Improvement in Unit Plans:

Following modifications were suggested by the experts in the unit plans which helped the researcher to improve the quality of unit plans.

- i. The content matter of each unit may be analysed and the major teaching points may be written with its objectives and teaching techniques. Instead of simply mentioning video, radiant thinking, model reading, discussion, etc., mention what values are to be developed, when, where and how.
- ii. Mention the moral that can be drawn from each lesson unit and the values. e.g., Unit 1: courage, commitment, dedication, sacrifice, love and concern for others.... That can be developed by the extension of the moral.
- iii. They also do not spell out the entry behaviour / prior knowledge precisely.
- iv. They speak of various audio-visual aids to be deployed but do not specify what they are and their role.

b) Experts' Suggestions for Improvement in Lesson Plans:

Following modifications were suggested by the experts in the lesson plans which helped the researcher to improve the quality of her lesson plans.

- i. The lesson duration seems to be too short to accomplish the objectives. It should be at least 45 minutes.
- ii. The entry behaviour for the first lesson may be based on general background. However, in later lessons, it may be based on the portions covered in previous lessons.
- iii. The lesson plans missed the steps of practice and evaluation.

Suggestions by the experts were espoused in the programme. Only the lesson duration couldn't be exceeded as in the selected school, each period was for 30 minutes only. However, the researcher planned and used the block periods for the activities. The final copy of the detailed programme manual after modifications is presented in Appendix XII.

3.2.7.2. Teachers' Feedback

The researcher also interviewed three teachers who were invited to participate in the pilot study to give their feedback about the programme. The researcher received verbal feedback from all the three teachers. Overall, the teachers echoed experts' view that the lesson plans

are very effective, but they added that it would be burdensome for them as they need to finish up the course within stipulated time.

3.2.8. Data Collection in Phase I

The researcher collected the data in phase I during development of the Integrated Instructional Affective Domain Programme. The details are presented below.

Phase I was having two sub-phases. The first sub-phase was to identify the needed dimension and the second sub-phase was to develop the programme.

- a) To identify the needed dimensions of affective domains, the researcher took permission from the management of Baroda High School, ONGC for conducting the study while following the rules and regulations of the school. The researcher observed the classroom processes of grade VII of the selected class, observed their behaviour, and interacted with the teachers and students through focussed group discussion. She observed the parents-teachers meeting, referred related past studies and have gone through the report cards too. The researcher maintained the field notes for writing down the details of her observations. Vice Principal of the school was contacted and required information related to the timetable, books and course were collected. This process was carried out intensely for a period of about one month. The collected data was triangulated to identify the required components of affective domain.
- b) Considering the syllabus of the English subject in grade VII and curriculum, possible activities were identified. The Initial draft of the Integrated Instructional Affective Domain Programme was prepared and sent to five experts (list of Experts; Annexure IV B) for their suggestions and feedback. During the finalization of the Programme, for the purpose of Validation of the Programme, the researcher approached five experts in the field of education for their suggestions in the Unit plans and lesson plans. The experts' advises were noted and adopted as per the rules of the school. Suggestions provided by students and teachers of grade VII in academic year 2015-2016 and the experts were incorporated and it was implemented on the experimental group for a month as Pilot study.

Three teachers were invited to participate in the pilot study. Their Verbal feedbacks about the programme were noted. The researcher received verbal feedback from all the three teachers.

3.2.9. Data Analysis in Phase I

The study as per the objective of phase I was conducted and the analysis procedure of data is presented below.

Phase-I was for identification of affective domains that need to be developed and Development of an integrated instructional affective domain programme. The data were first collected by observing students in classes and in campus, review of related literature, researcher's self-experience as teacher, discussion with teachers, and discussion with students. The process yields qualitative data. To arrive at the domains, data were juxtaposed, and the domains that were identified were presented to few experts in education. After this process of qualitative analysis, the domains were identified.

After the identification of five dimensions of affective domain, development of the Integrated Affective Domain Programme started. To develop the programme, the objectives and Principles of developing the Programme, the Audio-visual materials to be used in the programme, and the methods and approaches were finalized by taking experts in the field of education. Special attention was given to maintain the development of cognitive domain too. The judgements of experts were analyzed by categorizing the data (judgements) under different headings viz., objectives, principles, methods and approaches, language, examples, audio-visuals materials' appropriateness and time taken for the lesson. The Unit plans and lesson plans were finalized on the basis of judgements of experts that were logical and accepted by them for the finalization of programme.

3.2.9.1. Pilot Study of the Developed Programme

Once the programme was ready, after taking into consideration, the suggestions from the experts, and the preliminary programme got finalized, pilot study was done to check if it can be implemented appropriately by following the school's regulations and timetable.

Pilot study was taken up for a month on the students of grade VII, section E, afternoon shift, Baroda High School, ONGC. The sample was selected on convenient sampling basis. The class VII-E consists of 49 students. The researcher herself implemented the programme for a

month. Before implementation of the programme, the affective domain scale, developed by the researcher was administered on the students. At the beginning of the semester, in the month of June, 2018, she conducted one month pilot study. During the pilot study, the researcher noted each day's experience as to how the students reacted, participated, learnt, took interests etc. in the classroom, and also noted the barriers she faced while conducting the class. After the implementation of the developed affective domain programme for a month, the researcher collected feedback of the students and teachers. Opinions and reflections, regarding the activities and overall implementation were noted. The following could be derived about the feasibility and utility of the programme.

- a) There was no problem in completing the planned units as per time allotted
- b) Students were taking keen interest in the class to learn.
- c) As observed, students were helping each other in learning.
- d) They were disciplined in classroom.
- e) As per school teachers' observation, students have started showing interest in their study and respecting teachers.
- f) In the beginning of the academic session, the researcher found it difficult to make many of the disturbing students follow her instructions but gradually when they found the English classes very interesting, they too started helping in creating conducive environment in the classroom.

The Pilot study was done successfully as it was found while discussion with students that they have started taking interest in study and helping the fellow students during English period. They expressed that they found themselves comfortable participating in the course of learning with any fear of getting insulted. The students loved the video shows which were taken up during the teaching hours.

3.3. Phase II – Implementation of the Integrated Instructional Programme

The researcher implemented the developed programme in the selected experimental group of students of grade VII. Needed data were collected by using qualitative and quantitative techniques such as observation of the participants, focused group discussions, interviews, opinion of the students and the teachers of the selected classes and the measure of affective domain development by Affective Domain scale. The collected data were analysed both qualitatively and quantitatively. The detail of implementation plan is presented here below.

3.3.1. Experimental Design

The researcher chose Quasi – Experimental Design. For experimenting the programme, the design used was Pre-test – Post-test Non-equivalent – Group Design as it is found to be best suited for the present study. According to Best and Khan (2011) “The Pre-test – Post-test non-equivalent groups design is used in the classroom experiments when experimental and control groups are such naturally assembled groups as intact classes”.

The design of the study can be presented as shown in table 3.1:-

Table 3.2: Research Design

Students' Groups	Pre-test Score	Treatment	Post-test Score	Result of the Treatment
Experimental Group (E)	E ₁	X	E ₂	$E_2 - E_1 = E_3 $
Control Group (C)	C ₁	-	C ₂	$C_2 - C_1 = C_3 $

Actual Outcome of Treatment = $|E_3 - C_3|$

Note: Experimental group – E, Control group – C, X is Intervention that is use of integrated instructional affective domain programme; (–) means no intervention – does not use integrated instructional affective domain programme.

The stated experimental design was followed in the present study. Two groups (Experimental Group and Control Group) were selected from the same school which allowed the researcher to conduct the experiment.

The selected experimental group of students were taught English subject by the researcher using integrated instructional affective domain programme and the control group of students were taught by their regular English subject teacher using the usual method of teaching-learning. The only difference between the two groups was the teaching and learning technique. At the beginning of the academic year, the students of experimental group and the control group received pre-test (E₁ and C₁). At the end of the academic year the students received the post-test which consists of the same tools (E₂ and C₂). The description of use of the Integrated Instructional programme in experimental group and the teaching of control group for one academic year is presented below in table 3.3.

Table 3.3: Teaching Learning Activities in both the Experimental and Control Groups

Experimental Group (Intervention of Developed Programme)	Control Group (Usual / Traditional Method)
SET INDUCTION	
The researcher starts the class with a minute meditation to allow the students to get prepared mentally, gave motivational talk to prepare students' emotional link with the learning; introduce the chapter asking a few questions.	The teacher introduces the chapter by asking a few basic questions needed to understand the topic.
TAKE UP THE TOPIC	
Students are encouraged to read with proper diction, pronunciation and speed. Making the students get familiar with new words and its meaning, encouraging the students to frame sentences of those words and phrases. Take down the notes. Give everyday life examples. Students are encouraged to give other examples on the related topics with discussion of pros and cons that may have impact on lives. Student-teacher interaction to involve each and every student to generate interest, promote positive attitude, value, emotions and socialisation by involving students in role-plays and other group activities (focus on affective development along with cognitive learning)	Students are encouraged to read with proper diction, pronunciation and speed. Making the students get familiar with new words and its meaning, encouraging the students to frame sentences of those words and phrases. Take down the notes. Give everyday life examples. (focus on cognitive learning)
DISCUSSION AND FEEDBACKS	
Active discussion and feedback by the teacher in the form of positive reinforcement to motivate students to enhance their efforts in the learning. (Selected dimensions of affective domains of learning are emphasized along with cognitive learning.	Teacher acknowledges students' learning (focus only on cognitive dimension of the learning.)
PRACTICE BY STUDENTS, ASSESSMENT AND CLOSURE	
Reflection by students on the topic taught, the teacher gives feedback to promote improvement, appreciates the students for their responses; and ask students how they will contribute in every field of life. Students done exercises and were given further assignments.	A summary of what was taught and students completed exercises and explanation on next assignments.

3.3.1.1. Sample Selected for the Study

To study the effectiveness of the programme, experiment was conducted by taking an experimental group and a control group from the elementary school. As stated earlier in Table-3.1, these two samples were needed for the study. Both the groups were selected from the same school i.e., Baroda High School, O.N.G.C., Baroda.

The school was selected primarily from convenient point of view. Baroda High School is one of the oldest English medium, co-educational schools of Vadodara established in the year 1964. It is a K-12 school having around 3900 students (in the academic year 2018-'19) in the

Pre-Primary, Primary, Secondary and Higher Secondary Section. It became a fully fledged school up to S.S.C in the year 1969. It is managed by Baroda Lions Club Education Trust (BLCET), follows the Gujarat State Education Board Curriculum and the secondary section is getting grants from Gujarat Government. The school is situated in about 1, 60,000 sq. ft. area of land, having a big playground and huge building along with all primary amenities like well equipped laboratory, two separate libraries for primary and secondary sections, huge Hockey and Football grounds, Skating Rink, Gymnasium, etc. The school draws students mostly from middle and higher middle class of the society. The school result is fairly good and people struggle to get their children's admission in the school. Majority of students take admission due to their interest in sports. The students of the school bagged medals in Hockey, Foot ball, Swimming, Table Tanis, Judo and Skating. Many students of Baroda High School went for national & international level competition also.

For the second and the third objectives of the study, i.e. implementation of the programme and to study the effectiveness of the programme, students of grade VII of the academic year 2018-'19 were considered as the sample.

3.3.1.2. Tools and Techniques of Data Collection used in the Study

Integrated Instructional Affective Domain Programme aimed to develop selected dimensions of affective domain in the students. It was imperative to check the level of affective domain in students before and after undergoing the implementation. Considering the same, a set of tools were developed. The researcher used the following tools and techniques to collect the required data for the study.

a) Observation of Classroom Interactions:

The researcher observed the classes of grade VII, before and after the implementation of the developed affective domain programme, She noted in the diary the affective behaviours of the students during the classroom interaction. After the class, the researcher noted the observed traits exhibited by the students during the classroom interactions.

b) Teachers' Ratings of Students' Affective Domain Development:

It intended to note the opinion of teachers, who were teaching other subjects to the selected groups of students, whether they found any change in the students' affective behaviour after the implementation of the developed Affective Domain Programme. The researcher

constructed a Rating scale for the teachers who taught various subjects in the same class of experimental group to rate the students' attitude, emotion, interest, values, and socialization to find out as to how the students have been affected. The teachers' ratings of selected affective domain development before and after the experiment were collected. (Copy of Teachers' Rating Scale Appendix VI)

c) Focussed Group Discussion:

The researcher used Focussed Group Discussion to collect qualitative data from the students of grade VII studying and another focussed group discussion for teachers teaching in this division. This technique was used to find as to how teachers and students viewed the success of the Integrated Instructional programme to change affective domains of students.

d) Check List

A check lists was developed and used at the end of the academic year after the application of the affective domain programme as a part of observation of participants for their changed behaviour in the classroom. (Copy of Check list in Appendix II B)

e) Parents' Response Scale

Responses were also collected from the parents of the students of experimental group after the implementation of the affective domain programme. Development of attitude, emotion, interest, value and socialization were rated by their parents on pre-defined criteria to 25 statements/ questions. They were requested to give their response in a five-point scale ranging from 'Very Frequently Occurs to Never Occurs'. Extra space was also provided so that the parents could write if any additional change they traced in their children (Copy of the scale in Appendix VII)

f) Affective Domain Scale:

This scale was developed to measure the level of development of attitude, interest, value, emotions and socialization in the experimental group and controlled group of students of grade VII in the selected school. Due to non-availability of a standardised scale having the selected dimensions of affective domain and is suitable for the sample under investigation; the researcher developed the affective domain scale (Appendix V) to measure the development of selected dimension of affective domain of the selected group of students.

Four principles to prepare the scale, the researcher guided the selection of the statements for the affective domain scale:

- Statements were aligned closely with the definitions of the affective domains;
- Statements for the students were developmentally appropriate for administration with grade VII students;
- The type and number of statements didn't place an undue burden on the students;
- It was made sure that the items in affective domain scale are reliable and valid.

Once the scale was drafted, the researcher considered the two points as stated below to finalize the scale.

- Comments and observations of experts in the field of education about the content validity of the scale.
- Ascertain usability of the scale after it was pilot studied.

The following steps were employed for constructing and standardizing the affective domain scale.

a) Preparing the first draft of the Scale of Affective Domain

Literature and documents on Affective Domain were consulted before the development of this test. Initially a list of 130 statement in total i.e., 26 statements for each dimension was prepared considering all dimensions of Affective Domain i.e., Attitude, Interest, Emotion, Value, and Socialization to measure the level of affective domain. While preparing this scale, due attention was given to its content, language and structure as per the level of the students. It was designed in such a way that allows and stimulates the respondents to provide the required information. The items in the scale were framed in such a manner that the respondents find it easy to comprehend and respond. An attempt was made to keep the items as precise as possible so that each item sought information about the target domain. The initial list of statements was termed as rough draft.

b) Review of the Statements

After preparing the rough draft for the affective domain scale, the statements were reviewed by seeking the expert opinion. A total of 125 statements were selected for the scale of affective domain. The selected ten experts in the field of education were consulted with a

request to judge each item. Refer Appendix III B for details of experts. The experts were explained the evaluation parameters and were asked to evaluate each item in the scale in terms of the following.

- i. Technical and logical accuracy of the item
- ii. Relevance to the objective under consideration
- iii. Language of the items as per the grade VII children language competency

To register their observations/comments, experts were asked to write it in the given column at the right margin of the item. On the basis of criticisms, comments and suggestions of each of the experts, only those items which received approval of all the experts were retained for preliminary draft (try out form). In the light of this, few items were rejected from the initial draft; few were added / altered as per experts' advice. This preliminary draft of affective domain comprised of 25 items in each dimension and the scale has a total of 125 items.

c) Item Validity and Selection of Statements/ Items for the Final Draft

The test with 125 statements was administered to a representative sample of 45 students of grade VII. The response sheet collected were scored by the researcher and tabulated. The total score of the respondent varied from '0 to 25' in each dimension of affective domain showing lowest to highest score in an affective domain.

On the basis of the scores obtained by the respondents on all the items, the 45 students' total scores were arranged in descending order. Then, top 12 respondents (i.e. top 27 percent) with highest total score on the test and the bottom 12 respondents (i.e. bottom 27 percent) with lowest total scores on the test were taken for item analysis. The validity indices for each item were computed. For finding out validity indices, biserial 'r' was computed.

d) Discrimination Power of an Item

Validity indeed of an item is also termed as its discriminative power which shows the extent to which a given item discriminates among examinees that differ sharply in the function or rating of selected dimensions of affective domain measured by the test as a whole. After finding out validity indices of each item, only those items were retained for final draft of test which were having r_{bis} equal to or greater than 0.20. Thus, on the basis of this, out of 43 items, 13 items with validity index equal to or less than 0.20 were rejected and remaining 30 items were retained.

e) Test-retest Reliability & Content Validity

The affective domain scale was evaluated by estimating its reliability and validity coefficients. The reliability of the affective domain test was established with the help of Test-retest method.

For ascertaining Test-retest reliability of affective domain scale, it was administered on an independent sample of 45 students of grade VII drawn from another section of same school. The test was re-administered on the selected sample after a gap of three weeks. The responses were scored to get two sets of score on the test. The product moment correlation method was calculated to find out the correlation between two sets of score and it was found to be 0.794 which is significant at 0.01 level of significance for $df = n - 2 = 45 - 2 = 43$.

f) Validity of the Test

The validity of the test was established in the following manner:

i. Item Validity

The test can be considered to be valid enough in terms of item validity because only those statements were retained in the final form of the test which were having validity indices equal to or greater than 0.20 (Statements with high discriminative power).

ii. Content Validity

The content validity of the test was established by carrying out critical discussions with the experts at the time of development of preliminary draft of the affective domain scale. Also, the investigator consulted the relevant documents and literature. The experts opined that the statements in the scale are adequate and relevant to measure the affective dimensions of grade VII students. This indicates the high content validity of the test.

Thus, we can conclude that the affective domain scale is reliable and valid. The evaluated test is then ready for collection of data and further use. The final test is consisted of 25 items in each of the selected dimension of affective domain. Each of the items in the test was given in the five-point scale ranging from 'Strongly Agree (1)' to 'Strongly Disagree (5)'. Thus the total score of the test ranges from '0' to '25'. The maximum time allowed to complete the test was 45 minutes.

3.3.2. Procedure of Implementation of the Integrated Instructional Affective Domain Programme

The developed programme was implemented as per the following points.

- ✓ Permission for the actual implementation of the Integrated Instructional Affective Domain Programme was taken in May, 2018 from the Baroda High School, ONGC, Management.
- ✓ Timetable and academic calendar were collected from the Vice Principal of the selected school to prepare the schedule of implementation of the developed programme.
- ✓ Two-group non-randomized experimental design was selected to implement the programme.
- ✓ The developed Integrated Instructional Affective Domain Programme was implemented for the period of nine months in the academic year 2018-'19.
- ✓ The researcher implemented the developed integrated instructional affective domain programme on the experimental group (VII E, afternoon shift) in the selected school for one academic year (nine months) i.e., 2018-'19. In the same school, another group i.e., another division of the same class (VII F, afternoon shift) was treated as control group.
- ✓ To gauge the level of development of selected dimensions of Affective Domain, the researcher administered the affective domain scale twice on the students i.e., before and after the application of the Integrated Instructional Affective Domain Programme.
- ✓ The developed affective domain scale for Pre-test was administered on the experimental group of students in the month of July, 2018.
- ✓ The researcher taught English subject following the designed lesson plan to expose students to selected dimensions of affective domain along with their cognitive development.
- ✓ She had recorded in detail the students' reaction, behavioural changes, etc. during the phase of application of the programme.
- ✓ To evaluate the development of selected dimensions of affective domain, teachers' response and parents' responses were collected.
- ✓ Students' responses were also collected through a group discussion after the implementation of the programme.

3.3.3. Data Collection during Implementation of the Affective Domain Programme

In phase II, the researcher applied the developed integrated instructional programme on affective domain on the experimental group students. Data collection details by the researcher in phase II are presented below.

For nine months (one month of pilot study and eight months of the final implementation of the programme) the researcher followed developed programme to teach English subject. Special care was taken to record the observation of the students' affective behaviour in the class. She maintained her observation diary on day-to-day basis. During the implementation process, whenever the group activities were conducted, photography and field diary was used to record the observations.

3.4. Phase III – Effectiveness of the Integrated Instructional Affective Domain Programme

The integrated affective domain programme was designed to develop selected dimensions of affective domain along with cognitive development in the students. The effectiveness of the developed programme was judged by collecting the pertinent and ample evidences in the process of trying out of the programme on the selected group of students. At the end of the academic year, marks scored in their English subject were also compared. Parents' feedback, Teachers' feedback and group discussion with students were also done to get comprehensive view about the programme. Checklist was maintained and researcher observed and noted the changes in the students of experimental group while undergoing the treatment over a period of time.

The effectiveness of the Integrated Instructional Affective Domain Programme was studied by administering the affective domain scale on the students taken as sample for the experimental group and the controlled group, before and after implementation of the programme. The scores obtained by Experimental group students and control group students in Affective domain scale was analyzed using the Mann-Whitney U-test for all the five domains separately and also the overall score in Affective domain. It was also studied if the programme has compromised on the academic performance of the selected groups of students. For those marks obtained by the students of experimental and control groups in their English subject throughout the year in the form of formative and summative assessments

were analyzed using the Mann-Whitney U-test. The data were processed with SPSS software (Statistical Package for Social Sciences) and analysis was done. The five affective domains are: Attitude, Emotion, Interest, Value, and Socialization. As the Experimental group and Control group were selected by non-random methods and the experiment conducted in a natural setting without disturbing the class for having parity between the two groups, the same was done at the stage of data analysis by reducing the Experimental group and control group to 30 each on the basis of their pre-test scores. So, finally 30 students of experimental group and 30 students of control group, whose overall affective scores were almost same at the pre-test were further selected to be compared with the scores of their post-test scores by Mann Whitney U-test.

3.4.1. Data Collection in Phase III

The effectiveness of the Integrated Instructional Affective Domain Programme was noticed in terms of the difference in the mean scores obtained by the students of experimental group and control group during pre-test and post-test tools. The effectiveness of the programme was also evaluated by collecting the significant and sufficient evidences in the process of trying out of the programme on experimental group.

After implementation of the programme for nine months in the academic year 2018-'19, the researcher collected the data as the experiment progress. Before the experiment and after the experiment, data regarding the affective domain were collected from both the groups by using the scale of affective domain. During the experiment, data were collected on daily basis about each student's behaviour in the class of experimental group by using observation note by the researcher. She conducted focussed group discussion with the four teachers of the class of experimental group to find out their reactions about students' development. The class teacher and the subject teachers of experimental group were also asked to rate the development of selected dimensions of affective domain in 5 point scale. Focused group discussion was also conducted with the students of experimental group to collect data about their suggestions and reaction to the programme. At the end of the experiment, 27 parents who could be approached were asked to give their observations about their wards' behavioural changes in a scale developed to collect the same. Marks scored in English subject by the experimental group and control group, in their Annual Examination in the academic year 2018-'19, were compared.

3.4.2. Data Analysis in Phase III

Phase-III was about the effectiveness of the programme. Data collected regarding the affective domain scale was analysed by using the pre-test and post-test scores of sample students of experimental group and control group by using Mann Whitney “U” test. The data regarding Experimental & Control group students’ achievement in English subject in their Annual Examination (Appendix XI A & B) was also analysed for the same technique of Mann Whitney “U” test. About the effectiveness of the programme, certain other data were also collected viz., students’ reaction, teachers’ opinion, daily observation note of the researcher, and parents’ observations about their wards’ behaviour. These data were analysed qualitatively by categorizing the data to judge the effectiveness of the programme.

3.5. Conclusion

The proposed research intended to develop selected dimensions of affective domain in the students of upper primary school students. The observation of students, discussion with teachers and students, and preliminary literature review had identified several key areas which helped the researcher to identify and select the dimensions of affective domain to be developed in students. An integrated instructional affective domain programme was developed to nurture the specific areas of affective attributes in the selected group of students. The programme was implemented on the students after getting validated by the experts. After a month of pilot study, a few more modification was done for the final application. The research used a mixed methods approach, combining both quantitative and qualitative techniques for collection of data in three phases.