

CHAPTER-III

PLAN & PROCEDURE OF THE STUDY

3.1 Introduction

The methodology goes beyond the methods that a researcher aims to make use of to gather data. The methodology answers questions such as, how data was generated and, how it was analyzed. It may be required to discuss the concepts and theories which inspire the methods. The methodology explains the basis for the application of specific actions employed to recognize, select, and analyze information to understand the research problem, thereby, allowing the reader to significantly appraise a study's overall validity and reliability.

The study has been done with the objective of inculcation of values in children through teaching of Social Science by integrating a module developed for teachers by the researcher. This chapter has been divided into two segments. Segment I describes in detail the systematisation of the module in which it includes the process of choosing the course content, identifying of values that incorporate well with the topics/sub-topics of the chapter and the selection of many activities vis-a-vis the values that were identified in the chapters. Segment II describes the blue print of the research. It explains in detail the population, sampling technique, description of the tools, method of data collection and techniques used for analysing the data.

3.2 Systematisation of the Module

The module was developed for the teachers on the basis of planned and arranged system. The content for the module was based from the chapters of second semester of the academic year of 2013-14 of the Social Science text book of class IX. There were no pre-determined values planned, only values that naturally emerged from the selected chapters of the text book were identified. Only those sub-topic/s that had the full feasibility to easily integrate with the identified values, were selected from the chapters.

To integrate the identified values with the sub-topic/s, reflective/interactive questions, stories, questions from the stories and activities were prepared and selected. While doing so, the age criteria, entry behaviour of the students, and time constraint of the subject period were kept in mind. Preparing of questions, selection of stories and activities were deliberately kept short and simple, yet they were challenging enough to make the students think beyond their basic understanding of values. The stories selected were contextualized to Indian context.

An integrated approach was used to develop the module. Lecture and discussion methods were incorporated in the module for the teacher to use.

3.2.1 Segment I

3.2.1.1. Development of the Module

This segment discusses in details the various steps taken by the researcher to develop the module for the teachers. 1) Selection of chapters from Social Science text book of class IX. 2) Content analysis of the chapters of the Social Science text book and value identification. 3) Selection of suitable subtopics from the main chapters that were value laden. 4) Development and selection of various stories and activities

3.2.1.2 Selection of Chapters from the Social Science Text Book

The Social Science text book of class IX was published by Gujarat State Board of School Textbooks for Gujarat State Board schools. The text book had a total of 19 chapters, which were divided into three units, History, Civics and Geography respectively. To develop a module to teach Social Science along with values integrated in the text book, the researcher selected nine chapters of the second semester syllabus of the academic year 2013-14 (December). The second semester syllabus included two chapters from History, three chapters from Civics and four chapters from Geography. Details of what constituted in the nine chapters of the text book, are mentioned below:

History (Unit I)

Chapter 6: Post Independent India -1: This chapter focuses on the immediate problems that India faced post independence. There were two major problems, one, the framing of the Indian Constitution and two, to unite the 550 Indian princely states and British provinces under the union of India. Chapter 6 discusses at length the mammoth task of how Sardar Vallabhbhai Patel under his competent leadership convinced the major Kings and Nawabs to accede with the Union of India. Those few, who opposed, were given a befitting reply militarily. The objective to unite a big divided nation into one large union system was achieved by Sardar Patel.

Chapter 7: Post Independent India -2: In this chapter 'Regionalism' is discussed in detail. Here it is highlighted, that how people living in one particular geographical region, over a period of time develops a common language, culture, tradition, beliefs etc. They naturally tend to extend an emotional affiliation towards one another, the place and its related aspects. Such geographical area can be called a state or part of a state or can cover specific portion of neighbouring states.

Chapter 7 further elaborates that how some regions or states may start to feel isolated from the main stream government; they get a feeling of being discriminated or not getting full justice from the government towards their own state, their people. This feeling later builds into regionalism or provincialism.

Civics (Unit II)

Chapter 10: Organs of Government: In this chapter, an understanding to how the government functions is explained in detail. It depicts the three key organs of the government; Executive, Legislature and Judiciary at the union level and the state level. Chapter 10 elaborates on the constituents, qualifications, importance, power, procedures and functions of the Executive and the Legislature of union and state government and how their powers and functions may differ, yet relation between them is intimate and they are mutually dependent.

Chapter 11: Judiciary in India: This chapter elicits the importance of Judiciary, what are the different levels of courts, and how it has been given a separate and special status than the Executive and Legislature. Chapter 11 discusses in detail the Supreme Court, The High Court and the Subordinate Courts. It highlights the various functions, qualifications, procedures, rules of appointment of judges, their removal, independence of Judiciary, Lok Adalats and public Interest Litigations.

Chapter 12: Indian Democracy: In this chapter Democracy is the centre point, It talks about the many important factors that are responsible for sustaining democracy. The importance of Universal Adult Franchise, Public Opinion, Media, Elections, and Political Parties are discussed at length. Chapter 12 spotlights the importance of equality of people for efficient functioning of democracy and the importance of people being politically aware of their rights, duties and keeping themselves updated on the latest happenings in and around the country.

Geography (Unit III)

Chapter 16: Drainage System: This chapter gives an in-depth understanding of the river pattern of Indian region. Chapter 16 details the drainage system of India. It discusses the many rivers of the Himalayan and Peninsular region, how they are divided into many drainage system and river basins and how they unite at one large water mass such as a lake or an ocean. It also focuses on the importance of rivers to human civilizations and pollution of rivers posing danger to the human civilization.

Chapter 17: Natural Vegetation: In this chapter forest and its varieties of vegetation are discussed. The importance of forest is emphasised and the various level of hierarchy formed in an ecosystem, consisting of organisms sharing the same function in the food chain are discussed at length. Chapter 17 further states the interdependence of the various trophic levels and how human intervention can bring an imbalance to the structure of the trophic levels or the ecosystem.

Chapter 18: Wild Life: This chapter deals in the rich cultural heritage of wild life in India. Due to the different geographical conditions, India is rich in wild life which is an important

natural resource. Chapter 18 describes the many species of animals and birds all over India. It also looks into the challenge of the endangered species. Many steps are taken by the government to enrich the forest resources and rehabilitate the wild animals.

Chapter 19: Population: In this chapter the strengths and limitation of population of country is discussed. It specially talks about India's over population and how difficult it becomes to manage an overpopulated nation because available resources for maintenance are limited. Over-population leads to problems such as poverty, illiteracy, mal-nutrition, scarcity of food, medicine and fatal diseases. Chapter 19 also discusses the factors affecting the size of the population, population composition, under which sex-ratio has been taken seriously as in India the se-ratio has always been in favour of males.

3.2.1.3 Content Analysis of Chapters and Value Identification

A thorough content analysis of the nine chapters from the second semester of the academic year 2013-14 (December) of Social Science text book of class IX was done.

While doing the content analysis, the researcher carefully kept in mind and took detail note of the values that were prominently emerging from the chapters. It was observed that values like Peace, Equality, Patriotism, Unity and Freedom were frequently occurring in all the selected nine chapters, hence, these values were considered appropriate for integration with the nine chapters of Social Science text book.

3.2.1.4 Selection of suitable Sub-topics to Integrate the Identified Values

Selection of relevant sub topic/s that had the full scope of integration with the identified values from the text book, i.e. Peace, Equality, Patriotism, Unity and Freedom from each of the nine

chapters was done. The sub-topics in the chapters were read meticulously to find out which of the identified values strongly surfaced from them and could be well integrated.

A synoptic view of the chapters, subtopic/s and values identified and integrated with the subtopic/s are given below in the form of a table.

TABLE 3.1: NAME OF THE CHAPTERS, SUBTOPICS AND VALUES IDENTIFIED

Chapter. No.	Name of the Chapter	Sub-topic	Values Identified
6	Post Independence India – 1	Integration of the Princely States and Formation and reorganization of Indian States	Unity and Equality
7	Post Independence India – 2	Regionalism	Equality and Peace
10	Organs of Government	Legislature	Unity and Patriotism
11	Judiciary in India	Independence of Judiciary	Freedom
12	Indian Democracy	Agencies of Public Opinion	Freedom
16	Drainage System	Rivers: Life Line of Human Civilization	Equality
17	Natural Vegetation	Natural Vegetation Region	Peace
18	Wild Life	Wild Life in Danger	Freedom
19	Population	Sex-ratio	Equality

3.2.1.5 Selection of various Stories and Activities

Stories and activities are a good way to keep children engaged, interested and focused. With the help of stories and activities the learning outcomes are more effective and long-lasting. In activity based learning, learners willingly with eagerness internalize and implement concepts easily. Based on the five values that were identified i.e. Peace, Equality, Patriotism, Unity and Freedom from the selected nine chapters of the Social Science text book, the researchers made a list of several stories and activities that were significant and relevant to the identified values. The stories were selected from Panchtantra, Jataka tales, old children fables, and other internet sources. The activities that were selected were short, crisp and yet interesting for the students. Activities like, debate, quiz, group discussions, mock sessions, skits, poster making, slogan writing, story writing or storytelling, poem writing, role play and many more such activities were listed out.

3.2.1.5.1 List of Selected Stories

A brief account of the stories and activities used for value inculcation with Social Science topics have been mentioned below.

United we stand Divided we fall

This story is about an old man who had four sons but his sons were always at logger heads with each other. He wanted to teach them a lesson of unity and so with the help of a bundle of sticks he teaches them the importance of being united.

We all are Equal

This story talks about a little boy who is curious to understand the essence of equality, a term which he picks up at school from his teacher. His father using fruits as an example teaches his son the most valuable lesson on equality.

Subtopic – Formation and reorganisation of Indian States (**chapter 6**)

Value integrated – Unity and Equality

‘I am just as you’

This story is about a young boy who is a new student in the class. He wants to make friends in the class and be a part of them but he is treated badly and is ignored. Out of anger and frustration, his one statement “I am just the same as you”, makes other students realise their mistake of being unfair with him.

Two Brother Kings

This story talks about a King who divided his kingdom into two halves to avoid conflict between the two sons over the throne. In spite of the division both the kingdoms had strain relations with each other. Their bitter relations changed when they received news of an invasion from a powerful king. They realised the importance of peaceful co-existence.

Subtopic – Regionalism (**chapter 7**)

Value integrated – Equality and Peace

Lion and two Bulls

This story in a lucid manner focuses on the strong foundation of unity. A bound that has a weak base can be very easily broken by enemies as in the case of two bulls who were together always were killed by a lion who broke their unity.

Service to Nation

This story talks about the true essence of patriotism. It is a story of a young man who got qualified as a doctor in America. He had an opportunity to settle in America and live a lavish life. But he chose to come back to India and serve his people. While serving his people he becomes a martyr.

Sub-topic – Legislature (**chapter 10**)

Value Integrated – Unity and Patriotism

Bird in a Golden Cage

This is a story of a princess who loved the company of birds. One day she fell in love with a beautiful bird and her sweet chirping, she cages the bird in a golden cage so that she could hear her melodious chirp every morning. But soon she realizes her mistake when after few weeks the bird's health condition deteriorates. The princess thus understands the importance of freedom and sets the bird free.

Sub-topic – Independence of Judiciary (**Chapter 11**)

Value Integrated – Freedom

King and his Autocracy

In this story, a King who wanted to keep his kingdom free from any kind of revolt against him, kept a tight vigilance over his people. He did not allow his people any kind of freedom, which led to stagnation of the kingdom. Upon realising his mistake, he removed all the barriers and gave his subjects their fundamental right of freedom and expression.

Sub-topic – Agencies of Public Opinion (**Chapter 12**)

Value Integrated – Freedom

Black or White

This story is about colour discrimination. Two friends apply for the same job; both girls are smart and intelligent and are suitable for the job but Seema definitely had an edge over her friend Tanya in terms of qualification. Yet her friend Tanya gets the job because Tanya has her white skin as an advantage over Seema.

Sub-topic – Rivers: lifeline of Human Civilization (**Chapter 16**)

Value Integrated - Equality

Crow and an Owl

This story is about a crow who with his folly disturbed the peace ties between his clan the owls. In a jungle all the birds were fed-up with their present bird king the Garuda and so decided to elect a new bird king. They decided to crown an owl as their new king, hearing this news, the crow insulted the owl by talking all ill about him and asking the birds to rethink on their decision. The birds got influenced by the words of the crow and postponed the coronation ceremony. Ever then this created an animosity between the crows and the owls.

Sub-topic – Natural Vegetation Region (**Chapter 17**)

Value Integrated - Peace

Where there is Fear there is no Freedom

Fear brings many restraints in our action. This story is in line with a teacher who created so much fear among the students that the students were afraid to speak their mind in front of her. One incidence occurred between the teacher and a student that put the teacher in an embarrassing situation. Since then she realised the importance of freedom. The teacher also understood how important it is to create a friendly and an approachable environment for freedom to thrive.

Sub-topic – Wild life in danger (Chapter 18)

Value Integrated - Freedom

All Deserve Respect

In this story a junior student teaches his seniors a lesson on treating all with respect. When the senior students talk rudely and with disrespect with the junior student, he revolts back and makes them realise how it feels when others become rude or disrespectful.

Sub-topic – Sex Ratio (Chapter 19)

Value Integrated – Equality

3.2.1.5.2 List of Selected Activities

At the end of each session, short activities were conducted to embed the understanding of the values that were being taught to students. An assortment of activities like forming groups for debate, doing mock parliament session, group discussions, value related games, poster making, slogan making, poem or story making and quiz were done.

Activity 1- Quiz - Team activity

In this activity three teams of students are formed and are asked multiple choice questions as directed in the module, based on the value that was integrated with the sub-topic of the chapter.

Sub-topic - Integration of Princely States and Formation and reorganization of Indian states
(Chapter 6)

Value Integrated –Unity

Time - 5 minutes

Activity 2 – Debate

In this activity two groups of students are formed, one group argues against and one group argues for the motion. The teacher sums up the debate.

Topic – Can complete Equality be achieved?

Sub-topic – Integration of Princely States and Formation and reorganization of Indian states
(Chapter 6)

Value Integrated – Equality

Time - 5 minutes

Activity 3 – Listicles, acts of Discrimination

In this activity students are asked to enlist as many acts of discrimination they know. Then they are instructed to share the list and discuss in the class.

Sub-topic – Regionalism (Chapter 7)

Value Integrated – Equality

Time – 5 minutes

Activity 4- Addressing Bullying Behaviours

In this activity, the students discuss what is bullying, they share their experiences of whether they were bullied or they bullied someone. The teacher joins the discussion and discusses the various types of verbal and non-verbal bullying. With the help of an activity (as instructed in the module) the students are made to realise the deep negative impact of bullying. They are then asked to suggest something positive that everyone could do about bullying.

Sub-topic – Regionalism (Chapter 7)

Value Integrated – Peace

Time - 8 minutes.

Activity 5 – Mock Parliament

In this activity students are divided into two groups. One group is the ruling party and the second group is the opposition party, they are asked to discuss a Bill on reservation. This activity is done twice, once with chaos and commotion and the other with unity, respect and decorum.

Sub-topic – Legislature (chapter 10)

Value Integrated - Unity

Time – 8 minutes

Activity 6 - Listicles, acts of Patriotism

In this activity, the students are asked to list down any one act of patriotism and share with the class

Sub-topic – Legislature (Chapter 10)

Value Integrated - Patriotism

Time – 5 minutes

Activity 7 – Dare to say Truth

In this activity the students are shown a picture of injustice taking place. The students are then instructed to give their comment but there is a restriction on giving the correct comment. The

restriction is then removed and the students are instructed to openly give their comments. The students are asked to discuss their experience.

Sub-topic – Independence of Judiciary (Chapter 11)

Value Integrated – Freedom

Time - 5 minutes

Activity 8 – Slogan Making

In this activity, the students are asked to make slogans on Freedom some examples are given to them, as mentioned in the module. E.g. Freedom should include the freedom to make mistakes. After making the slogans, students make a simple chart and display in the class.

Sub-topic – Agencies of Public Opinion (**Chapter 12**)

Value Integrated – Freedom

Time – 8 minutes

Activity 9 – ‘Did you know’ Discussion, on Anti-Apartheid

In this activity students are asked to find about apartheid movement and get information on the person who brought an end to the inequality faced by the Africans in America and South Africa. The teacher then discusses with the students and sums it up by highlighting the importance of Equality.

Sub-topic – Rivers: lifelines of Human Civilisation (**Chapter 16**)

Value Integrated – Equality

Time – 5 minutes

Activity 10 – Group Discussion

In this activity, the teacher divides the class into two groups and each group discusses a topic on peace and conflict (as given in the module) and gives a summation. Each group gets 2.5 minutes to make their point.

Sub-topic – Natural Vegetation Regions (**Chapter 17**)

Value Integrated – Peace

Time – 5 minutes

Activity 11 – Symbols of Freedom

Instructions – Form 4 to 5 groups of students, each group should have 5 to 6 students only. Ask each group to think of all possible symbols of freedom, these symbols can be from anywhere. Ask them to also list some objects that are used in their own country as symbols of freedom. Make them write a small paragraph explaining what symbolizes freedom to them. Ask the students to illustrate their compositions and then post them together on a bulletin board with the title “*What Freedom Looks Like*”.

Sub-topic – Wild life in Danger (**Chapter 18**)

Value Integrated – Freedom

Time – 5 minutes

Activity 12 – Poem Recitation

In this activity, the teacher asks all the students to write a poem and recite a poem that is mentioned in the module. The teacher then motivates students to write such more poems.

Sub-topic – Sex-Ratio (**Chapter 19**)

Value Integrated – Equality

Time – 5 minutes

Table (3.2) A Synoptic View of Stories and Activities selected for Value Inculcation

Chapter No.	Name of the Chapter	Sub-topic	Value Identified	Stories Selected	Activity Selected
6	Post Independence India – 1	Integration of Princely States and Formation and Re-Organisation of Indian States	Unity and Equality	United we Stand, Divided we Fall and We are all Equal	Quiz and Debate
7	Post Independence India – 2	Regionalism	Equality and Peace	I am Just as You and Two Brother Kings	Listicles, acts of Discrimination and Addressing Bulling Behaviours
10	Organs of Government	Legislature	Unity and Patriotism	Lion and Two Bulls and Service to the Nation	Mock Parliament Session and Listicles, acts of Patriotism
11	Judiciary in India	Independence of Judiciary	Freedom	Bird in Golden Cage	Dare to say Truth
12	Indian Democracy	Agencies of Public Opinion	Freedom	King and his Atrocities	Slogan making for bulletin Board
16	Drainage System	Rivers: Lifeline of Human Civilisation	Equality	Black or White	‘Did you know’ Discussion, on Anti-Apartheid Information gathering
17	Natural Vegetation	Natural Vegetation Region	Peace	Crow and an owl	Group Discussion
18	Wild Life	Wild life in Danger	Freedom	Where there is fear there is no Freedom	Symbol of Freedom
19	Population	Sex-Ratio	Equality	All Deserve Respect	Writing and Reciting a poem

3.2.1.6 Outline of the Module

The Module was developed by the researcher for the teachers of Social Science to inculcate values in students of class IX through teaching of Social Science. Following was the way in which the module was designed.

Introduction

The module begins with the Introduction page. Under this heading, in the first paragraph of the introduction, very briefly it is stated, how the world today has become acquisitive and self-centered and that only value laden life can bring prosperity and happiness in an individual's life and in the society as well.

The second paragraph discusses the importance of value oriented education, teachers and the significant role they play in imparting values in children. In the third paragraph the importance of the respective subject is discussed and how it has the scope of integrating values that can give a new dimension to the subject.

The Last paragraph of the introduction gives an overview of the module; it mentions the number of chapters it consists of, the values identified for the subject, various stories that would be narrated and various activities such as, debates, group discussions, role-plays, skits, poster making, games, quizzes etc. would be conducted at the end of every chapter.

Chapter Number and Chapter Name

Under this heading, chapter number and chapter name is mentioned. A short introduction to the chapter is given. A brief over-view of the identified value/s, subtopic/s of the chapter and how with the help of activities the session will be made meaningful and interactive is stated.

General Objectives

Under this heading, 'General Objectives' have been stated, which the students are expected to achieve by the end of the chapter. In 'General Objectives' the students would get a broad-spectrum of understanding of the value that would be discussed in the chapter.

The student will understand the significance of the particular value in an individual's life and in the society. The student will also understand the difference between the value's positive and negative aspect.

Instructional Objectives

Under this heading, ‘Instructional Objectives’ have been stated, which the students are expected to achieve by the end of the chapter. ‘Instructional Objectives’ are more specific, they give detailed understanding in behavioural forms of the value that would be discussed in the chapter. The student will be able to give the meaning, definition and characteristics of the value, also, will be able to give precise examples, narrate stories in regard to that particular value.

Chapter Overview / Theme

Under this heading, a summary of the chapter is written. In one or two paragraphs the gist of the chapter is highlighted.

Lesson Content Integrated with Values

Under this heading, the values inherent in the sub-topic/s of the chapters have been identified. A brief description of the sub-topic/s is given, how the value is highlighted and how the value has been integrated with the sub-topic/s has been explained briefly.

Value/s Identified

Under this heading, the value identified in the chapter is mentioned.

Interactive Session

Under this heading, the teacher would create a background to an interactive session by asking three to four reflective questions based on the identified value which she intends to discuss and integrate with the sub-topic. The objective of interactive session is to have discussion on the identified value/s. The students are prodded to discover the value on their own from the sub-topic and come out with their own understanding of the value. In the process of the discussion, students themselves discover the many facets of the ‘value’ that was being discussed.

The teacher with the help of the reflective questions only facilitates the students to discuss and arrive to some understanding of the value.

The reflective questions are well planned that will compel the students to think, to connect to their own lives, to their surroundings and thus they will gain a deeper understanding of the value. They will discover the meaning, definition and characteristics of the value. The value discussions are based on the five identified values integrated with the various sub- topics of the Social Science subject. The five values taken for the study were Equality, Peace, Patriotism, Unity and Freedom.

After the Interactive Session, the teacher from the modules gives the precise meaning, definition and characteristics of the particular ‘value’ that was discussed.

Meaning

Under this heading, the meaning of the identified ‘value’ is given

Definition

Under this heading, the definition of the identified ‘value’ is given.

Characteristics

Under this heading, the major characteristics of the identified ‘value’ are described.

Story Telling

Under this heading, the teacher tells a short story to the students. The stories are simple yet relevant. The story is well connected to the value/s that was being discussed in the class. The stories are narrated while the values are being taught and integrated with the subtopic/s of the chapters. These stories would reiterate the understanding of the concept and percept of the values of peace, equality, unity, freedom and patriotism. Selection of appropriate and relevant stories was done that would strongly relate to the selected value.

Discussion

Under this heading, the teacher asks questions to the students related to the story and connecting the questions to the related value/s. This is to create an interactive environment, and to reiterate the significance of the value that was being discussed in the class. This makes the students think in various other ways to develop a value in them.

Unit End Activity

Under this heading, short and simple activity is conducted that would give the children to implement what they have learnt and will strengthen their understanding of the value even better. The activity is carefully selected keeping in mind the learning potential of the value from the activity, the practicality of the activity and the enjoyable aspect of the activity.

Integration approach was used to teach the topics of Social Science and values together. In order to make the theoretical concepts of values more profound, practical understanding was equally important therefore, different types of activities were developed and selected for the inculcation of values. The developed and selected activities included quiz, slogan making, poster making, debates, mock sessions, and group discussions.

3.2.1.6.1 Validation of the Module

Validation of module was done by three experts (appendix IX), one expert from the Department of Education, Faculty of Education & Psychology, The Maharaja Sayajirao University of Baroda, Vadodara, and two experts were Social Science teachers, one from Convent of Jesus and Mary, Vadodara and second from Vidyani Vidyalaya. Modifications were made with respect to content and language appropriateness and finally the Social Science Module was developed and was ready for implementation.

3.3 Segment II:

3.3.1 Research Methodology

Quasi-experimental design was followed for the study. The Pre-test-Post-test Non-Equivalent-Control Group Design was followed in this research. The design of the study is shown graphically which is as follows:

Pre-test Post-test Groups

Experimental Group	O ₁	X	O ₂
Control Group	O ₃	C	O ₄

O₁ & O₃ = Pre-test

O₂ C O₄ = Post-test

X = Treatment

C = No Treatment

3.3.2 Population: All the students of class IX Secondary Schools of Gujarat affiliated to Gujarat Secondary and Higher Secondary Education Board of the year 2013-14 constituted as the population for the present study.

3.3.3 Sample: The sample was selected through convenience sampling technique. Two schools of Baroda city were selected for the experiment. First school was Convent of Jesus and Mary used as control group and the second school, Navrachana Vidyani Vidyalaya was used as the experimental group. All the students of class IX of both the schools were considered as sample. The sample also consisted of the Social Science teacher of the experimental group.

There were 53 students in control group and 38 students in experimental group. An achievement test was administered to both the control and experimental group as a pre test. One to one matching was done taking into account the equivalent scores obtained by students of both groups in the achievement test. The mean score of the control and experimental group was found to be 7.9 and 8.2 respectively. Therefore the groups were perfectly matched. After one to one matching, the sample consisted of 30 students in experimental group and 30 students in the control group.

3.3.4 Tools and Techniques: The following tools were constructed for the study by the investigator.

Achievement Test: Achievement test (appendix I) was constructed for the subject of Social Science of class IX, to know the achievement of students before and after the intervention programme. The test included 9 chapters of second semester of Social Science text book of the academic year 2014-15.

Following nine chapters were included for the achievement test. (History) Post Independent India –I, Post Independent India – II, (Civics) Organs of Government, Judiciary in India, Indian Democracy, (Geography) Drainage System, Natural Vegetation Wild Life, and Population. The pattern of question paper was similar to the question paper constructed in the school. All the questions asked were taken from the textbook; there were a total of 24 questions. The question paper had 3 parts, Part A, Part B (section a & b) and Part C. The test consisted of objective type of questions, multiple choice based. The short type of questions and essay type of questions were descriptive in nature. Part A consisted of 14 objective types of questions. Part B (section a & b) consisted of 8 short type of questions and Part C consisted of 2 essay type of questions. All questions were compulsory. Internal choices were given in Part B (section a & b) and Part C. One hour time was given to complete the question paper both for pre-test and post-test.

Marking Scheme

The total marks of the test were 30 marks. The question paper had 3 parts, Part A consisted of 14 objective types of questions, (all Compulsory) and each question carried 1 mark. Part B (section a & b) consisted of 8 short type of questions. Section (a) had 4 questions (internal choice of any 3 questions), each question carried 2 marks. Section (b) had 4 questions (internal choice of any 2 questions), each question carried 3 marks. Part C consisted of 2 questions (internal choice of any 1), each question carried 4 marks.

Validation of Achievement Test

The achievement test was validated by three experts (appendix V) from Faculty of Education and Psychology, Department of education, the Maharaja Sayajirao University of Baroda, Social Science teacher of Convent of Jesus and Mary, Vadodara and teacher of Navrachana Vidyani Vidyalaya, Vadodara. The tool was validated for the appropriateness of the content and language.

Value Knowledge Test

A value knowledge test (appendix II) on values was constructed by investigator which consisted of open ended items. The questions were related to the conceptual knowledge of the five values of Peace, Equality, Unity, Freedom and Patriotism. It consisted of four questions for each value respectively, the total number of questions were twenty.

The four questions on each value were related to the meaning of the value, the definition of the value, the characteristics of the value and the different ways to develop the value.

Marking Scheme

There were four questions on each value. The total number of questions was 20 for five values. Question 1 and 2 carried 2 marks each. Question 3 and 4 carried 3 marks each. The total added to 10 marks for each value. The sum total marks for the whole test was 50.

Validity of the Value Knowledge Test

The value knowledge test was shown to three experts (appendix VI) from Faculty of Education and Psychology, Department of Education for its validation of its content and appropriateness.

Reliability of the Value Knowledge Test

Pearson Correlation test retest was done to check the reliability of the tool. As well as Cronbach's Alpha coefficient was used to find the reliability of the tool. The Value knowledge test had a reliability coefficient of 0.66, when tested for test-re-test reliability and 0.614 was the Cronbach Alpha score.

Table 3.3. Correlations Test retest

		VAR00005	VAR00006
VAR00005	Pearson Correlation	1	.665**
	Sig. (2-tailed)		.000
	N	97	97
VAR00006	Pearson Correlation	.665**	1
	Sig. (2-tailed)	.000	
	N	97	97

** . Correlation is significant at the 0.01 level (2-tailed).

**Table 3.4 Reliability Statistics
(Cronbach Alpha)**

Cronbach's Alpha	N of Items
.614	5

Perception Scale

Perception Scale (appendix III) was constructed by the investigator to study the perception of students on different values of Peace, Equality, Unity, Freedom and Patriotism that had been identified from the Social Science text book. There were five situations for each value respectively. Each situation had five close ended alternatives. The students had to make tick mark (✓) in one appropriate alternative given out of five alternatives. The five alternatives had strongly positive polarity, positive polarity, neutral polarity, negative polarity, strongly negative polarity. There were a total of 25 situations based on five different values; all situations given value wise were placed in a jumbled manner to avoid any pattern error.

Marking Scheme

The scores for the alternatives in each situation ranged from 1 to 5, 1 for strongly negative polarity, 2 for negative polarity, 3 for neutral polarity, 4 for positive polarity and 5 for the strongly positive polarity. Each situation had a total score of 5, adding to a total score of 25 for each value. The sum total score of all 25 situations for five different values added to 125.

Validity of the Perception Scale

The perception scale was given to 3 experts (appendix VII) from the Faculty of Education and Psychology, Department of education, the Maharaja Sayajirao University of Baroda. It was validated for its content and language appropriateness. The experts made suggestions regarding modifying few situations. They gave few situations for certain items. The suggestions given by the experts were duly incorporated by the researcher. Initially, there were 60 items in the perception scale and after validation there were 50 items.

Reliability of Perception Scale: Test retest, Pearson Correlation Coefficient as well as Cronbach's Alpha was used to find the reliability of the tool. The perception scale showed a reliability coefficient of 0.73 when tested for test-retest reliability. And 0.649 was the Cronbach Alpha score.

Table 3.5 Correlations Test retest

	VAR00001	VAR00002
VAR00001 Pearson Correlation	1	.733**
Sig. (2-tailed)		.000
N	97	97
VAR00002 Pearson Correlation	.733**	1
Sig. (2-tailed)	.000	
N	97	97

** . Correlation is significant at the 0.01 level (2-tailed).

Table 3.6 Reliability Statistics (Cronbach Alpha)

Cronbach's Alpha	N of Items
.649	5

Observation: The Social Science Teacher was asked to observe the specific value based behaviour of the students during the school hours and note it in the teacher's diary. The teacher observed the students behaviour related to different values that were being taught through the developed module. The teacher would note down their actions or behaviour related to different values in a diary.

Reaction Scale: In order to get the reaction of the students of the experimental group towards the new way of teaching values integrate with Social Science, A Likert type five point reaction scale (appendix IV) was used. The reaction scale had 20 items. These items were related to different components like the effectiveness of the module, effectiveness of the

activities conducted, significance of the values integrated with the Social Science topics, relevance of the stories integrating with different values, participation of the class, understanding values conceptually, perception of values, value practice, explanation of values, classroom management, time management, learning experiences.

Marking Scheme: Each statement had 5 options mentioned in the scale. The five options widely ranged from strongly agree, agree, undecided, disagree and strongly disagree. The scores allotted to each option were: Strongly agree (5), agree (4), undecided (3) disagree (2) strongly disagree (1). The students were required to tick (✓) on one option for each item.

Validity of the Reaction Scale: Three experts (appendix VIII) from Faculty of Education and Psychology, Department of education, the Maharaja Sayajirao University of Baroda were consulted for the validation of the tool. The tools were validated in terms of relevance of content and appropriateness of language. The suggestions were incorporated by the researcher.

3.3.5 Procedure for Data Collection:

Five research tools as described above were used to collect data. The data collection was done in five different phases. The data was collected during the second semester of the academic session December 2013 to March 2014. The data was personally collected by the researcher during this academic session.

3.3.5.1 Phase I: Development of Module

Module was developed according to the various steps of module development.

3.3.5.2 Phase II: Orientation to Teachers

An orientation of three days, four hours each was given to Social Science Teachers of experimental group by the researcher. On the first day of the orientation, using power point presentation, the teachers were given a comprehensive understanding of the meaning and concept of value, nature and classification of values. With the help of many contemporary examples, the researcher discussed how values are constantly deteriorating in present times and therefore the urgent need of value education. Further, what is value education, the importance of value education, and the various government policies that emphasise on including value education in schools were discussed. The different methods and approaches used for teaching values were highlighted, giving special stress to the integration approach. The teachers were then familiarised with developed module and its components. How the module was developed by the researcher and how the values were identified and integrated with the various sub-topic/s of Social Science was elicited.

On the second day of the orientation, a demonstration of two chapters was given by the researcher to the teachers on how to use the developed module to teach values to students by integrating it with the subject of Social Science.

On the third day of the orientation the teachers gave a demonstration of the two chapters on how they would teach values with the help of developed module through teaching Social Science.

3.3.5.3 Phase III: Pre-test

Phase III was conducted in the month December 2013, beginning of second semester. To administer the pre-tests, due permission was taken from the principals of the two schools selected for the purpose of the study. In this phase pre-tests were administered on both the control and the experimental group.

The achievement test was administered to both control and experimental group. The time allotted for the test was 1 hour and 30 minutes. Most of the students from both the experimental and control group took full 1 hour 30 minutes to finish the test.

The value knowledge test was administered to both the experimental and control group. The time allotted for this test was 1 hour and 30 minutes.

The perception scale was administered to both experimental and control. The time allotted for this test was 1 hour and 30 minutes.

The data from the pre-tests which included the achievement test, value knowledge test and perception scale were collected.

3.3.5.4 Phase IV: Implementation

This phase was conducted during the second semester of the academic session from December 2013 to March 2014. There were 125 working days in the second semester of the session, six periods per week were allotted to Social Science subject; each period was of 50 minutes. There was a total of 5 hours per week for teaching Social Science. There were a total of 80 hours for teaching Social Science for the whole second semester of the academic session. During this period of phase IV, the experiment was conducted. The experimental group consisted of students who were taught Social Science by the teacher with the help of the module developed by the researcher.

The teacher used the developed module for the purpose of teaching different values and Social Science topics respectively. The teacher integrated the five identified values with the sub-topics of the chapters as specified in the module. Discussion and lecture method was used by the teacher, giving different examples from social, cultural backgrounds, current happenings, and personal experiences to create an interactive session with the students on values.



The teacher by discussion method helped the students to identify the value that emerged from the sub-topic of the chapter.

With the help of reflective questions as directed in the module, the teacher had discussion with students that helped them to draw out their own understanding of the identified value. Later, the teacher gave the precise meaning, definition and characteristics of the value that was being discussed from the module.

Value laden story is narrated by the teacher, a short discussion on the story with the help of few interactive questions related to the story are discussed with the students where the focus is on the identified value.

With the help of various activities as directed in the module, the students were given simple task

to complete, which helped them to comprehend the identified value in more holistic way. Activities such as quiz, debates, poster making, mock sessions, slogan writing, were conducted to make the students understand the conceptual and perceptual side of the values.

At the same time the control group was taught Social Science by the traditional lecture and discussion method using the Social Science text book. The teacher did not use the developed module to integrate values for teaching Social Science. There were no discussions, storytelling or activities conducted with the students for value inculcation. The teacher only taught them the subject, gave them class projects and home assignments that were related to the various topics of Social Science.



3.3.5.5 Phase V: Post-test

Post-test of achievement in Social Science was conducted after the syllabus of Social Science was completed at the end of the second semester (March) of the academic year 2013-14. The achievement test was administered to both control and experimental group.

To test the conceptual knowledge of students in different values, the value knowledge test was administered to both control and experimental group at the end of the second semester (March) of the academic year 2013-14. The time allotted for the test was 1 hour and 30 minutes.

To test the perception of different values of the students, perception scale was administered to both control and experimental group at the end of the second semester (March) of the academic year 2013-14. The time allotted for the test was 1 hour and 30 minutes.

To test the reaction of students of experimental group on the method of teaching values through teaching of Social Science, reaction scale was administered to them. The time allotted for the reaction scale was 1 hour and 30 minutes.

All students from both the experimental and control group took full 1 hour 30 minutes to finish the post-tests. The data from the post-tests which included the achievement test, value knowledge test, perception scale and reaction scale were collected.

3.3.6 Observation: The observation of the students of the experimental group was done by their subject teacher. The teacher looked for value based behaviour in the students during the school hours. The observations were duly noted down in the teacher's diary. At the end of the second semester (March) of academic year 2013-14, reaction scale was administered on the students of the experimental group.

3.3.6.1 Procedure of Data Analysis

The data collected in the four phases was analyzed quantitatively and qualitatively. The analysis of the data were done objective wise which is given below:

3.3.6.2 Data Analysis related to objective 1: To develop module for teaching Social Science. There was no statistic used for this objective.

3.3.6.3 Data Analysis related to objective 2 : To implement the developed module for teaching of Social Science through integrated approach for the development of values like Equality, Peace, Freedom, Unity, and, Patriotism, along with achievement in Social Science. There was no statistics used for this objective

3.3.6.4 Data Analysis related to objective 3: To study the effectiveness of the module for teaching Social Science in terms of conceptual knowledge of values, perception of values and value practice of Equality, Peace, Freedom, Unity and Patriotism along with the achievement in Social Science. The value knowledge, perception of value, value practice for each value and for all values as a whole and achievement in Social Science were taken separately for analysis. The value knowledge, perception of value and achievement test were analysed quantitatively by using non-parametric statistics, Mean SD, U-test, The data related to observation for value base behaviour was analysed qualitatively based upon the observations made by teacher in the diary

3.3.6.5 Data Analysis related to objective 4: To study the reaction of students towards the developed value based module for teaching Social Science through integrated approach for the development of values. A reaction scale was used for collecting the data. Frequency, Average Intensity Index was calculated.

The following chapter is on data analysis wherein the analysis has been done objective wise.