

CHAPTER IV

DEVELOPMENT OF TOOLS; INSTRUCTIONAL STRATEGY; ACHIEVEMENT TEST

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DEVELOPMENT OF TOOLS: INSTRUCTIONAL STRATEGY, ACHIEVEMENT TEST

4.1 Introduction.

4.2 Development of Integrated Social Studies Course.

4.3 Development of Instructional Materials.

4.4 Development of the Teaching Strategy.

4.5 Development of the Achievement Test.

4.6 Conclusion.

References.

CHAPTER IV

DEVELOPMENT OF TOOLS: INSTRUCTIONAL STRATEGY, ACHIEVEMENT TEST

4.1 INTRODUCTION

The teacher's life is a continuous series of decisions revolving around three sets of questions with respect to achieve setforth objectives -

- (1) What is worth teaching? or, from the pupils' viewpoint, what is worth learning?
- (2) How can it best be taught? or, how can it best be learned?
- (3) How well have we taught it? or, how well has it been learned?

This Chapter concentrates on the last two questions - viz. how to teach effectively, as well as successfully, and how to evaluate objectively and successfully; for this required tools namely, instructional strategy and achievement test have been developed. To develop the effective instructional strategy and evaluation measurement, the whole educative process possesses an inevitable unity which comprises of well planned organization of the content, effective teaching strategy and successful evaluation procedure.

In fact, the above mentioned aspects of the educative process have an interdepending instructional sequence, which is clearly illustrated in the Chart No. 9.

CHART - 9

INTERDEPENDENT INSTRUCTIONAL SEQUENCE

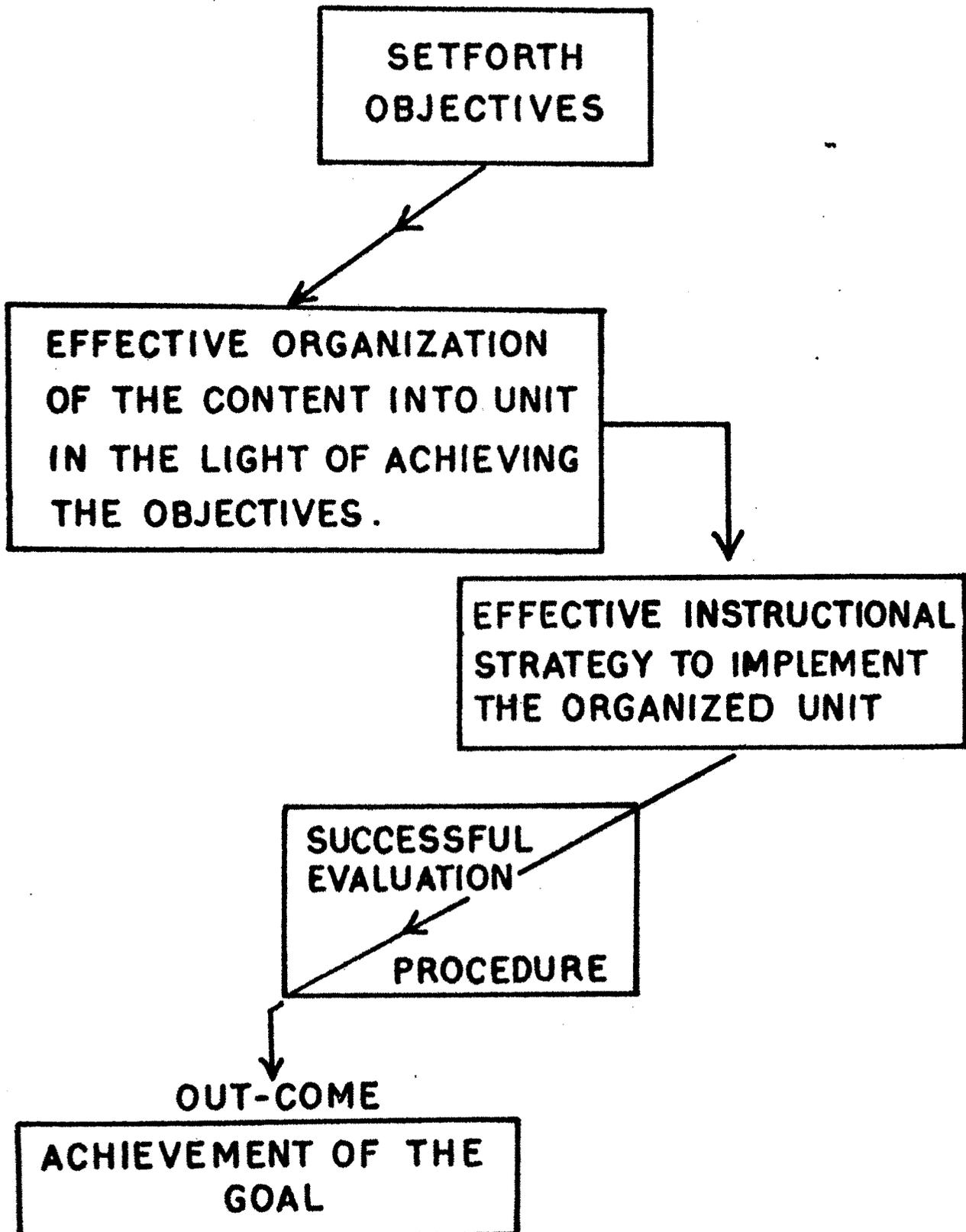


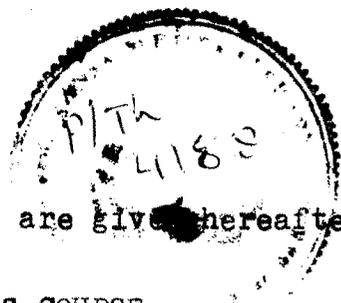
Chart No.9 indicates that to achieve the setforth objectives, the contents of the syllabus must be organized effectively into several units. To implement the organized programme, an equally effective strategy has to be developed in the light of the setforth objectives. Further, the implemented organized programme is to be measured by adopting an effective evaluation procedure. This evaluation would finally lead us to the outcome of the whole programme and would indicate how far the setforth objectives have been achieved.

Hence it is very necessary to carry out the above mentioned instructional sequence. As present study was aimed at studying the effect of the Integrated Approach to teaching social studies on the performance of the pupils, the following instructional strategy was developed:-

- (1) Organization of the prescribed content into several units of the integrated syllabus.
- (2) Development of effective Teaching strategy for implementing the Integrated Syllabus.
- (3) Development of a successful evaluation technique for measuring the outcomes of the implemented programme.

The development of effective instructional strategy can be considered from the following two aspects:-

- (1) Theoretical aspect of the development,
- (2) Procedural aspect of the development.



The details of these two aspects are given hereafter.

4.2 DEVELOPMENT OF INTEGRATED SOCIAL STUDIES COURSE :

INTEGRATED SYLLABUS FOR SOCIAL STUDIES:

2.1. Theoretical aspect of the development of

Integrated Syllabus for Social studies

1.a. Introduction:

The present study is concerned mainly with the reorganization of social studies curriculum within the prescribed content knowledge of the subject. In other words, an attempt has been made to reorganize the content knowledge of the subject to build an Integrated social studies course. Therefore, the general objectives of integrated social studies were not changed. They were the same as stated by the two Education Commissions viz. Mudaliar 1952-53 and Kothari 1964-66, while introducing the subject 'Social studies'.

1.b. The Rationale: The objectives of teaching
Integrated Social studies course:

Every subject in the school curriculum contributes towards the growth as well as development of personality of the child by helping him to promote desirable learnings and skills. Of all these subjects, social studies can contribute the most towards the promotion of citizenship qualities and spirit of democracy among the children. The aim of introducing the subject social studies has been clearly mentioned in the recommendations of the two

important commissions - The Mudaliar Commission 1952-53 and Kothari Commission 1964-66. The Mudaliar Commission stated that -

"its (social studies) object is to adjust the students to their environment which includes the family, community, state and nation." 1

Again, Kothari Commission 1964-66, advocated that -

"The aim of teaching social studies is to help the students to acquire the knowledge of their environment, an understanding of human relationships and certain attitudes and values which are vital for intelligent participation in the affairs of community, the state, the nation and the world." 2

Considering the above mentioned aims of teaching social studies in the general objectives of teaching social studies were formulated by Social Studies Project (1965-76) NCERT.

Further, in 1977 the Review Committee on the curriculum for ten years school (hereafter referred to as Ishwarbhai Committee Report 1977) reformulated specific objectives of primary education and laid emphasis broadly on the same objectives. They are as follows:-

- "(1) Acquisition of knowledge through observation, study and experimentation in the area of social and natural sciences.
- (2) Acquisition of skills and purposeful observation.
- (3) Acquisition of habits of co-operative behaviour within the family, school and community.
- (4) Development of desire to participate in productive and other processes of community life." 3

Hence, the rationale is based on above mentioned source for formulating the objectives for integrated social studies course. For the specification of the objectives, Blooms and Hestings⁴ "Formative Summative Evaluation of Student Learning", was referred to and the criteria given therein was adopted and specific objectives of syllabus for the Integrated Social studies course for Std. IV were formulated. They are as follows.

Specific Objectives of the Integrated Social Studies Course for Fourth Standard:

General objectives of social studies have been divided into knowledge and comprehension (understanding), skill, and attitude. Each of these categories is further classified. The three categories are actually intimately related to one another but for the purpose of analysis and definition, they are treated separately.

They are as follows -

- (1) Knowledge and Comprehension.
- (2) Skill.
- (3) Attitude.

(1) Knowledge and Comprehension:

For the purpose of social studies 'knowledge' means the ability to recall or recognize. Comprehension means the ability to transform into other words, ability to apply the acquired knowledge to similar new situations. These abilities assume several forms, viz. knowledge of facts and knowledge and comprehension of concepts and

generalizations. The social studies - especially history are well-known for their emphasis on specific facts. Certain facts must be committed to memory in order to secure a base from which to operate various events, names, constitutional provisions, legislative enactments. In Geography, different types of physical phenomena, their causes and their effects on man's way of life, and the like, serve as the raw material upon which the instruction is to be based.

Concepts:

Concepts are derived from the act of categorizing as Fenton⁵ points out -

"Once a concept has been learnt it acts as a stimulus to further categorizing of acquired knowledge. A concept is not a dead end; it is instrumental in further penetration. For this reason concepts are vital to social studies instruction."

Generalization:

Generalization deals with relationships between two or more concepts. Generalizations are essential to the social studies because they bind concepts together and provide firm statements which are useful for building theoretical structures or for revising previous generalizations.

Relationships:

Relationships try to find out the reasons of relating two events or two situations. Relationships deal with the ability to recognize relationships of various events and geographical phenomena.

Interpretation:

Interpretation deals with the ability to apply acquired knowledge of facts generalization and relationships to interpret new situation. Relationships and Interpretation are most essential not only in the social studies but in all disciplines because they give the vital proof of successful achievement of the learner in that particular area.

To sum up, the facts are the minute building blocks of the social studies. Concepts are the tools by which meaning is attached to sets of facts. Generalizations are the conclusions which are derived by using concepts to analyse social situation and may be further combined to produce more inclusive generalizations about human behaviour. Generalization may be somewhat tenuous because of the difficulties inherent in social science research, thus like concepts they act as stimulus to further thought more often than they provide definite theoretical statements. And the Relationships and Interpretations are the mirrors of the fact that the understanding of the knowledge of the facts, concepts and generalizations has been learnt. Therefore, a dominant purpose of the teaching of social studies in an integrated way, is to develop the understanding of knowledge of facts, concepts and generalizations and ability to interpret with special reference to the following:-

- * The geographic, economic, historical and social factors of greatest importance of a region with reference to its past, the present and the emerging future.

- * The impact of science, technology, education on man's changing way of living.
- * The interaction of people with their environment, man's use of resources, the effects of weather and climate, man's adaptation to and modification of the environment, and time, distance, and space relationships.
- * The similarities and differences in ways of meeting basic human needs here and now and in earlier times and places.
- * The growing interdependence characteristic of our times at home and throughout the world.
- * The operation of basic human activities or social functions such as transportation, communication, government, education, production, distribution, and consumption of goods and services, conservation and aesthetic, cultural and religious expression.

(2) Skill:

The second major category in the social studies is "skill". It contains a diverse range of behaviour. It belongs among the primary tasks of social studies to develop many of the skills. Skills in the social studies can be broken down into three broad groups, "research, critical thinking and democratic participation".⁶ In the present study, emphasis has been given on one major category: "research".

Research:

The first sub-category of skill viz. research involves two specific objectives which are set forth in the present study i.e. locating information or ideas and interpreting graphic and symbolic data. Location of information centre around the recognition of similar concepts or ideas in a given situation. Interpretation of symbolic data centres around the use of index in the graphic charts and maps. Once the pupils are able to read the symbolic data of the graphic charts and maps, they are able to interpret its meaning. In social studies, this interpretation occurs primarily in reading situation. While reading is a generalized skill whose constructive development is not a primary function of social studies course, it is responsible for the imparting of certain specific reading skill. This responsibility encompasses the ability to interpret graphic and symbolic data such as maps, graphs, charts, cartoons, time lines and tables.

(3) Attitude:

Social studies by virtue of their special content and because of their method and procedures that may be used in teaching social studies, should contribute greatly to emphasize democratic attitudes. Certain attitudes essential for developing democratic spirit in the mind of pupils can best be inculcated through teaching of integrated social studies course. In order to determine the specific "Attitude", The Michaelis J.O's⁷ "Social Studies for Children

in a Democracy" was referred to. The following 'Attitude' was set forth for the present study:-

(i) Co-operation with others:

The pupil

- helps the teacher when asked.
- maintains proper classroom decorum.
- helps the classmates, eager to work with others.
- shares with classmates.

(ii) Respect for the opinion of others:

- each individual in a group has right and responsibilities which must be respected.
- persuasion based on reason is used.
- each individual needs opportunities to contribute to group to achieve recognition and to be well received by others.

(iii) Regard for constituted authority:

Willingness for, -

- giving respect to group leader and teacher.
- completing assigned task though it is difficult tedious or unwanted or disliked.
- obeying group-made rules.

(iv) Acceptance of responsibility:

- individual as well as in a group.
- assignment once given is completed in time.
- things once begun are finished in the form required.
- homework and assignment is handed over when due.

CHART NO-10

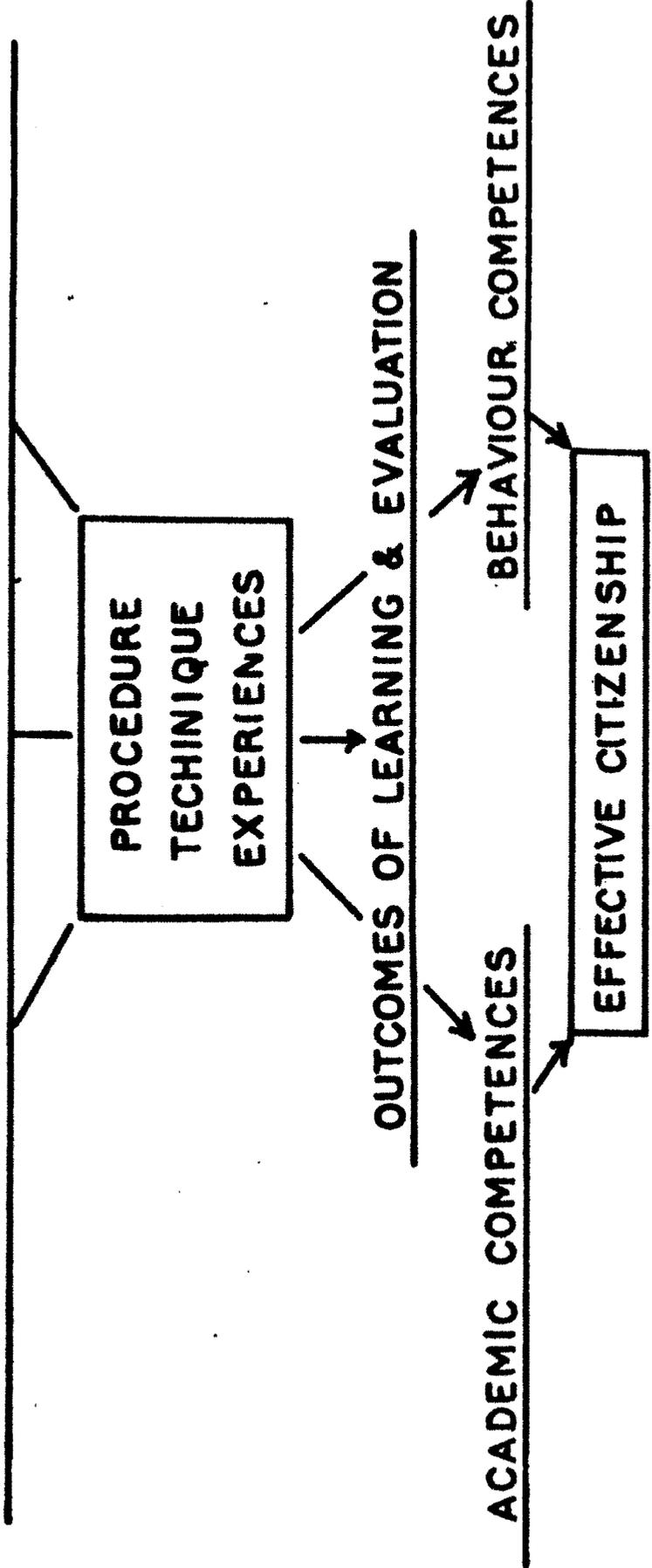
THE SOCIAL STUDIES PROGRAMME

THREE CLUSTERS OF BASIC OBJECTIVES

KNOWLEDGE
COMPREHENSION

SKILLS
RESEARCH

ATTITUDES
(DEMOCRATIC
BEHAVIOUR)



The above mentioned categories of behaviour are essential for democratic living; hence, in the present study attention has been given to develop these attitudes among the pupils.

To conclude, the programme of social studies illustrated by means of a chart of the objectives of teaching of integrated social studies course.

Chart No. 10 indicates that each of the three clusters of objectives can contribute to the development of good citizenship. A good citizen must possess appropriate attitudes and values. Social studies programme should prepare each pupil to live intelligently in the future.

To achieve these objectives, it is necessary to determine the principles under which the content matter of the subject should be organized. Hence the discussion about the underlying principles follows.

1.c. Underlying Principles for the organization of the content matter for integrated syllabus of social studies course : Integrated Syllabus:

How shall the social studies curriculum be organized to achieve the basic objectives? Curriculum framers have studied this question for many years. The Investigator, therefore, referred to a lot of previous studies and literature specially regarding the organization of the content. Some of them are as follows : Cowin (1955),

Adair (1962), Machaelis (1962), Hanna and Lee (1962), Fraser and Mocclicher (1966), Muessing (1965), and Yajnik (1966).

These studies revealed to the investigator the principles underlying the organization of content matter for the integrated social studies course. They are as under:-

- (1) The meaning and implication of the subject social studies:-"Social studies mainly concerns with Man and his physical and social environment".
- (2) Presentation of the content knowledge through relationships, i.e. interaction between the Man and his physical and social environment.
- (3) The principles of theory of learning.

(1) The first underlying principle has been accepted for organizing the content matter, because this idea is basically related to the concept of the social studies because, the social studies is a field of study which deals with man and his relations with his physical and social environment. Considering this meaning and its implication, it was decided to organize all the content of the social studies around the central object of the subject, i.e. "The Man"; and knowledge regarding human relationships was shifted from the physical and social environment. Considering "The Man" as the centre pillar, the information of all aspects of human relationships was woven around "The Man"

in such a way that it would unfold the story of "The Man and his environment" in the past, present and future.

(2) Second underlying principle has been preferred because knowledge about The Man's environment can be understood to the pupils only through his relationships; in other words, through the interaction between the Man and his physical and social environment. Man's interaction with social, economic, cultural, political institutions would provide a fairly good analytical knowledge of man's social and physical environment.

(3) Principles of Theory of Learning: There are certain basic requirements of the learning process which the teacher must take into consideration in the organization of the content matter. Advanced Psychology of learning suggests that at the pre-primary and primary stage the body of knowledge should be organized and imparted on the following principles, viz. proceeding from concrete to the abstract, from the simple to the complex, from the known to the unknown, from the whole to the part, and from the easy to the difficult.

Having determined the principles underlying the organization of the content, the immediate task before the investigator was to specify the various physical and social aspects of human relationships. A discussion thereon, follows in the next section.

2.a. Procedural Aspect of the Development of Integrated Syllabus

The major aspects of 'The Man' and his physical and social environment, roughly determined by the Investigator are as follows:-

- (1) The Man and his physical environment.
- (2) The Man and his way of life - food, clothing, shelter.
- (3) The Man and his occupations.
- (4) The Man and the various products he produces.
- (5) The Man and his means of communication.
- (6) The Man and his culture.
- (7) The Man and his religion.
- (8) The Man and his recreation.
- (9) The Man and his government.
- (10) The Man and his aesthetic expression.
- (11) The Man and his conservation.
- (12) The Man and his struggles against natural environment.
- (13) The Man and his efforts for prosperous life.
- (14) The Man and his descendant

The above rough draft containing the above fourteen major aspects of human life was given to a panel of experts in social studies. Two discussions were held with the experts, one before handing over the rough draft of the major aspects of human life, and the other after the draft has been reviewed by the experts.

Comments and Suggestions of the Experts' Panel - and
their Modification:

- (A) All the aspects given in the list were not considered by the experts as the major aspects of the human life. Some aspects were really sub-divisions of major aspects. So the sub-divisions were conveniently put under their respective major heads.

The details of how and why the aspects were classified in a particular way are given elsewhere in the study under the description of the Integrated Syllabus.

Modified list of major aspects of the Man's relationship:

- | | | |
|---|--|-----|
| (1) The Man and his physical environment. | | I |
| The Man and his descendants. | | |
| (2) The Man and his way of life. | | II |
| The Man and his occupation. | | |
| The Man and his recreation. | | |
| The Man and his aesthetic expression. | | |
| (3) The Man and his struggles against
Natural environment. | | III |
| The Man and his efforts for prosperous
life. | | |
| The Man and his production. | | |
| (4) The Man and his means of communication. | | IV |
| The Man and his conservation. | | |

- | | | |
|---------------------------------|---|----|
| (5) The Man and his religion. | ¶ | |
| The Man and his culture. | ¶ | V |
| (6) The Man and his Government. | ¶ | VI |

(B) The discussion with the experts revealed two principal viewpoints under which most of the major aspects can be classified, viz.

- (1) The impact of natural environment, and
- (2) The impact of scientific advance, on man's way of life.

(C) The experts made two valuable suggestions:-

- (1) The above mentioned two viewpoints should be continuously kept in view while implementing the programme of social studies.
- (2) Past events of the human life should be linked up with other aspects whenever possible and needed.

After the discussion with experts' panel, the Investigator reformulated and reorganized the broad major aspects of human life in the light of their valuable suggestions. The original list of fourteen has been reduced to six broad major aspects of human life termed as six major ideas for the integrated syllabus. They are as follows:-

Major Ideas:

- I. The Man and his physical environment and its benefit to his descendants.

II. Influence of natural environment on Man's way of life.

- (a) The Man and his food, clothes, shelter, occupation and festivals.
- (b) Why the man has this particular type of life and benefits of this particular way of life to his descendants.

III. The man and his efforts for prosperous life.

- (a) The man's struggle against natural environment: the impact of scientific advancement.
- (b) Development of man-made resources and its advantage to man's way of life.

IV. The impact of man-made resources on occupation of the people.

- (a) Utilization of man-made resources on the human occupation.
- (b) The effect of man-made resources on the ways of living of the people.

V. The Man and his culture.

- (a) Sociological work for the preservation of culture.
- (b) Religious work for the preservation of culture.

VI. The Man and his Government.

Region is divided into various parts for the sake of administration (physical environment). Past administrative set-up (broad outline).

Present administrative set-up (broad outline).

Then the above mentioned draft of major ideas was reorganized and reformulated for integrated syllabus and was again put up before the experts' panel. After their approval, it was finalized. The next task was to analyse the content of the present prescribed syllabus of the Fourth Standard in the light of these six major ideas. It was undertaken separately both by the experts' panel and the Investigator herself; on comparing notes it was noticed that there was no discrepancy between the two. Having discussed the same again, the integrated syllabus for Fourth Standard was subsequently finalised. It is as follows.

2.b. Final Format of Integrated Syllabus of Social Studies

Integrated Syllabus : Social Studies : Std.IV.

The Maharashtra State

Major ideas	Content
<u>Unit I</u>	
a) The Man and his physical environment, and	a) Location of Maharashtra State in India.
b) Its benefits to his descendant.	b) Natural Divisions of the Maharashtra State. i) West Coastal line - Konkan strip. ii) Hilly Region - Sahya Mountains. iii) Plateau - Maharashtra Plateau.

Major ideas	Content
	<p>c) Its benefits to its descendant - Shivaji Maharaj.</p> <p>i) Shivaji's life story (in brief).</p> <p>ii) Shivaji's childhood and education.</p> <p>iii) Shivaji's attempt to establish Swaraj by struggling against internal enemies.</p>
<p><u>Unit II</u></p> <p>Influence of Natural Environment on Man's way of life.</p> <p>a) The Man and his food, clothes, shelter, occupation and festivals.</p> <p>b) Why the Man has this particular type of way of life, and benefits of this particular way of life to his descendant.</p>	<p>a) The food, clothes, shelter, occupation and festivals of the people of -</p> <p>i) Coastal line - Konkan strip.</p> <p>ii) Hilly region - Sahya, Chanda, Bhandara.</p> <p>iii) Plateau - Rest of Maharashtra or Maharashtra plateau.</p> <p>b) Reason of the particular way of life -</p> <p>i) Climate and rainfall of the region.</p> <p>ii) Benefits of this particular way of life to Shivaji.</p>
<p><u>Unit III</u></p> <p>Man's efforts for prosperous life.</p> <p>a) The Man's struggle against the natural environment - the impact of scientific advancement.</p>	<p>a) Man's efforts for continuous supply of water.</p> <p>i) Natural resources of water supply and its position in Maharashtra.</p> <p>ii) Man-made resources of water supply in</p>

Major Ideas	Content
<p>b) Development of Man-made resources and its advantages to man's way of life.</p>	<p>b) Man's efforts for developing power resources. Electricity and steam.</p> <p>c) Man's efforts for quick transportation.</p> <ul style="list-style-type: none"> - Means of communication. - Way of communication, past and present position in Maharashtra State. - Advantage of man-made resources - to improve man's way of life.
<p><u>Unit IV</u></p> <p>The effect of man-made resources on the occupation of the people.</p> <p>a) Utilization of man-made resources in the occupation of the people.</p> <p>b) The effect of man-made resources on the way of living of the people.</p>	<p>Use of power resources in different occupations -</p> <p>a) Farming - increase in the quality, quantity and variety. Foodgrain -</p> <ul style="list-style-type: none"> i) Cereals & Pulses. ii) Fruits, vegetation & Spices. iii) Cash Crops - sugarcane, cotton, Tobacco and oil seeds. <p>b) Industries -</p> <ul style="list-style-type: none"> i) Small Scale Industries. ii) Large Scale Industries - factories. <p>c) The effect of man-made resources on the way of living of the people.</p> <ul style="list-style-type: none"> - better living. - growing interdependence in the ways of life of the people.

Major Ideas	Content
<p><u>Unit V</u></p> <p>The Man and his culture.</p> <p>a) Sociological work for the preservation of culture.</p> <p>b) Religious work for the preservation of culture.</p>	<p>a) Work of saints and poets and its effect on the society in medieval age in Maharashtra.</p> <p>b) Shivaji's struggle against-</p> <p>i) Muslim religious power.</p> <p>ii) The establishment of Swaraj and his coronation.</p> <p>iii) Shivaji as a leader.</p> <p>Leadership qualities -</p> <p>a) Statesman.</p> <p>b) Administrator.</p> <p>c) Warrior.</p> <p>d) King.</p> <p>With these qualities, Shivaji transformed the adverse factors into benefits.(advantages)</p>
<p><u>Unit VI</u></p> <p>The Man and his Government.</p> <p>a) Religion is divided into various parts for the sake of administration.</p> <p>b) Administrative set-up.</p> <p>i) Past administrative set-up.</p> <p>ii) Present administrative set-up.</p>	<p>a) Administrative division of Maharashtra for the purpose of administration.</p> <p>i) Past administrative set-up.</p> <p>Shivaji's administrative set-up.</p> <p>ii) Present administrative set-up of District & Taluka.</p> <p>- Working of Zilla Parishad.</p> <p>- Panchayat Samiti (broad outline).</p>

Practical work -

- i) Map Reading.
- ii) Watching of the sky - Pole star and Great Bear.
- iii) Preparing objects, drawing sketches.
- iv) Collection of photographs, specimens.
- v) Visits.
- vi) Excursions.

PRESCRIBED SYLLABUS

Syllabus of Geography for Standard Fourth:

- Unit (a) Revision of the portion done in Standard III.
- (b) Simple and general information about the State of Maharashtra embodying -
- i) Physical features;
 - ii) Climate;
 - iii) Vegetation and crops;
 - iv) Industries and occupation;
 - v) Means of communication;
 - vi) Districts - their chief towns, places of pilgrimage in different districts;
 - vii) Effects of geographical factors on the life of the people;
 - viii) Reading the map of Maharashtra.
- (c) Physical Geography - Effect of the following on climate:
- i) Altitude;
 - ii) Nearness from the sea;
 - iii) Winds.
- (d) Practical and observation work -
- i) Watching of the high sky - observation of the Pole Star and the Great Bear;
 - ii) Finding the direction of wind;
 - iii) The concept of map making and map-reading.

Syllabus of History and Civics:

The portion of History is taught simultaneously with that of Geography. It is as follows:-

- (a) A brief outline of the history of Shivaji and his achievements -
- i) Influence of the saint-poets and the result-awakening of a spirit of unity among people.
 - ii) The family of the Bhosles and the birth of Shivaji.
 - iii) Childhood and education of Shivaji.
 - iv) His vow to establish 'Swaraj' his collaborators and initial work.
 - v) Establishment of Swaraj -
 - a) Battles with Maratha Saradars and Jagirdars.
 - b) Battles with Bijapur.
 - c) Battles with Moghals.
 - d) His conquest of the South.
 - vi) His coronation : Appointment of Ahsta-Pradhan.
 - vii) His greatness with special reference to the following qualities -
 - a) An administrator.
 - b) A great warrior and statesman.
 - c) Source of inspiration.
 - d) Chivalry.
- (b) Civics and Administration.
- Knowledge and working of Zilla Parishad and Panchayat Samiti (broad outline).

2.3 COMPARISON OF THE TWO SYLLABI

New Integrated Syllabus and the prescribed syllabus Of Maharashtra State:

In comparing the two syllabi, one would easily notice that in the integrated syllabus the contents of History, Geography and Civics have been carefully interwoven into one integrated whole, while the same appear to be loosely and separately placed in the prescribed syllabus.

The contents of the integrated syllabus have been organized on the basic principle of interaction between man and his physical and social environment; the prescribed syllabus, on the other hand, merely presents isolated bits of knowledge in Geography, History and Civics.

In the integrated syllabus emphasis has constantly been laid on interaction or relationships while dealing with Man's physical and social environment. To illustrate, let us refer to the first unit in the integrated syllabus, viz. 'The Man'. Taking the advantage of the geographical setting of Maharashtra, Shivaji resorted to guerilla warfare and by fighting against his enemies established 'Swaraj'. These facts have been pointed out in the integrated syllabus, and convincingly bear out the principle "Integration between Man and physical and social environment".

In the prescribed syllabus, on the contrary the social and political happenings in the Maharashtra State are in no way shown to be related with the geographical setting, since

both the History and Geography syllabi have been prescribed independently of one another.

The element of human relationship is not seen in the physical environment except in (VII) Seventh Section of the Geography syllabus and Man's relationship with his physical environment has been scarcely mentioned in the History syllabus. Another issue is that in the History syllabus, the Man's relationships with his social environment are referred to but they are presented with the purpose of merely enumerating factual chronological events and not with the purpose of emphasizing interaction between the Man and his social environment.

According to the new concept, social studies is the study of the Man and his relationships with social and physical environment. It deals with human relationships. This fact has been overlooked while organizing the content of the prescribed syllabus, though it is titled as "Social studies".

Contrary is the case with the integrated syllabus. Here each unit is prescribed in terms of "Human Relationships" and the interaction between man and his physical and social environment has been constantly kept in view. In the second unit, the man and his relationship with physical environment was organized in view of influence of natural environment on man's way of life in particular geographical setting. Interaction between man and his physical environment has been stressed in the Third and

Fourth Units and how man struggles against his physical environment and develops new resources to make the life prosperous has been dealt with. Though the content of these two Units (III & IV) is taken from Geography, it is presented in terms of relationships. The purpose of these two units is to show how the man has developed new resources and he has used the man-made resources to improve his way of life. Further, in the Fifth and Sixth Unit Man's relationship with his social environment is expressed in terms of cultural and political institutions.

Moreover, while organizing the content of the integrated syllabus, attention was paid to the principles underlying the theory of learning. It was not the case with the prescribed syllabus. Such principles as 'proceeding from known to the unknown', from simple to complex, from concrete to abstract, were mostly followed while organizing the content of the integrated syllabus.

It also contains the life story of Shivaji whose name is a house-hold word for the pupils of Maharashtra.

In the second unit, too, the principle of proceeding from known to unknown has been carefully observed. It starts with food, clothing, shelter and occupations of the people of Maharashtra - things which concern with the daily life of the pupils. Then, it raises the question 'Why these people have a particular type of life' and in an attempt to find out the answer the pupils are introduced to climatic conditions of Maharashtra region. Thus, the

content of each unit has, as far as possible, been organized on the psychological principles of learning.

Quite opposite is the case with the present prescribed syllabus. In Geography, the physical features climatic condition of Maharashtra region are given first and then follows the way of life of the people.

And in History, information of chronological events of the life of Shivaji was presented.

In brief it can be stated that the content of the prescribed syllabus in Geography consists of miscellaneous bits of knowledge about the physical environment and in the History syllabus, historical events are merely given chronologically without bothering about the purpose of teaching social studies. The integrated syllabus, on the other hand provides unified and integrated knowledge about man's relationships with his physical and social environment and consequently helps to achieve the objectives of teaching social studies.

4.3 DEVELOPMENT OF INSTRUCTIONAL MATERIALS

3.1. Introduction

The main important task of the present investigation was to develop the integrated syllabus of social studies and the next equally important task was to implement the newly developed integrated syllabus into actual classroom situation. For the implementation of the same, it was necessary to develop effective instructional materials. This section of the present Chapter, therefore, deals with the development of instructional material.

The implementation of the programme of integrated social studies syllabus in actual classroom situation needs effective planning for its teaching. The plan for teaching presupposes two important tasks, viz. -

- (1) To prepare plans for teaching the units of the integrated syllabus, and
- (2) to develop teaching strategy to implement the above mentioned plans.

As pointed out in the introduction of this Chapter, the development of effective instructional strategy was considered from the following two aspects:-

- (1) Theoretical aspect of the development of the plans for teaching the units.
- (2) Procedural aspects of the development of plans.

3.2. Theoretical Aspect of the Development of the Plan for teaching the units of Integrated Social Studies Syllabus:

2.a. Introduction:

For preparing plans for teaching the units of the integrated syllabus, it was necessary to take into consideration the maturity level of the pupils. In the present study, the age group of children in the Fourth Standard ranges generally from 8+ to 9+ years. A working knowledge of how children of this age group grow and develop is essential for the teachers. Though not enough scientific data about the Indian children are available, it would be worthwhile on the basis of already existing findings which are more or less of universal application and common experiences of teacher, to discuss some of the salient growth characteristics which have a direct bearing on learning processes.

2.b. Some general growth characteristics of the present sample and their implications:

Physical - Growth of the age group 8+ to 9+ is slow and steady with small muscles developing physical endurance. The hand and eye co-ordination is developing. Span of attention is still short but increasing; interest and ability are important factors. A rapid change in children's growth is manifested in their love for both physical and mental activities. They have excessive energy. They do not like to sit idle even for a little while. The

children of this age group gradually learn to use their smaller muscles and are quite interested in activities that need sustained effort. They like to play, often vigorously and increasingly with definite purpose. There is a desire to be like their elders. They have a natural tendency to imitate an elderly person.

Intellectual -

A great deal of mental activity goes on through language in speaking, reading, writing, thinking. Their world, therefore, enlarges at a rapid rate and with encouragement and opportunity, they start exploring it intellectually and with imagination and with confidence and zest. Children of this age have unending curiosity to understand and know about the community expanded beyond home and school. When they see something new, their curiosity is whetted. They ask many questions about the why, what, how, where and when of things around them. The questioning is the key to effective learning. There is a growth in vocabulary but yet it is quite restricted. Abstract thinking is developing slowly, but some attempt is made at generalizations. They are highly imaginative. Through their imagination, they can transport themselves to any place or time. But there is a lack of respect for property and right of others. To children, everyone is equal. They are maturing, but they have not still developed concepts of time and place. They like to assume (and follow) leadership in small group and to enter into team work in larger group.

Emotional -

Children of this age group are still very immature and lean heavily on adults for support. They are very sensitive to the opinion of adults. Hence they desire adult-approval but start to work out their personal ideas. They are extremely social with development of greater ability to co-operate. They, therefore, desire the approval of other children. They want recognition. They need to feel respected and esteemed both by the teacher and by their peers. They love to belong to a group. Initially they are normally selfish and absorbed in their own interests and desires. Gradually, however, they learn to spare things for and work co-operatively with others. However, all children want love and understanding. This implies the desire to be fully accepted. It is necessary to give them a sense of security and a cordial environment for growth. If not fully satisfied, this need leads to many kinds of personality disturbances such as truancy, shirking work, telling lies, and stealing.

Though children of this age have similar characteristics, in many ways they are different from each other. There are differences in intelligence, interests, attitudes and values and emotional reactions. This is primarily because each child comes from a different background of experience and has developed different understanding. The background of his experience depends upon factors like the size of the family, the place of each child in the family,

the home situation, the adult pattern of behaviour, and the values held by the family. It is because of these likenesses and differences that there is need for effective planning for teaching each unit.

2.c. The plan for teaching the units of integrated social studies syllabus:

An effective planning for teaching the units is that which considers the maturity level of the children and their previous learning experience. Therefore, considering the growth characteristics and its implications as well as previous learning experiences of the present sample, the plan for teaching each unit of the integrated syllabus is prepared on the following lines:-

- (1) Overview of the teaching unit.
- (2) Specification of the objectives.
- (3) Content analysis of the teaching unit.
- (4) Teaching aids.
- (5) Teacher-pupils activities.
- (6) Evaluation.

(1) Overview of the teaching unit

It is psychologically preferable that the teacher should know his path or his way (i.e. background and the main topic of the teaching unit) on which he has to move because this will give insight to the teacher for teaching the unit and thereby indirectly, he would get some motivation and make himself mentally prepared for

carrying out suggested plan of the unit. Hence, a brief summary of the teaching unit is given. It enables the teacher to get at the background of the unit. Thereby the teacher can keep in view the main points of the teaching units. Thus, the brief overview of the unit gives a clear picture of the whole teaching unit.

(2) Specifications of the objectives in terms of pupils' behaviour

What specific objectives should be achieved through the teaching of a particular unit? These have to be given in terms of learning outcomes which are spelt out in terms of pupils' behaviour. After giving learning experiences what attainment would be achieved by the learner, in each specific objective of the teaching unit has been mentioned specifically, as well as their achievement were stated in the form of observable behavioural changes. These statements of objectives are the goals in the direction of which social studies curriculum seeks to change the pupils. Statements of objectives in terms of pupils behaviour, therefore, guide both the teaching and the evaluation.

(3) Content Analysis of the teaching unit

In a given syllabus, various topics are merely listed down. The text book written follows the syllabus and gives only factual information on the prescribed topics. This, by itself, is not enough to bring about the expected behavioural changes in the pupils. Hence there is a need of the content analysis. While analysing the content of

each unit of the integrated syllabus, the new terms, concepts, generalizations, etc. occurring therein, were listed down; their relative value and importance in the light of the desired objectives was determined, and the order and manner of their presentation was also decided. Thus, the content analysis covered all the teaching points and defined clearly the nature and scope of each unit.

(4) Teaching Aids

For successful teaching learning process, a teacher should explore a wide variety of materials to find suitable aids for instruction, to supplement what the text book provides, to add to information, to broaden concepts and to arouse interest. The selection, improvisation and use of proper instructional aids play an important part in the realization of the instructional objectives of the subject. The text book, though very important among the instructional aids, is not adequate in itself to help the child to acquire the expected learning in terms of knowledge, understanding, skills of learning, behavioural skills and attitudes. It needs to be supplemented by other aids such as the work book, test items, charts, maps, films, etc. to further explain and concretize the various concepts. Hence in each period instructional aids, viz. printed and cyclostyled material ^{and} or visual aids like charts, maps, pictures, work books or audio-aid, etc. were used.

(5) Teachers' and Pupils' Activity

The desired objectives have to be achieved through teachers' and pupils' activities. It is, therefore,

important to select pupils' activities that would best achieve the objectives. While selecting these activities, the question of individual differences and the level of maturity was given careful consideration.

The activities which formed the learning experiences to be given to the pupils in each period were of various types and were laid down in details beforehand. The role of the teacher in the teaching - learning process in general and in the actual classroom practice in particular, was mainly that of a guide, helper and a wise friend, and it was specifically predetermined for each period. The role of the pupils was not that of mere passive listeners but was that of active learners participating in various types of activities already determined for each period.

(6) Evaluation of the Unit - Unit Test

The last stage in the unit planning is the preparation of the unit test. It is a small test to be given at the end of teaching a given unit. A unit test is not just a random assortment of questions. To be an effective instrument of evaluating academic achievement it has to be structured according to the pattern decided in advance. Taking into consideration the expected learning outcomes, the Investigator prepared a blueprint for each unit test. It was a three-dimensional chart giving the placement of the different questions in respect of:-

- i) the objectives tested by each,
- ii) the content area covered by each; and
- iii) the form of questions which is most suitable for testing (i) and (ii) above.

In the light of the blueprint, the unit test was developed for each unit.

3.3. Procedural aspects of the development of plan for teaching the unit:

According to the format for planning unit a rough draft of each unit was first prepared. Then it was discussed with experts in the subject area as well as with some professors and lecturers who were specialised in teaching methodology and evaluation. After a good deal of discussion on the rough draft, a final script was prepared for each unit separately. Then, the script of the unit plan was reviewed by the same above mentioned experts as well as by experienced teachers working in the primary schools as well as secondary schools.

- * Suggestions from experts were mainly about the version of the statement of terminal behaviour and periods allotted to each unit.
- * Suggestions from the social studies teachers were about the analysis of the contents and periods allotted to each unit.

A. Suggestions regarding the statement of terminal behaviour and their Modifications:

Experts' suggestions were as follows:-

In the original script, verbs such as "say", "tell" were used for the indicating terminal behaviour. Hence it

was suggested that different action verbs according to the nature of different specific objectives should be used. e.g.

<u>Specific Objectives</u>	<u>Action verbs to be used</u>
1) Concept	- pupils recognize concept and explain.
2) Generalization	- pupils generalize and state.
3) Skill	- pupils interpret symbolic data. pupils locate the idea.
4) Relationships cause-effect	- pupils find the cause-effect relationships and predict the reasons.

B. Suggestions regarding periods allotted to each unit and their modifications:

There are six units in the integrated syllabus and for each unit 8 to 9 periods (35 minutes a period) were allotted and to complete the whole syllabus it would require 52 periods in all. But according to experts' suggestion, 52 periods would not be adequate to cover the whole social studies course. Hence, 2 to 4 more periods should be allotted to each unit. Thus in all round about 64 periods would be required to cover the whole integrated studies course.

C. Suggestions regarding analysis of content and their modifications:

In each unit, there were two or three sub-ideas and

they were treated as a whole and learning experiences were planned accordingly. But in the opinion of the experts in one unit too much new content has been included. For example, in the First Unit, the major idea "The Man and his physical environment and its benefits to his descendant" covers the content of four chapters of the prescribed History text book and two chapters of the Geography text. Considering the maturity level of the pupils, six chapters in one unit would mean a rather heavy dose for them. This could not be helped since the content, though much in amount, formed a meaningful whole. But this large amount of content can be conveniently subdivided into two parts and learning experiences planned, be spread over equally.

The scripts of the unit plans were modified in the light of the suggestions of the experts and were put up for their approval. After their approval, the same were finalized for implementation. The next important task was to develop teaching strategy for teaching the units in actual classroom situation. Hence the next section of this chapter deals with the development of teaching strategy.

4.4 DEVELOPMENT OF THE TEACHING STRATEGY

4.1. Introduction

Teacher pupils activities and their organization are crucial in the educational process. The achievement of curricular objectives is contingent upon proper visualization and effective manipulation of the programme. And for the effective manipulation of the planned programme of the subject, effective teaching strategy ought to be developed. The present section, therefore, deals with the development of the teaching strategy. As stated in the introduction of the present chapter, the development of the teaching strategy was considered from two aspects, viz.

- (1) Theoretical aspect of the development of teaching strategy.
- (2) Procedural aspect of the development of teaching strategy.

4.2. Theoretical aspect of the development of the teaching strategy

Teaching strategy indicates a series of teacher directed activities that result in learning by the pupils. It is composed of several steps. Many of the steps or elements used in a particular method, are also used in other method.

2.a. Foundation for formulating the teaching strategy:

Wesley E.B.⁸ has given seven basic possibilities

of communicating which includes all the basic aspects of the teaching process. They are :-

- | | |
|---------------------|----------------|
| (i) Talking | (ii) Picturing |
| (iii) Demonstrating | (iv) Gesturing |
| (v) Writing | (vi) Reading |
| (vii) Guiding. | |

Wesley E.B. and Adams M.A.⁹ have suggested eleven basic types of learning experiences. They are as follows:-

- | | |
|------------------|--------------------|
| (i) Learning | (ii) Experimenting |
| (iii) Creating | (iv) Observing |
| (v) Co-operating | (vi) Collecting |
| (vii) Leading | (viii) Following |
| (ix) Recreation | (x) Reciting |
| (xi) Evaluating. | |

Combination of basic elements of methods and types of learning experiences are always changing. Hence, considering the growth characteristics and their implication for the present sample, new combination of basic elements of methods and basic types of learning experiences were developed, which are given in Table No.5. It is as follows:

Table No. 5

"Combination of Basic Elements of Methods and Learning

Experiences employed in the newly developed Teaching Strategy"

Steps No.	Title	Basic Combination of Elements of Methods	Types of Learning Experience
I.	i) Introducing topic. ii) Explaining new concepts.	1) Talk 2) Demonstrating 3) Picturing 4) Writing 5) Reading.	Listening, Understanding, Reading, Recalling.
II.	Exploratory observation of the displays with 'Key' Paper Sheet.	1) Guiding 2) Feedback (At the end of the period)	1) Experimenting - trying, searching, thinking. 2) Observing - comparing, recalling, perceiving. 3) Co-operating - sharing, talking, taking turn, helping. 4) Creating - writing. 5) Learning - understanding. 6) Evaluating -
III.	Exploratory work with Text Books, and Key Questionnaires.	1) Guiding 2) Feedback (At the end of the period.	1) Learning - reading, understanding, assimilating.

Steps No.	Title	Basic Combination of Elements of Methods	Types of Learning Experience
			2) Experimenting - trying, searching. 3) Collecting - gathering information. 4) Creating - writing. 5) Evaluating -
IV.	Activity of the Groups. Discussion among the Group.	1) Guiding.	1) Reciting - discussing, speaking, repeating, summarizing. 2) Co-operating - sharing, suggesting, substituting, reporting. 3) Following - accepting, listening. 4) Evaluating.
V.	Activity for whole class (in any one form): i) Discussion by Question-Answers. ii) Academic Play. iii) Arranging Exhibition. iv) Dramatization.	1) Talk 2) Reading 3) Writing.	1) Experimenting - asking, thinking, trying, testing. 2) Learning - listening, reading, recalling, understanding. 3) Co-operating - participating, taking turn, performing, talking, suggesting.

Steps No.	Title	Basic Combination of Elements of Methods	Types of Learning Experience
			4) Creating - writing. 5) Evaluating - modelling, acting, dramatizing.
VI.	Presenting Work Report.	Gesturing.	Reciting - speaking, reporting.
VII	Unit Test	-	1) Learning - thinking, understanding. 2) Creating - Writing.

While formulating above mentioned combination of different elements of methods and types of learning certain basic requirements had to be considered. They are dealt with in the next section.

2.b. Some considerable requirements for formulating Teaching Strategy:

i) Motivation is basic to learning:

The primary task in instruction is to manipulate the environment in such a way that children are stimulated to learn. It happens best when goals for learning

are established in terms of the child's need to know, to master, to create, to express, to relate one-self to the world and others, etc. Incentives such as praise and recognition promote learning. The thrill of acquiring new knowledge and getting satisfaction out of it, is in itself a strong motivating force for the higher forms of learning. Variety of learning experiences and ample instructional materials,* have therefore been organized and developed in the new teaching strategy.

ii) Learning Experiences:

Learning experiences organized in the light of achieving the objectives, form an important part of the teaching strategy. Effective learning depends upon how effectively learning experiences are organized. According to the eminent educationists, like John Dewey, Froebel, effective learning with respect of achieving the objectives takes place when pupils are involved actively in teaching-learning process. In other words, effective learning experiences are those which provide ample opportunity to the pupils for active participation in the teaching learning process. Teaching learning process should be learner-dominated and not teacher-dominated. Hence, in the present teaching strategy learning experiences consist of a variety of activities for children.

* Variety of learning experiences and instructional materials have been described in variety of activities and teaching aids.

iii) Activities for Children:

Activities play an important part in the process of learning. They stimulate children's interest in the subject and thus help in strengthening the foundation of learning. To organize the work effectively and to ensure good discipline, it is necessary to involve the children in a variety of activities. The activities were designed to clarify and make meaningful the rather abstract concepts and understandings associated with social studies programme. Activities motivate pupils. The excitement of discovering new ideas and information motivate pupils to further activities on their own.

A wide variety of activities had, therefore, been organized in the new teaching strategy. They were as follows:-

- (1) Exploratory observation of the displays.
- (2) Exploratory work with the printed and cyclostyled materials.
- (3) Discussion among the groups and with classmates.
- (4) Writing answers to question work report of the group, and of the individual.
- (5) Collecting pictures, photographs, specimens.
- (6) Preparing paper models, drawing sketches.
- (7) Organizing exhibitions, systematic preservation of the collection.
- (8) Dramatizing some events from the history.
- (9) Playing academic games.
- (10) Visits or excursions.

Out of these activities, exploratory observation, exploratory work with printed and cyclostyled materials, discussing, reading and writing, form the basic elements of new strategy and hence these activities or learning experiences are common to all topics of all the units. The remaining activities were resorted to according to the nature of the content. All learning experiences were given through individual or group activities.

How these new activities form the basic elements of the new strategy and facilitate learning in the direction of achieving the goals, have been mentioned in the Section 2(c) of this Chapter, entitled "Steps of the new Teaching Strategy".

iv) Learning experiences through group and individual activities:

According to the latest knowledge acquired in 'the field of learning',¹⁰ it is said "that even in academic matters pupils learn more easily from their equals than from the teacher". Well-directed group work is used to improve individual and group study. More effective learning may be secured by having a group of children discuss, evaluate, challenge, revise, and share ideas, suggestions, activities, motivation, and directed towards the attainment of worthwhile objectives; democratic attitudes and behaviour patterns such as sense of responsibility, creativity, respect for the opinion of others, co-operation, regard for constituent authority can be developed; moreover some skills

such as making and presenting reports, participation in group activities, self study habits are developed. Through group activity the teacher gets an opportunity for manipulating pupils' relationship with a view to improving social climate of the class.

Individual activity within the group served the following objects: (1) paying individual attention to each child; (2) enable each child to work at his own rate; (3) training children to be conscious of their progress and to work and think for themselves and to rely upon their intelligence and capacity. In the present teaching strategy a good deal of individual and group activities were organized.

v) Instructional Teaching Aids:

The judicious use of instructional material is a crucial part of the teaching-learning process. Instructional materials reflect the purpose in using them. The purpose may be the concretization of an idea or inculcation of an attitude. Concrete objects, models, pictures and charts are used for the concretization of an idea and dramatization, academic games, simulation for the inculcation of attitudes.

In a balanced social studies programme, three types of instructional resources are used:-

- (1) Audio visual materials.
- (2) Printed materials.
- (3) Community resources.

In fact, Integrated Approach encompasses the utilization of all the above mentioned resources of instructional material for effective teaching learning process. In the present study, considering child's maturity level, their growth characteristic and limitations of the investigator, the following instructional materials were prepared:-

- (1) Wide variety of visual aids.
- (2) Printed and Cyclostyled materials.

I. Visual Aids:

Visual aids are devices which present unit of knowledge through visual stimuli with a view to help learning. They are the devices to concretize the knowledge to be presented and help in making a learning experience appear as real. However, visual aids are not self-sufficient teaching devices but usually supplement the work of the teacher and help in the study of the text books. Maps, Graphic pictures, Charts were prepared according to the requirements of each topic of each unit.

Maps -

Maps serve a variety of functions. They are means of recording information, of clarification, of comparison and of communication. The principle function of school maps is to reveal geographic, economic, climatic, political and other data of the region for the sake of the pupils. Maps present condensed information of areas too large to be

viewed or comprehended directly, consequently they are not only aids to learning, they are the only means by which factors can be presented for learning.

In the present study, a wide variety of maps of Maharashtra State were prepared to present varied data of the Maharashtra State, viz. physical features of Maharashtra State, types of vegetation, rainfall, temperature, different occupations of the people, communications, food production, variety of food crops and cash crops, important places of the region, etc.

Graphic and Picture charts:

Graphic and pictorial charts are used to attract child's interest and to provide information in visually structured form. These charts are prepared to clarify new terms and concepts, to illustrate relationships or to give important information and help in making learning experience appear as real. They are used to stimulate class activities and create interest in the children. The charts give vivid ideas of the events and children can learn and understand easily.

In the present studies, numerous different graphic and picture charts were prepared for geographical and climatic explanation of Maharashtra State, way people live, their different occupations and on the life of Shivaji, Shivaji's struggle against the Muslims, present administrative set-up of the district, Panchayat Samiti, etc.

Nature of Graphic and Pictorial Charts:

Graphic and pictorial charts were prepared in various ways. Some of them were mere line drawings, some were paintings and drawings and some were coloured pictures.

On each chart a few sentences were written which reflected the main theme of the topic and gave knowledge of the important facts or concepts of that particular topic. The sentences formed the key to exploring and getting the information after observing visual aids. These visual aids were prepared in such a way that they provided opportunities for helping children think on that particular theme and for acquiring knowledge about the facts and concepts without guidance from the teacher.

Such type of visual aids motivate the children, arouse their interest and make them active in the teaching learning process. (Please refer to Appendix ^{'A'} wherein all the visual aids, maps, graphic and pictorial charts used in the present study are given unit-wise).

II. Printed and Cyclostyled Material:

Considering the reading ability of the experimental sample, only text books of History and Geography were selected from the printed materials. The text book, though an important instructional aid, is not adequate in itself to help the child to acquire the expected learnings in terms of knowledge, understanding, skill of learning, behavioural skills and attitudes. It needs to be supplemented by other

aids, in order to ~~further~~ explain and concretize the various concepts. Therefore, the following two types of cyclostyled material sheets were prepared for each part of each unit: (i) Key Sheet; (ii) Key Questionnaire.

The first type of cyclostyled material key sheets are titled as 'Observe the maps, charts and pictures and get the information'. The title itself indicates the purpose of preparing this type of cyclostyled material. It is the key which helps the children for exploratory observation of the display and for getting the information.

Nature of the Key Sheet:

In accordance with the sequential order of the content analysis of the unit, some important sentences with some blanks were given in the key sheet. Pupils read those particular sentences from the key sheet, observed the given chart, map, or picture in the light of those sentences, searched for the missing words in the key sheet, filled in the gaps with suitable words, and thus completed the sentences. Pupils found this sort of exercise quite interesting and enjoyable since it helped them to develop a brief summary of the given topic, and thus increased their confidence of acquiring knowledge by their own efforts.

Nature of the Questionnaire:

The other type of cyclostyled material consisted of a questionnaire and substitution tables. It was to be used by the pupils as a key to explore the required information from the text book.

Items in the questionnaire were based on the same content as that of the key sheet, but they were either in the form of questions to be answered, or substitution tables to be completed by the pupils by collecting the required information through their exploratory reading of the text book. Taking into consideration the particular nature of the content of each topic, questions and substitution tables based on each concept, generalization or relationship were prepared. So this key sheet-2 proved very useful to the pupils, while they did their exploratory reading of the text, in order to locate the required content. Moreover, together with the observation of the displays, it gave the pupils a rich learning experience. When the pupils completed this work, they noticed that a brief summary - much better than any formal one - of the topic concerned, was automatically developed. (Please refer to Appendix 'A' for unit-wise 'Key Sheets' and Questionnaire).

2.c. Steps of the new teaching strategy and time allotted to each activity

New Teaching Strategy consists of a series of learning experiences that are classified under six major headings; providing six different activities. These six different steps that formulated the new teaching strategy are as under:-

<u>Sr.No.</u>	<u>Step</u>	<u>Period</u>	<u>Minutes</u>
I	Introduction to the new topic	1	35
II	i) Exploratory observation of the display with key sheet 1.	1	20
	ii) Discussion among the group.		10
	iii) Feedback.		10
III	i) Exploratory work with Key Sheet 2 and the text book.	1	20
	ii) Discussion among the group.		10
	iii) Feedback. (Content is the same as for Exploratory observation).		10
IV	Activity for the whole class.	1	35
V	Writing and presenting Work Report.	1	35
VI	Evaluation of the unit: Unit Test.	1	35 to 40 min.

All the above mentioned series of activities are to be conducted for ~~one part~~^{each} of the unit.

There was no rigidity in time allotted to each of the activities, within a period.

First four steps should cover the one part of the one teaching unit.

After completing both the parts of the unit, (unit being divided into two parts), next two steps i.e. Step V and VI should be conducted.

Before starting the teaching by new teaching strategy

orientation programme regarding new strategy should be conducted for one period to emphasize the fact that all the learning experiences are organized through individual and group activity.

2.d. Description of each activity (step) of the
New Teaching Strategy

Introduction to the new topic as well as instructional materials -

Purpose - The purpose of this first step is to:-

- i) motivate the pupils,
- ii) give clear idea to the pupils about what they have to learn in the next 4 or 5 periods,
- iii) explain new concepts which will facilitate pupils' learning on their own, and
- iv) to acquaint the pupils with concerned instructional materials.

Nature of activity - This activity is teacher-oriented wherein the teacher motivates the pupils by displaying some pictorial charts or maps and arouses the interest of the pupils. Thus the teacher prepares the pupils mentally for learning.

The teacher takes a brief overview of the unit whereby pupils can know what they have to learn in the next 4-5 periods.

The teacher explains the new concepts in the topic.

The teacher gives information about the instructional

materials to be used and explains how to work with them.

2. Exploratory Observation of the displays:

Purpose of this activity is -

- i) to make the learner active participant in the teaching-learning process,
- ii) to make pupils learn on their own and at their own speed and collect information,
- iii) to enable the pupils to understand concepts, generalizations and relationships,
- iv) to develop the skills of interpreting symbolic data, and locating the idea or information about particular event, concept, etc., by observing the displays,
- v) to enable the pupils to shoulder responsibility for the assigned task both individually and as a member of the group.

Nature of the Activity: This activity is pupil-oriented. The teacher gives copies of the key sheet to the group leader and asks him to distribute them among the members of the group. The teacher explains the key sheet and gives detailed instructions about the job they have to do during the period. Then, each pupil observes the display individually and tries to collect information in the light of the given key sheet, and immediately puts the same down on the key sheet. After completing the observation of the display, they move to another display. In this way, pupils move from one display to another according to

their need and complete the assigned work at their own speed. While doing this task, they can talk with their group members or classmates or the teacher for having guidance from them, or ask difficulty if they have any.

The teacher supervises the work of the class, and if required solves the difficulties of the pupils.

3. Exploratory Work with the key questionnaire and the text book, on the same content:

Purpose : The purpose of this activity is -

- i) to make the pupils to collect further information on the knowledge already acquired through the observation of the displays,
- ii) to develop deep insight about recognized concepts, generalizations and relationships,
- iii) to develop the 'skill' in locating the ideas or information from the printed materials,
- iv) to teach the pupils to work in a group which facilitates the development of the following attitudes : co-operation, shouldering responsibility, respect for other's opinion, and regard for constituent authority (group-made rules).

Nature of the activity : This activity is pupil-oriented. The content is the same but the nature of the key sheet is different. Pupils approach to exploratory work is, therefore, different. Pupils' sit in a group, refer the given books, and locate the required information therein and with the help of the given questionnaire

collect more information on the already acquired knowledge. The questionnaire serves as a key for exploring information from the books. Pupils in a group can talk and consult among themselves, if necessary but the main thing is to work individually as well as in co-operation with other group members; they can even take guidance from the teacher, if necessary.

4. Discussion among the group:

Purpose:

- i) to make the learners work in a group which will help to inculcate democratic attitudes such as:
(a) co-operation; (b) assuming responsibility for the assigned task; (c) respect for the opinion of others; and (d) regard for constituent authority.
- ii) to communicate one's thought to group members,
- iii) to acquaint oneself with the ideas or thoughts of others,
- iv) to enable the pupils to interpret the facts and concept in similar new situations,
- v) to reinforce the acquired knowledge; and
- vi) to enable the group leader to check the work done by members of his group.

Nature of the Activity : This activity is group-oriented. Pupils sit among their groups. The teacher gives, if necessary, some instructions regarding their previous work. If necessary, some explanation is also

given by the teacher. Pupils verify their collected information with the help of their group members. The group leader also checks whether all the members of the group have completed their work. If any member of the group needs to refer the books or observe the display, he may do so again in order to verify his collected information.

5. Activity for the whole class:

Purpose:

- i) to make the learner to understand that though the class is divided into small groups, the whole class is one group and these small groups are parts of the whole class group,
- ii) to reinforce the acquired knowledge which pupils have gained through the three activities,
- iii) to explain the content, concept, etc. which is not understood,
- iv) to judge how far pupils have learned from the last three activities and give feedback on the content, which is not understood.
- v) to strengthen the acquired knowledge of the pupils, and
- vi) to develop the ability to apply the knowledge of the concept, facts, etc. in similar new situations, and to make generalization.

Nature of the Activity : Different activities are organized for the whole class. Except one type of

activity (Question and Answer Discussion), all the activities are group-oriented. The nature of the activities of the whole class vary from topic to topic. They are of the following types:-

- (1) Question-Answer type discussion.
- (2) Academic games.
- (3) Dramatization.
- (4) Organizing exhibition.

In this session, pupils come forward with their difficulties. The teacher solves their difficulties first by putting them before the whole class. When they are not able to solve, the teacher comes to their help. Opportunity is given to the pupil to get his difficulty solved first from his classmate. All these activities, except the first one, are conducted groupwise; and at the same time every individual member of a group is kept engaged in some sort of group work. It is supervised by the teacher as well as by the group leader. Moreover, situations are created by asking questions to develop the ability of applying the acquired knowledge of concepts, and facts in similar new situations.

6. Presenting Work Report:

Purpose:

- i) to develop the ability of preparing report of the work done by the individual ^{him} ~~it~~self,
- ii) to inculcate the attitude of shouldering assigned responsibility,

- iii) to know how far the pupils have understood the teaching unit,
- iv) to create confidence to present work report systematically in the presence of the whole class.

Nature of the Work Report : The teacher gives work report sheet to the group leaders and asks them to distribute them among their group members. He gives instructions about how to fill-in the work report. In this work report, pupils have to give information on two points. One is information about the task done as a member of the group, and the other is academic. For the latter, some questions based on the portion done are given and pupils write answers to them as a result of which a brief summary of the unit taught is prepared.

When the pupils have written their work reports, the teacher asks a couple of pupils from each group to present their reports. They stand in front of class and read out their reports loudly.

7. Evaluation of the Unit:

Purpose:

- i) to find out how far the purpose of teaching a particular unit has been served,
- ii) to measure pupils progress in different objectives, &
- iii) to find out the weaker areas of pupils, in the

achievement of particular objectives on which programme for feedback can be planned.

Nature of the Activity : It is teacher-made written test which comprises whole content of the unit. To test, 'knowledge and comprehension', two types of questions, viz. short answer type and objective type are formulated for the unit test to measure the 'skill' for first category i.e. interpretation of symbolic data, unknown map of other state was given, and for second category i.e. 'Locating ideas', unknown passage based on the knowledge of the particular unit, and to measure the attitudes situational types of questions are formulated.

The Feedback:

Purpose - The purpose of the feedback is that wrong information or misunderstood concepts should not be learnt. Collected or acquired knowledge of particular topic should be strengthened in correct perspective.

Nature of the Feedback - After every new activity feedback is to be given at the end of that activity.

The teacher reads the correct answers of the questions in the key sheets and pupils themselves correct accordingly their answers. At the same time, the teacher explains some difficult concepts according to the needs of the pupils.

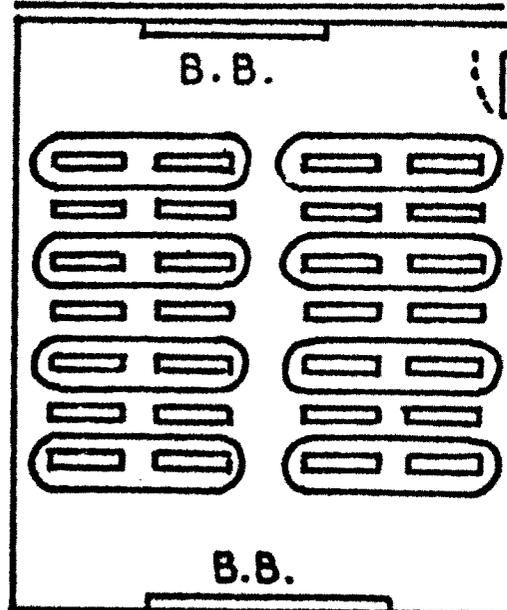
Seating arrangement of the classroom:

There will be two vertical rows of two dual benches.

One group will sit on two dual benches in alternate horizontal row. As class is divided into 7 or 8 groups consisting of six pupils in a group; three pupils have to sit on one dual bench. Thus four groups will sit in one vertical row on the left side of the class and on the right side of the class four groups will sit. (Please see Chart No. 11).

Chart No. 11

SEATING ARRANGEMENT OF THE CLASSROOM



(ORIGINAL PLAN)

▬ - DISPLAY
▬ - BENCHES

Arrangement of the Displays:

In each group, one display is to be given, size of the display is $\frac{1}{4}$ imperial and display is to be exchanged from one group to another as all the members (pupils) of all groups have to complete their work. So turn by turn all the displays i.e. minimum eight, will be passed on to each group.

4.3. Procedural Aspect of the Development of Teaching Strategy

3.a. Try out and Modifications made in new formulated teaching strategy:

The new teaching strategy formulated by the investigator was implemented for try out to consider the feasibility and completeness in actual classroom situation. In this section, only the modifications that were made after each try out are mentioned. The reasons of particular modifications are given in the Chapter V under the Section 'Tryout Study'.

To test the feasibility and completeness of the new teaching strategy, two tryouts were conducted.

First Tryout -

First tryout was conducted in the month of January 1978 in 'The Baroda Education Society's Primary School', Baroda, Gujarat State. After the tryout, following modifications were made in the steps of the teaching strategy, time allotted for each activity, seating arrangement of the classroom and arrangement of the displays.

Modification

The modifications were made only in the following steps of the new teaching strategy.

Orientation Programme - Originally only one period of 35 minutes was allotted to the orientation programme but

it was experienced that one more period is required for it. Hence two periods were allotted for the same.

Step 2 : Exploratory Observation of the display:

During this step pupils had to perform three different activities in one period of ~~30~~⁴⁰ minutes. They are as follows:

Activities -

- | | |
|--------------------------------|------------|
| 1. Observation of the display. | 20 minutes |
| 2. Discussion among the group. | 10 " |
| 3. Feedback. | 10 " |

Modification -

Observation of the display, and	25 "
feedback. These two activities	10 "

are to be conducted in the second step and the discussion among the group is to be conducted separately.

Step 3 : Exploratory work with text book (Content is the same as it is for the Exploratory Observation).

Pupils had to do three different activities in one period of 40 minutes.

Activities -

- | | |
|--------------------------------|-------------|
| 1. Exploratory work. | 20 Minutes. |
| 2. Discussion among the group. | 10 " |
| 3. Feedback. | 10 " |

Modification -

1. Exploratory work. 25 minutes.
2. Feedback. 10 "

These two activities are to be conducted in the third step and the discussion among the group is to be conducted separately.

A major change that had to be made in the original plan was that one separate period was allotted to the activity - "Discussion among the Group" which was to be conducted immediately after the Exploratory work.

Step 6 : Writing and presenting work report. 35 minutes.

Modification -

Writing work report is to be given 35 "
as an assignment. Only presenting
work report is to be conducted.

Arrangement of the Display:

Display is to be passed from one group to another and the size of the display is $\frac{1}{4}$ imperial.

Modification -

Instead of passing on the displays from one group to another, they are to be put up on the walls, four feet high from the floor so that it will be easy for the pupils to observe them. And pupils can move from one display to another according to their needs. Size of the display should be doubled i.e. $\frac{1}{2}$ imperial.

Seating arrangement of the classroom:

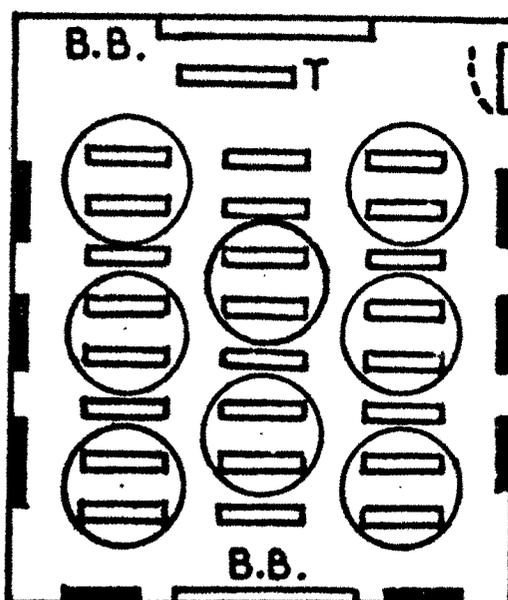
There were to be two vertical rows of two dual benches on which four groups were to sit on each vertical row.

Modifications -

There would now be three vertical rows each consisting of eight dual benches one after another. Three groups would sit in first and third row and two groups would sit in the middle row. Chart No.12 : stepwise seating arrangement of the classroom (After First Tryout) is as follows:-

Chart No. 12

**SEATING ARRANGEMENT
OF THE CLASSROOM**



(AFTER FIRST TRYOUT)

- - DISPLAY**
- ▭ BENCHES**

In the first and second vertical row of dual benches -

1st and 2nd bench.

4th and 5th bench.

7th and 8th bench.

In the middle row -

3rd and 4th bench.

6th and 7th bench.

One group would sit on above mentioned two benches facing each other, i.e. on each bench three pupils would sit.

The above mentioned seating arrangement is only for the following activities:-

- (A) (1) Exploratory work.
- (2) Discussion among the group.
- (3) Group activity, viz. -
 - Academic game, Arranging exhibition,
 - Dramatization.
- (B) For other activities pupils would sit in their groups but facing the Black Board.
- (C) For Exploratory observation, pupils are supposed to move from one display to another according to their needs.

Second Tryout

Second tryout was conducted in the month of March, 1978 in the Adarsha Marathi Shala, Natu Baugh, Poona. Modified teaching strategy was implemented. After second tryout the strategy was finalized for the final experiment

with the following modifications.

Modifications -

Modifications were made only in the following steps of the new teaching strategy.

Orientation Programme - After the First Tryout two periods of 35 minutes each were allotted to the orientation programme, but it was experienced that still one more period was required for it. Hence now in all, three periods were allotted for orientation programme.

- 1st Period - To explain what is social studies and introductory information about the New Teaching Strategy.
- 2nd Period - To acquaint the pupils with the various activities which they will be required to perform and with the instructional materials.
- 3rd Period - To explain the following activities with demonstration:-
- (a) How to use different instructional materials.
 - (b) How to work in a group.
 - (c) How to maintain work report of individual and group work.
 - (d) Working of a group.

Step 2 - Exploratory Observation - Time allotted to the activity was one period.

Modification - One more period is allotted to this activity. It means total two periods are allotted to this activity.

As in the first tryout it was experienced that there should be a separate period for group discussion. This activity should be for the collection of the new information. The task might be completed after the third step. The fourth step, therefore, is "Discussion among the Group".

Step 4 - Discussion among the group. - 35 Minutes.

No change is required.

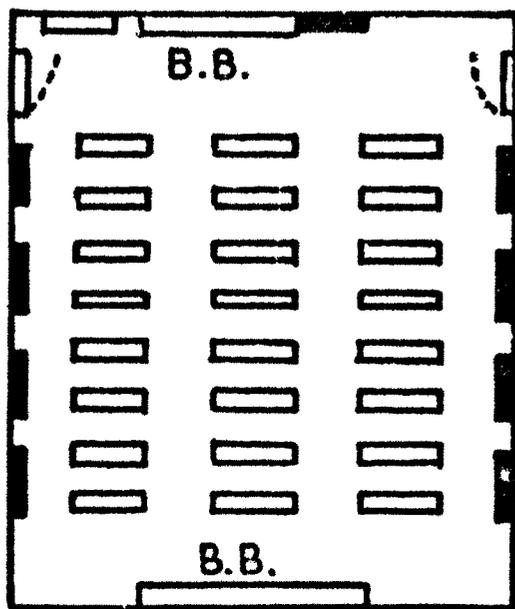
Seating Arrangement of the Classroom

There were three vertical rows of the dual benches. Three groups were sitting in first and third row and two groups were sitting in the middle row. This arrangement was also not adequate for the group working. Hence, slight change was made, to remove four benches from middle vertical row towards the first vertical row facing to this vertical row and four benches towards the third vertical row facing to this vertical row. Then each group would sit on three benches two benches from side row and one bench from middle row. (Please refer Chart No.13 of Classroom Arrangement).

Chart No. 13

SEATING ARRANGEMENT
OF THE CLASSROOM

(Final)



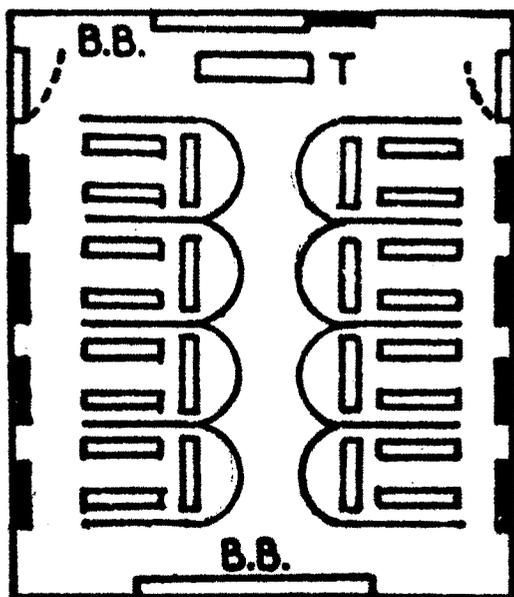
(STEPWISE PLAN)

■ - DISPLAY
□ BENCHES

Steps of New Strategy :

1. Introduction.
2. Activity for the whole class.
3. Feedback session.
4. Presenting work report.
5. Unit Test.

SEATING ARRANGEMENT
OF THE CLASSROOM



1. Exploratory observation.
2. Exploratory work.
3. Group discussion.
4. Special Activity.

For Exploratory Observation pupils move from one display to another according to their need.

Thus after two tryouts, the new teaching strategy was ready for the final experiment. To conclude this Section, the following salient features can be stated.

4.4. Salient features of the New Teaching Strategy

The new teaching strategy consists of a series of learning experiences organized through individual and group activities. Hence it reveals the following salient features.

1. Varied Learning Experiences:

The new teaching strategy provides a series of varied learning experiences through individual and group activities. For example, in the activity "Exploratory Observation of the Display", the pupils individually observe the charts, maps, etc. and if they have any difficulty they take the help of their classmates or of the teacher. They find out answers to the given questions and write them down on the given key sheet and thus learning takes place; in other words, pupils understand particular concepts or events. If we analyse this activity, we come to know that according to Wesley E.B. and Adams M.A., five types of learning experiences, i.e.

- (1) Experimenting : trying, searching, thinking.
- (2) Observing : comparing, recalling, perceiving.
- (3) Co-operating : Sharing, talking, taking turn, helping.

(4) Creating : Writing.

(5) Learning : Understanding. ; are included.

(For other activity : Please refer Table No.4 in the present chapter).

2. Activity-oriented : (Motivational Aspects)

The new teaching strategy consists of a wide variety of activities which motivate the pupils for learning. In other words, it is activity-oriented. Except the first step : "Introduction to new topic" all the steps of the teaching strategy consist of a variety of activities, viz.

(1) Exploratory observation of the displays.

(2) Exploratory work with the text books.

(3) Discussion among the groups.

(4) Dramatization.

(5) Academic games.

(6) Arranging exhibition. etc.

These activities facilitate the pupils to acquire new knowledge, develop certain skills as well as certain attitudes. The impact of all these activities leads to achieve the goal of teaching social studies.

3. Ample use of Instructional Materials:

The above mentioned different activities require different types of instructional materials. Hence, in the new teaching strategy ample use of instructional materials such as different visual aids, printed and cyclostyled materials is made. The visual aids used consist of maps,

pictures, graphic charts and printed and cyclostyled materials. The maps give various types of information about the region. Pictorial and graphic charts providing information about different events give specific thoughts or explain certain concepts. The printed and cyclostyled material consists of text books, key sheets, questionnaires, work reports, and are made use of as self-learning devices. These different types of instructional materials promote the interest of pupils in learning and generate initiative on their part.

4. Learner-dominated teaching strategy:

It can be stated that the new strategy is learner-dominated because except the first step of teaching strategy, the activities in all the steps are learner-oriented. Unless pupils perform particular activities they cannot acquire any knowledge of the teaching topic. Thus the new teaching strategy makes the learner an active participant in the learning process. In other words, under the new teaching strategy, the learner is made to play a dominant role in the teaching-learning process.

5. Teacher as a Guide:

In the new teaching strategy, the teacher scarcely dominates the field because except the first step of the teaching strategy all the remaining steps are pupil-oriented. Hence the main task of teacher is to guide the activities of the learners. His role is that of a director and conductor of various activities. He also supervises

the class-work and observes whether pupils are proceeding task on right lines. If they need any help he is there to guide them and to solve their difficulties. Thus the learning process goes on smoothly. So one significant feature of the new strategy is the teacher's role as a guide, friend and supervisor.

6. Democratic Atmosphere:

In the new teaching strategy, learning takes place through different activities which provide varied learning experiences. In these activities every pupil does his task individually at his own speed. He who finishes his work earlier helps his other group members. Pupils are also free to talk, to consult or to help each other. The main responsibility of each individual is to complete his task as a responsible member of the group. Thus the new teaching strategy develops democratic atmosphere in the learning process.

The following illustrative charts give a clear picture of the new teaching strategy and brings out the difference between conventional teaching strategy and the new teaching strategy which promotes democratic spirit and atmosphere.

The idea behind the following two charts is taken up from the article of Massialas B.C. and Sprague N.E.¹¹ and it is used to illustrate the difference between the two teaching approaches.

Chart No. 14

Model of the New Teaching Strategy

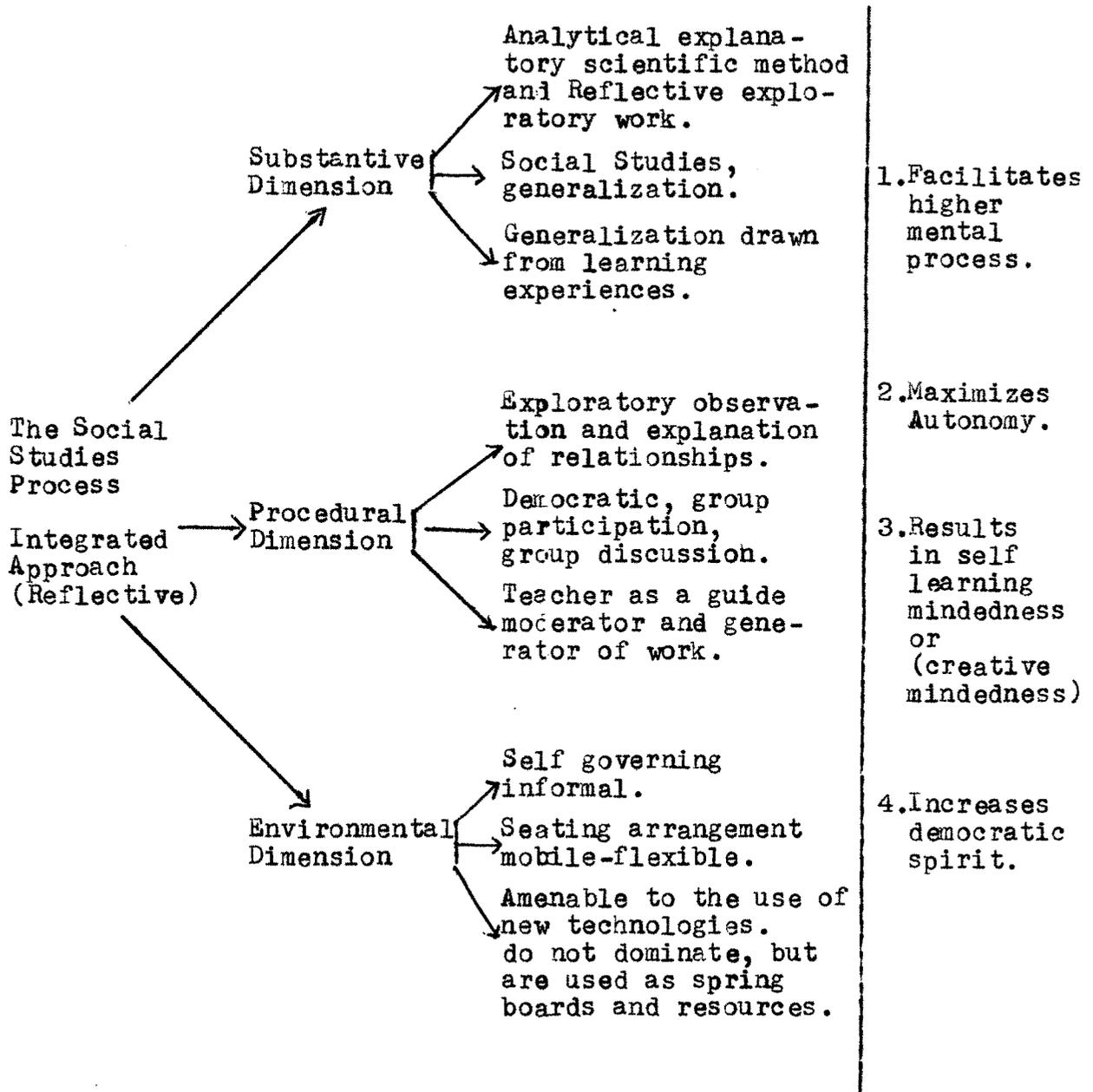
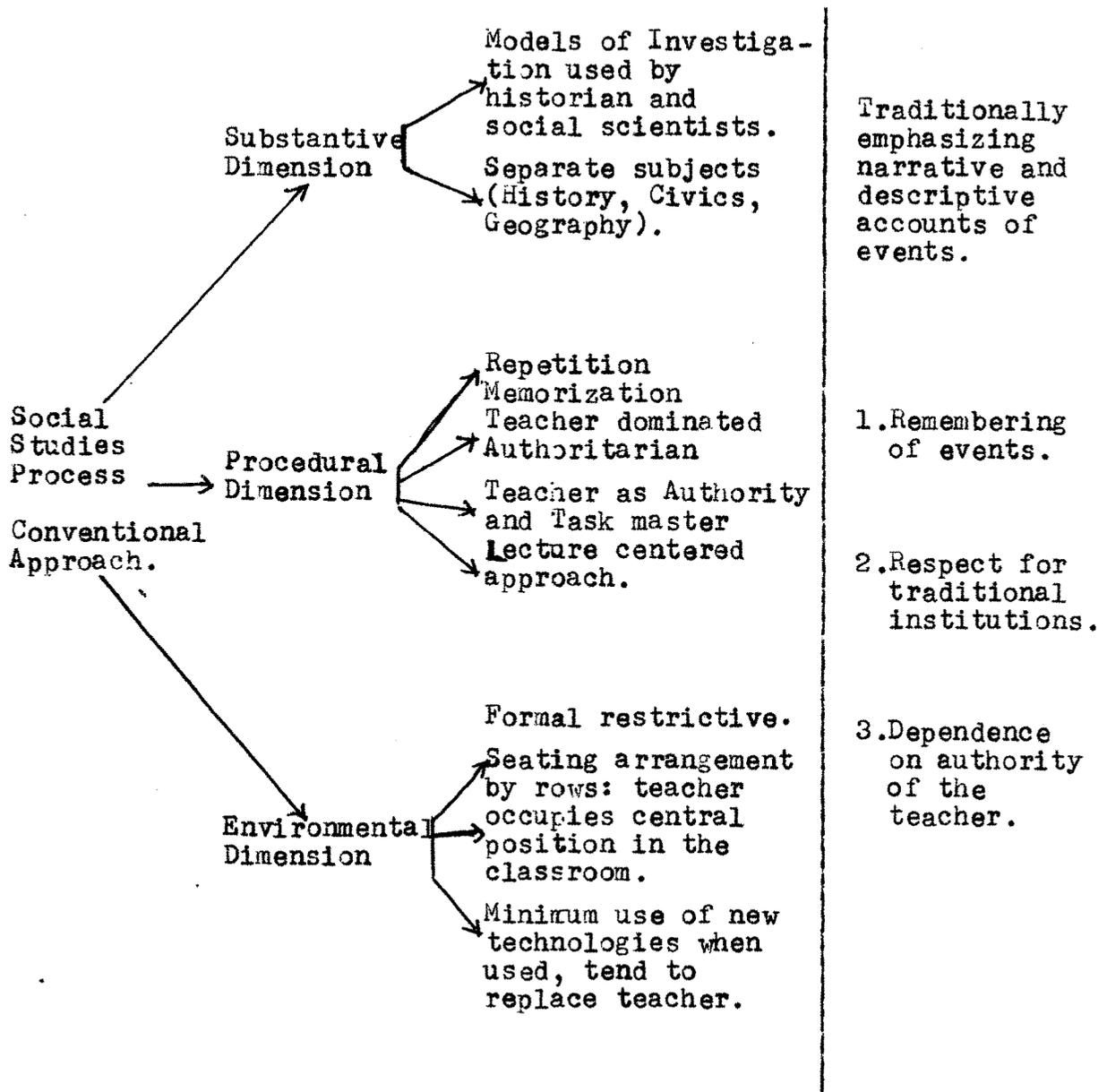


Chart No. 15

Conventional Teaching Strategy Model



4.5 DEVELOPMENT OF ACHIEVEMENT TEST

5.1. Introduction

An evaluation procedure or programme is an integral part of the process of providing purposeful learning experiences. Tests, questionnaires and other instruments by means of which evidence is gathered, provide basis for judging growth towards the objectives. Therefore, an Achievement Test is designed to measure the attainment of the achievement performance. Before developing the Achievement Test, a discussion had to be made about its nature and content. It had mainly two aspects:-

- (1) Theoretical aspect of the construction of the test.
- (2) Procedural aspect of the construction of the test.

5.2. Theoretical aspect of the construction of the Test

2.a. Definition of Instructional Objectives and Selection of the Content:

In the present study, teacher made short answer test was developed. The test was based on the objectives which were expected to be achieved through integrated approach to the teaching of social studies. It mainly aimed at assessing the achievement of the following objectives specifically in terms of behavioural changes in the pupils.

I. Knowledge and Comprehension

- (A) Facts : Pupils recall factual information about -
- (a) Occupation of the people of Maharashtra.
 - (b) Geographical requirement for the growth of crops.
 - (c) Effect of Jijamata's teaching on Shivaji.
- (B) Concepts : Pupils explain the following concepts -
- (a) Physical features of the land.
 - (b) Climate.
 - (c) Historical.
- (C) Generalizations : Pupils recall facts, concepts and principles and make generalizations about:-
- (a) Utilization of man-made resources.
 - (b) Climatic conditions of the region.
 - (c) Speed and length of the river.
- (D) Relationships : Pupils establish cause and effect relationship between the -
- (a) Geographical conditions and man's way of living.
 - (b) Man's struggle against the nature and his way of life.
 - (c) Utilization of man-made resources and occupations of the people.
- (E) Interpretation of cause and effect relationships--
- Pupils interpret the following relationships:-
- (a) The breadth and fertility of a river-basin depend upon the nature of the region through which the river flows.

- (b) The climate of a particular region is determined by its physical features.
 - (c) In a particular type of climate particular types of crops are grown.
- (F) Interpretation of Facts - Pupils explain the following geographical facts:-
- (a) Some river basins are wide and fertile while others are narrow and barren.
 - (b) Use of power resources is made in the occupations of the people.
 - (c) Man's way of life depends upon the geographical conditions of the region.

II. Skill

- (A) Interpretation of symbolic data : Pupils read the following symbolic data and interpret the same correctly:-
- (a) A map of an unknown state showing physical features, dams, rail routes.
 - (b) A diagram of climatic situation of a particular place.
- (B) Locating the ideas - Pupils read the given unknown passages and find out the following concepts from them:-
- (a) Man's way of life.
 - (b) Natural resources and man-made resources.
 - (c) Similarity between two known and unknown historical events.

III. Attitudes

- (a) Co-operation.
- (b) Respect for opinion of others.
- (c) Regard for authority.
- (d) Responsibility.

Pupils are kept in an imaginary situation and are asked to take a particular position in that situation.

2.b. Table of Specification:

The table of specifications interacts with the process of writing the questions; each influences the other. The table of specifications keeps the teacher aware of the emphasis, when he is building his test. The actual weighing of a given part of the total test score can be determined only approximately by the number of items allotted to that part. The table of specifications serves the test-maker like a blueprint. It specifies the nature of each item in the test. Three items are constructed to measure each category of each specific objective.

The following table of specifications of the achievement test gives a total picture of the achievement test.

TABLE 6

Table of Specifications for the Achievement Test

Objective	Content					
	Unit I The Man and his physical environment and its Benefits to his descendant.	Unit II The Man and his way of life. Why he has this particular type of way of life	Unit III Man's struggle against Natural Environment. Man's efforts for prosperous life.	The Man and his occupation (only Farming)	Group and individual working	Totals
	Items	Items	Items	Items		
I. Knowledge & Comprehension						
a)Facts	1	3	-	1	-	5
b)Concepts	1	1	1	-	-	3
c)Generalization.	1	-	1	1	-	3
d)Relationships.	-	1	1	1	-	3
e)Interpretation of Facts.	1	1	1	-	-	3
d)Interpretation of cause effect relationships.	3	3	-	3	-	9
						<u>26</u>
II.Skill.						
a)Interpretation of symbolic data	4	1	4	-	-	9
b)Locating ideas.	2	1	2	-	-	<u>5</u>
						14
III.Attitudes.						
a)Cooperation	-	-	-	-	6	6
b)Respect for others opinion.	-	-	-	-	4	4
c)Regards for constituted Authority.	-	-	-	-	4	4
d)Responsibility.	-	-	-	-	2	<u>2</u>
						16
Total Items	13	11	10			

According to Table of specifications, specific content from each unit for evaluating an objective of specific category was determined. The next important task was to prepare the actual test items. It is dealt with in next section.

2.c. Composing Test Items:

There are two major types of short-answer test items : the 'supply' and the 'Selection' type. In the past these were called 'recall' and 'recognition' types respectively. But it is better to use the terms 'supply' and 'selection' which tell whether the pupil must supply the words, numbers, or other symbols for his answer or select his answer from the given alternatives.

The following forms of test items were selected for constructing the achievement test, for evaluating different objectives.

TABLE 7

The form of test items and Objective to be evaluated

<u>Part I - Knowledge and Comprehension</u>	
i) Simple question. (Supply type)	I.(a) Facts
ii) Completion. (Supply type)	II.(a) Concepts
iii) Multiple Choice (Selection type)	(b) Generalization
iv) Multiple Choice (Selection type)	(c) Relationship
v) Simple question (Supply type)	III.(a) Interpretation of 1) Facts
vi) Multiple Choice (Selection type)	2) Relationship.

<u>Part II - Skill</u>	
vii) Simple question (Supply type)	I. Interpretation of symbolic data.
viii) Simple question (Supply type)	II. Locating Ideas.

<u>Part III - Attitudes</u>	
(1) Constant alternative (two alternatives) (Selection type)	(1) Co-operation.
(2) Constant alternative (two alternatives) (Selection type)	(2) Respect for opinion of others.
(3) Constant alternative (two alternatives) (Selection type)	(3) Regard for constituted Authority.

After determining the types of items to evaluate each category of each specific objective, items were written and a rough draft of the achievement test was prepared.

The objective-wise distribution of the items is as under:

(1) Knowledge and Comprehension	...	26 items
(2) Skill	...	14 "
(3) Attitude	...	16 "
Total	...	<u>56 items</u>

Thus in all there are 56 items and each item carries approximately one mark.

A rough draft of achievement test was given to the evaluation experts for reviewing the items.

2.d. Reviewing and Editing the Items:

The rough draft of achievement test, was given to a panel of experts in evaluation, for reviewing the test items in the light of the following criteria.

- (1) Does each test item measure an important learning outcome included in the table of specification ?
- (2) Is the type of each item appropriate for the particular learning outcome to be measured ?
- (3) Does each item present a clearly formulated task ?

- (4) Is the item stated in simple clear language ?
- (5) Is the item free from extraneous clues ?
- (6) Is the difficulty level of the item appropriate for the pupils to be tested ?
- (7) Do the items provide adequate coverage of the table of specifications ?
- (8) Are the weightages given to the objectives and content proper ?

In the light of the suggestions and comments of the experts the following modifications were made in the criterion test.

Suggested Modification in Achievement Test

Part I

Sr.No. of the Question	Original forms of the Question.	Changed form of the question.
Que. I (a)	Supply type	Selection type
Que. II a,b,c.	Supply type	Selection type

Part II

Que. II a,b,c.

These items were reformulated and were stated in simple clear language.

5.3. Procedural Aspect of the Development of the Test

3.a. Tryout of the Test:

The original test was modified as per suggestions

of the experts, and after their final approval it was ready for the tryout. As the experts opined that it was not necessary to conduct the tryout of the second part of the Test, the tryout only of the first part was conducted. The Second Part consists of items based on the objectives of skills and attitudes which are covered by the Integrated Approach only. Hence the First Part of the achievement test was administered to the pupils.

Sample for the tryout of the test.

The test was administered to thirty seven pupils of the IV Standard of a school. In that school there were three divisions A, B, C of Std. IV. These divisions were formed on the basis of the pupils' respective performance in the last annual examination so that 'good' pupils were allotted 'A' Division, 'average' pupils 'B' Division and those 'below average' were placed in the 'C' Division.

So thirteen (13) pupils from each division were randomly taken for ~~the~~ administering the test. But actually thirty seven (37) pupils appeared for the test. After assessing the answer sheets they were arranged in order of the achievement scores. Then for the evaluation of the test 27% answer sheets i.e. 10 sheets from the higher group and 27% answer sheets i.e. 10 sheets from the lower group were taken for analysing items for the purpose ~~of~~ to get rid of poor or inappropriate ^{items} to the measurement task items or to evaluate the effectiveness of the items.

The findings of the item-analysis are as under:-

Table 8

3.b. Information of the Item Analysis of the Achievement Test:

Q.No.	Sub. Q.No.	Higher Group correct response	Lower Group correct response	Facility (F)%	Discrimination (D)	Action
I	* a	3(3)	1(0)	20(15)	0.2(.3)	Revise
	b(i)	7	3	50	0.4	Retain
	b(ii)	4	2	30	0.2	Retain
	c	6	2	40	0.4	Retain
II	* a	2	0	10	0.2	Retain
	b	2	1	15	0.1	Retain
	c	5	2	35	0.3	Retain
III	* a	6(3)	6(0)	60(15)	0 (.3)	Revise
	* b	7	5	60	0.2	Retain
	c	9	2	55	0.7	Retain
IV	* a	9	7	80	0.2	Retain
	b	9	4	65	0.5	Retain
	c	4	1	25	0.3	Retain
V	a	5	0	25	0.5	Retain
	b	4	0	20	0.4	Retain
VI	a	6	1	35	0.5	Retain
	* b	3	1	20	0.2	Retain
	c	6	4	50	0.2	Retain
VII	* a	3(2)	2(0)	25(10)	0.1(.2)	Revise
	b	7	1	40	0.6	Retain
	c	5	0	25	0.5	Retain
VIII	a	8	3	55	0.5	Retain
	b	10	3	65	0.7	Retain
	c	7	3	50	0.4	Retain

NOTE: Outside the circle - 1st tryout score
 Inside the circle - 2nd tryout score
 * These items require explanation.

Acceptable value : 'F' value (20% to 80%), in some cases.

(15% to 90%)

'D' value (0.2 to 0.8)

The reasons for revising or retaining particular items are as under :-

Que: I(a) - Although all of the distractors in this item are working and the difficulty level is acceptable and it discriminates well. It was revised to make all distractors more plausible.

Que: II(a) and (b) - and Que: VI (b) - Though 'D' value is less, these items are retained because they are difficult but good items. They meet all of the criteria and are therefore retained.

Que:III(a) This item seems easy. Although all the distractors in this item are working and the difficulty level is acceptable, the item fails to discriminate adequately. It is therefore revised.

Que:III(b) and IV(a) - These items are easy items but good items. They fulfil all the criteria and are, therefore, retained.

Que:VII(a) This item tends to be too difficult and although all of the distractors in this item are working of the difficult level is not acceptable, the item fails to discriminate adequately. It was therefore, revised.

The rest of the above items are retained.

All the distractors in these items are working, the items are of the acceptable difficulty level, and they discriminate well between the two criterion groups. Hence they are good items and are therefore, retained.

The revised form of the tryout was administered to the same group. The Table of item analysis indicates that all the items are at acceptable level of difficulty, and they discriminate well between two criterion groups. They are therefore, good items and are retained. After the necessary modifications of the test items, the test was administered again and then it was finalized for the present study. The Blue Print and the Final form of the test are given below:-

Objectives	Attitudes			Respon- sibility	Totals
	Att t	Respect for others opinion	Regards for con- stituted Authority		
Specifications of the objectives Content					
Unit I The Man and his physical environ- ment and its benefits to his descendant.	S	-	-	-	12(13)
Unit II a)The Man and his way of life. b)Why he has this particular type or way of life.	S 7	-	-	-	11(12)
Unit III Man's struggle against natural environment, man's efforts for pros- perous life.		-	-	-	10 (8)
Unit IV The Man and his occupation (Farming)		-	-	-	6 (8)
Group working Class "		lon Selec- tion Type 4(4)	Selection Type 4(4)	Selec- tion Type 2(2)	16(16)
Total		4(4)	4(4)	2(2)	56(56)

3.d. Final Form of the Test:

The Blue print of the final form of the test gives a comprehensive and clear picture of the Achievement Test. The test consists of two types of items viz. (38) thirty eight items of the selection type and (18) eighteen items of supply type. In the selection type items, two forms of question viz. Multiple Choice and Constant Alternative type were used. In supply type items two forms of questions viz. simple question and completion type were used. This clearly indicates that the Achievement Test is an objective type test.

Weightages given to different (a) objectives, and (b) Content, are discussed below:-

(a) Weightages to objectives:

The objective-wise distribution of the items is as under:-

1) Knowledge and Comprehension	...	26 items
2) Skill	...	14 items
3) Attitude	...	16 items

Total	...	56 items

In terms of percentages :

46 % Items were based on Knowledge & Comprehension.

25 % Items were based on Skill.

29 % Items were based on Attitude.

It means more weightage (46%) is given to the objective, 'knowledge and comprehension' because, it is

the intellectual foundation of the educative process on which other objectives are based. Another reason is practical and theoretical. There are six aspects or categories of the objective 'knowledge and comprehension' which have to be measured in terms of pupils achievement performance, consequently, items were constructed on each category or aspect of that objective.

(b) Weightages to the Content:

The test comprised the content of three and half units i.e. three units complete and one part of the fourth unit. Because the complete unit IV was taught in experimental group but second part of this unit was not taught in control group. On each unit from 10 to 12 items were constructed i.e.

Unit I	-	12 items
Unit II	-	12 items
Unit III	-	10 items
Unit IV Part I	-	6 items
Group working (situational types)	-	16 items

Thus the achievement Test comprised the content of all four units in equal proportion. It means equal weightage for content matter has been given to each unit.

Thus the test was developed on scientific lines and it was ready for administration.

The script of the Achievement Test scoring key and marking scheme are given in Appendix (**B**).

4.6 CONCLUSION

The most important aspect of the present study was the development of instructional strategy with respect to Integrated Approach to teaching social studies which has been presented in this chapter. While developing the instructional strategy both the theoretical and procedural aspects were taken into consideration. It includes three major aspects of the educative process viz. (1) Syllabus: content organization, (2) Teaching strategy (3) Evaluation procedure: Achievement Test.

The organization of the content matter into different units of the Integrated syllabus, was based upon three principles:

- 1) The new concept of the subject social studies and its implication.
- 2) Principle of Relationship i.e. interaction.
- 3) Psychological principles: Theory of Learning.

And this is the main difference between the prescribed syllabus and the new Integrated Syllabus of Social studies. To implement the Integrated Syllabus into practice, effective teaching strategy was developed. The activities, like exploratory observation, exploratory work, discussion among the groups were the basic elements of the new strategy. One more important aspect of the teaching strategy was that all the learning experiences were arranged through individual and group activity which would lead to

develop democratic spirit in the class working. Next to measure the attainment of the pupils after the manipulation of the new treatment, successful evaluation procedure was required, so an achievement test was developed. The test was objective type which measured the attainment of the pupils in each specific objective set forth for the Integrated Social Studies Course.

In conclusion, it can be stated that the implementation of the newly developed instructional strategy for the Integrated Approach resulted in achieving the goal of teaching social studies. How the teaching was actually conducted by means of the newly developed instructional strategy in the experimental groups has been described in the next chapter.

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